



**STRATEGIC BUSINESS PLAN  
FOR  
WATER SUPPLY SERVICES**

**JANUARY 2011**



Shire of  
**Gunnedah**  
Land of Opportunity



## Acknowledgment

This Strategic Business Plan was prepared by Gunnedah Shire Council with the assistance of the Strategic Water Management Unit of NSW Public Works -Water Solutions.

The Plan is based on a workshop held on 19 - 20 May 2010 in which Councillors and senior Council staff were represented.



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# Gunnedah Shire Council Strategic Business Plan for Water Supply January 2011

## Summary

### Introduction

This Strategic Business Plan covers the development and operation of Gunnedah Shire Council's Water Supply Schemes. It provides supporting information for Council's Management Plan.

### Corporate Objective for Water Supply

Council has adopted the following objective for its water supply services:

**To provide and sustain Gunnedah and villages with an adequate and safe public water supply**

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

### Scheme Outline

Gunnedah Shire Council operates four water supply schemes for servicing Gunnedah, Curlewis, Mullaley and Tambar Springs. Water is pumped directly from bores to reservoirs and from there to residences. Bore water does not require filtration, treatment or chemical additives. All water supplies are classified as "Untreated Good Quality Groundwater".

Council has recently installed three chlorination plants for Gunnedah scheme to maintain statutory levels of residual chlorine to mitigate possible microbiological contamination in the reticulation system. All three village supplies are treated with sodium hypochlorite.

A more detailed description and service area maps of Council's water supply schemes are presented in Part A of this Business Plan.

## Operating Environment Review

Review of operating environment explores the internal and external conditions under which Council delivers services now, and those, which will be likely to prevail in the future. Details are given in Part C of this Business Plan.

## Principal Issues

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

- Meeting adopted levels of service and compliance with NOW Best Practice Guidelines
- Security of water supply
- Water quality issues of village supplies
- Water allocation to accommodate growth
- Increasing reservoir storage capacity
- Meeting customer service expectations and community consultations
- Managing and funding long-term capital works program
- Systematic rehabilitation and renewal of ageing assets

## Service Provision

### Levels of Service

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

- Availability of service
- Pressure
- Service complaints,
- System failures,
- Response times and complaints,
- Water 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         |
| <b>AVAILABILITY OF SERVICE</b>  |                                      |                  |                |
| <b>Normal Quantity Available:</b>   |                                      |                  |                |
| Domestic Peak day   | L/tenmnt./ day                       | 2,800            | 2500           |
| Domestic Annual Consumption   | Kl/tenmnt./ year                     | 395              | < 350          |
| Total Annual Consumption (10 year average for Gunnedah only)                | ML/year                              | 2,450            | 2400           |
| Total Peak Daily Consumption  | ML/day                               | 17               | < 15           |
| Peak Week to Average consumption (Gunnedah only)                            | %                                    | 184              | < 200          |
| <b>SUPPLY INTERRUPTIONS TO CUSTOMERS</b>                                    |                                      |                  |                |
| <b>Unplanned<sup>@</sup>:</b>   |                                      |                  |                |
| - Water main breaks   | No./ year<br>(No./100 Km)            | 30<br>(20)       | < 20<br>(< 15) |
| - Average duration  | Hours/event                          | 4                | 4              |
| - Frequency   | No./ year per<br>1000<br>properties  | 8                | < 6            |
| <b>CUSTOMER FEEDBACK/ COMPLAINTS<sup>@</sup></b>                            |                                      |                  |                |
| Water quality complaints  | No./ 1000<br>connections             | 1                | < 0.2          |
| Service complaints  | No./ 1000<br>connections             | 2                | < 1            |
| Billing and account complaints  | No./ 1000<br>connections             | 2                | <1             |
| Other complaints  | No./ 1000<br>connections             | 1                | <1             |
| <b>Response Times for Feedback/ Complaints</b>                              |                                      |                  |                |
| Percentage of calls answered by the operator within 30 seconds <sup>@</sup> | Seconds                              | 100              | 100            |
| General complaints and inquiries:   |                                      |                  |                |
| - Written complaints  | Working Days                         | 10               | 10             |
| - Personal/ oral complaints   | Working Days                         | 1                | 1              |
| <i>Note: Times apply for 95% of complaints</i>                              |                                      |                  |                |
| <b>ENVIRONMENT</b>  |                                      |                  |                |
| Net greenhouse gas emissions <sup>@</sup>                                   | Tonnes CO <sub>2</sub><br>eqv./ year | 1,070            | < 1000         |

| DESCRIPTION  | UNIT                     | LEVEL OF SERVICE |                |
|--|--------------------------|------------------|----------------|
|  |                          | Current          | Target         |
| <b>WATER QUALITY (Potable Water)</b><br>(Should meet ADWG, NHMRC&AWRCM 2004) |                          |                  |                |
| <b>Microbiological Parameters:</b>   |                          |                  |                |
| Total coliforms  | CFU/100ml                | 0                | 0.0000         |
| E-coli form  | CFU/100ml                | 0                | 0.0000         |
| Sampling frequency   | Samples/month            | 4                | 4              |
| <b>Physico-chemical Parameters:</b>  |                          |                  |                |
| pH   | Unit                     | 7.0 – 8.0        | 6.5 – 8.5      |
| Colour   | HU                       | < 1              | <15            |
| Turbidity  | NTU                      | < 1              | < 5.0          |
| Free available chlorine (Reticulation)                                       | mg/L                     | 0.3              | 0.5 – 1.0      |
| Iron   | mg/L                     | 0.01             | < 0.3          |
| Manganese  | mg/L                     | 0.005            | < 0.1          |
| Sampling and analysis frequency  | No./year                 | G – 2<br>V – 1   | G – 2<br>V – 1 |
| <b>Percentage Compliance with ADWG 2004</b>                                  |                          |                  |                |
| Zones achieving compliance with  | No. / Total No. of zones |                  |                |
| – Physical parameters  |                          | 4/4              | 4/4            |
| – Chemical parameters <sup>@</sup>   |                          | 1/4              | 4/4            |
| – Microbiological parameters <sup>@</sup>                                    |                          | 4/4              | 4/4            |

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 water supply services to its customers. These are:

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

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


## **Actions**





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

The notable actions and outcomes Council will take over the next 10 years include:

- Apex Reservoir (4 ML) for emergency storage
- Service extension to industrial area developments
- Curlewis water quality improvement
- Bore renewal program
- Ongoing water mains renewal program
- Borthistle reservoir (4 ML)

## Objectives

| Key Result Area  | Objective   | Performance Target   |
|--|---|--|
| <p><b>Customer Service</b></p>  | <p>To provide water services which are economically feasible and financially affordable and meet current legislation and guidelines</p> | <p>Annual performance review of SBP objectives and actions</p>   |
|  | <p>Services provided within the designated service areas and extended outside this area at Council's discretion</p>                     | <p>Service area extended as required</p>   |
|  | <p>Encourage wise use of water</p>  | <p>Complete water loss management program by June 2011</p> <p>Promote Save Water Alliance initiatives</p> <p>Reduce water consumption to 350 KL/tenement</p>               |
|  | <p>Ensure town water supplies do not fail in times of drought</p>   | <p>Implement Drought Management Plan recommendations as required</p>   |
|  | <p>An equitable pricing policy which provides for current and future service provision and encourages wise resource use</p>             | <p>Achieve 75% residential revenue from usage charges from 2011/12 onwards</p> <p>Review and update development servicing plan by September 2010</p>                       |
|  | <p>Community to be aware of systems and have a sense of ownership and respect for the systems</p>                                       | <p>Conduct community surveys as part of general Council survey every 5 years</p> <p>Achieve 90% satisfaction level from on-going customer complaints resolution survey</p> |
|  | <p>Consult community on major decisions as required</p>   | <p>Consult community on options for Curlewis water quality improvements by June 2011</p> <p>Consult community on adoption of new development servicing plans</p>           |

| Key Result Area  | Objective  | Performance Target   |
|--|--|--|
| <b>Environment</b><br>      | Manage the water supply system to prevent adverse environmental impact and make optimal use of resources                   | Ongoing monitoring of aquifer areas to ensure sustainability             |
| <b>Asset Management</b><br> | To operate water supply schemes in a manner which meets levels of service in the most efficient way                        | Meet agreed levels of service and control operating costs                |
|  | Maximise overall system reliability at minimum cost to meet design levels of service                                       | Prepare a Maintenance Plan by June 2011                                  |
|  | Capital works program provides facilities to deliver quality, capacity and reliability to meet service delivery objectives | Carry out capital works program on time and within budget                |
| <b>Human Resources</b><br> | Have appropriate level of skilled staff to meet service delivery objectives  | Have an updated Human Resources Plan for Water Services by December 2010 |
| <b>Finance</b><br>        | Ensure current and future affordability to deliver services while maximising funding opportunities                         | Review and update Financial Plan annually                                |

## Summary of Projected Financial Position

Following Table presents the summary of projected financial position of Gunnedah Shire Council's water 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. All values are in 2009/10 dollars.

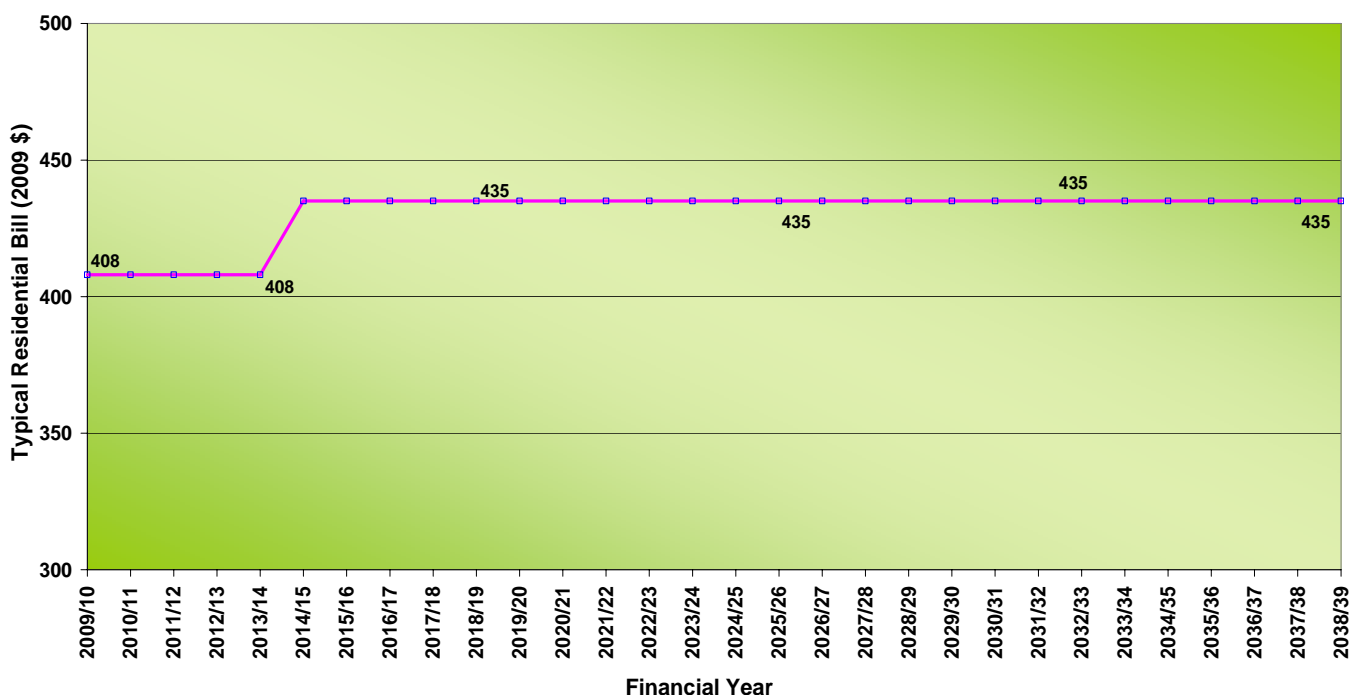
### Summary of Projected Financial Position

| 2009/10 \$ (000)              | 2009/10 | 2013/14 | 2018/19 | 2023/24 | 2028/29 | 2033/34 | 2038/39 |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Estimated Total Revenue       | 2,274   | 2,284   | 2,370   | 2,341   | 2,325   | 2,330   | 2,378   |
| Estimated Total Expenditure   | 1,942   | 2,119   | 2,228   | 2,223   | 2,291   | 2,259   | 2,276   |
| Operating Surplus / (Deficit) | 332     | 165     | 142     | 118     | 34      | 70      | 102     |
| Acquisition of Assets         | 827     | 1,909   | 1,910   | 410     | 610     | 1,010   | 410     |
| Principal Loan Payments       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| Borrowings Outstanding        | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| Cash and Investments          | 4,419   | 4,067   | 3,205   | 2,765   | 1,713   | 1,250   | 2,302   |
| Total Assets                  | 37,966  | 38,163  | 38,212  | 38,156  | 38,043  | 38,009  | 37,938  |
| Total Liabilities             | 3       | 3       | 2       | 2       | 2       | 1       | 1       |

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

Financial modelling has demonstrated that the typical residential water charge, measured in 2009 dollars, can be maintained at the current \$408 p.a. level for the next 3 years (till 2013/14). Typical residential charge need to increase to \$435 p.a. from year 2014/15 onwards for the remainder of the 30-year forecast period (see Figure below) as Council plans to pay dividend from operating surplus in accordance with NOW Best Practice Guidelines. This level of charges is sufficient to maintain liquidity with a minimum of \$1 Million of cash in hand over the period.

### Typical Residential Water Bill





All the planned capital works will be internally funded throughout the projection period. There are no existing external loans in the water fund and this will be the case throughout the forecast period as no new borrowing will be required.

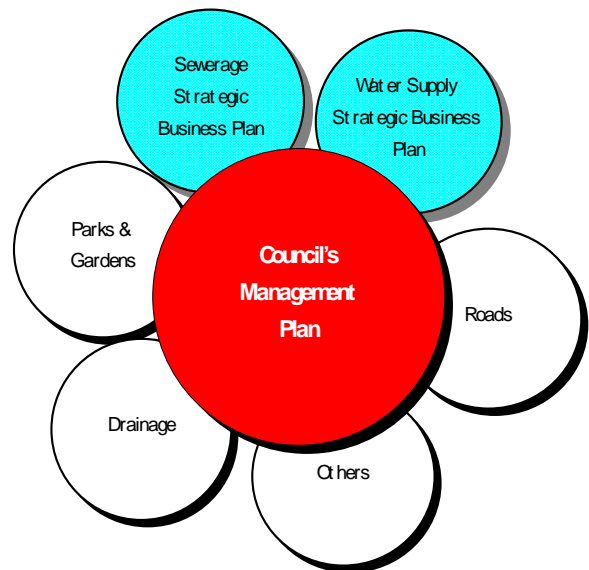
See Part C for more financial projection details.



## 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 **water supply** services. The relationship between Council's Management Plan and the Strategic Business Plans for the various areas is shown on the right.

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

## Strategic Planning Benefits

The strategic business plan aim to:

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

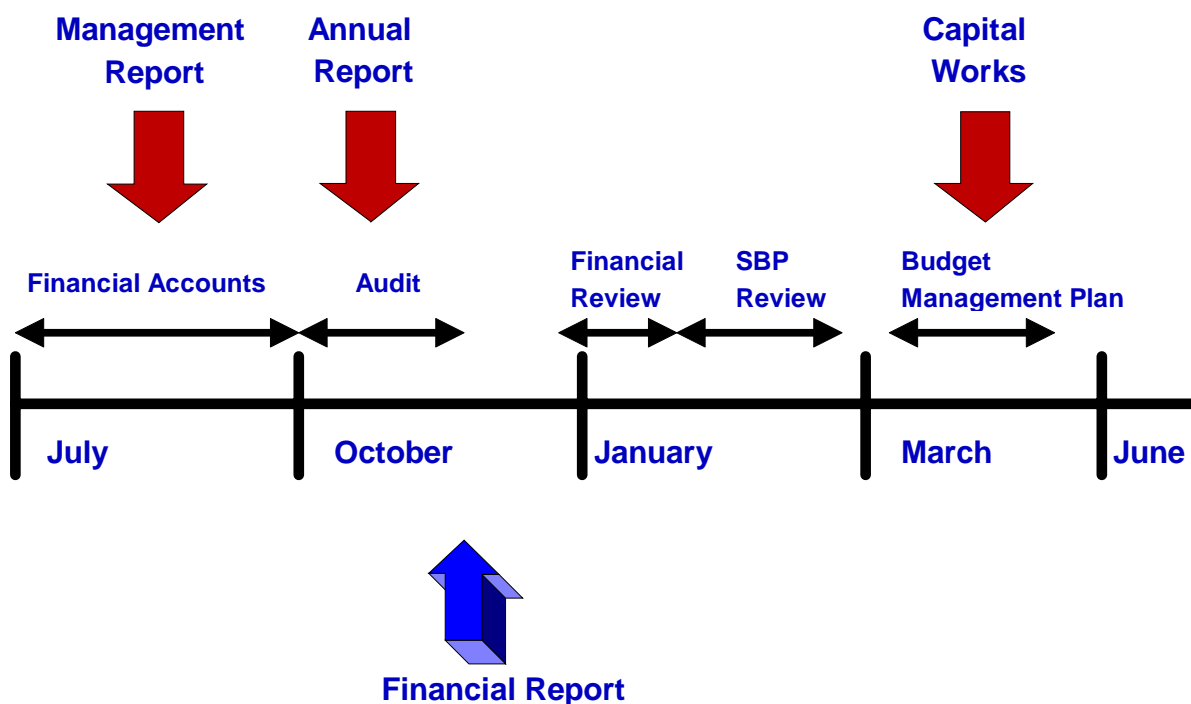
- Identify financial and other resources required to operate these services on a commercial basis;
- Provide a long term price path for each service;
- Assist in development of an affordable capital works program;
- Enable Council to model 'what-if' scenarios and see their rating impact; and
- Allow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

Strategic Business Plans are considered desirable for all councils but specifically NOW 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.

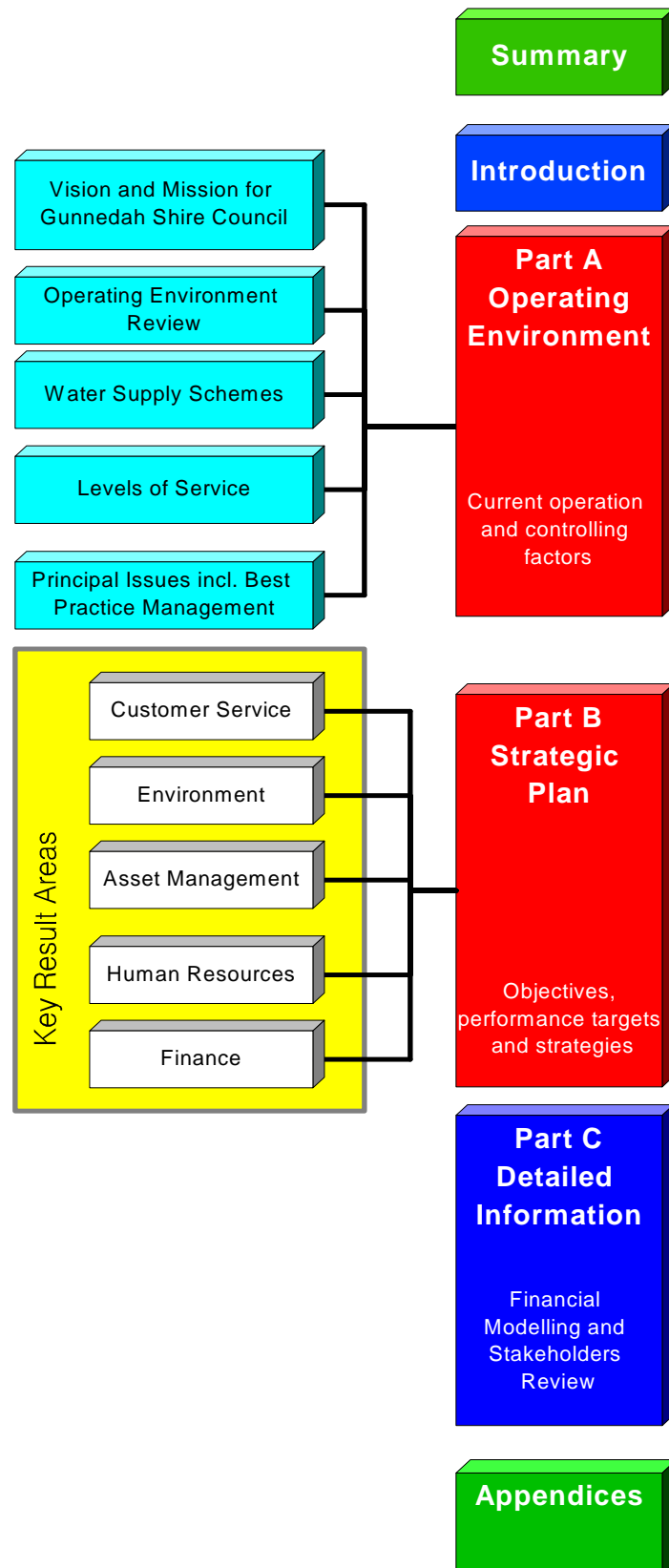
The Plan also communicates scheme information to stakeholders and demonstrates that the scheme is being well managed.

## Planning Cycle



## Structure of this 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 Gunnedah Shire Council looking to a 30-year planning horizon
- ❑ Operating Environment
- ❑ Review of Existing Water Supply Scheme
- ❑ Levels of Service
- ❑ Principal Issues
- ❑ Best Practice Management.

**Part B** is the Strategic Plan for the water supply 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 that indicate the future planning direction.

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

## Corporate Vision

Council's corporate vision is:

**To be a focussed community valuing Gunnedah's identity and quality lifestyle**

## Corporate Mission

The corporate mission of the Council is:

**To promote, enhance and sustain the quality of life in Gunnedah Shire through balanced economic, environmental and social management in partnership with the people**

## Organisational Values

Council has adopted a number of organisational values, which represent its basic convictions about what is right and wrong. They provide guidelines and beliefs that a person uses when confronted with a situation in which a choice must be made. These are:

- Equity
- Integrity
- Leadership
- Openness and accountability
- Customer satisfaction
- Commitment to safety
- Efficient and effective use of resources

## Objective for Water Supply

Council has adopted the following objective for its water supply services:

**To provide and sustain Gunnedah and villages with an adequate and safe public water supply**

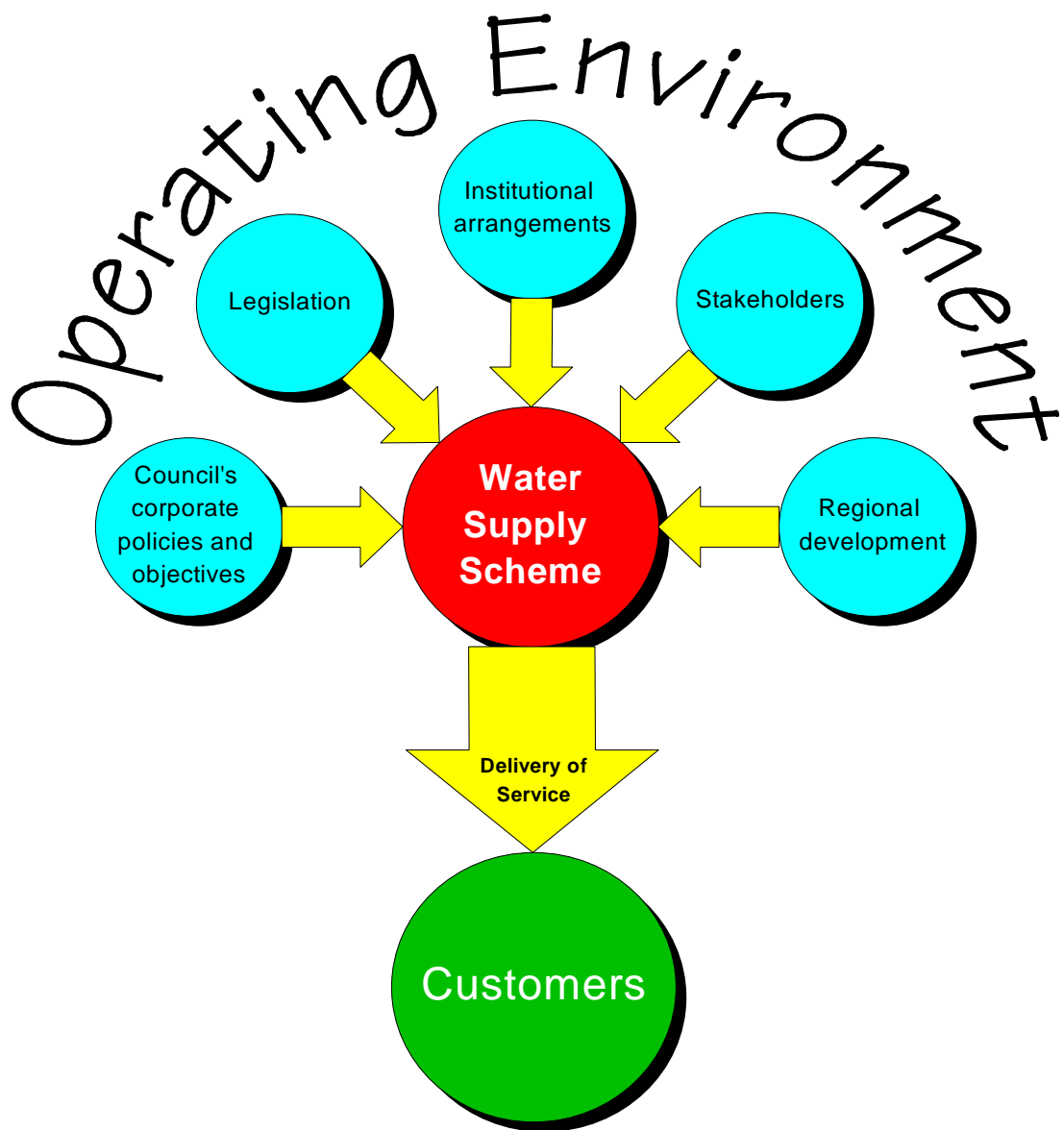
The implications of Council's vision, mission and corporate values for the provision of the water supply services are:

- 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
- 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 be made more aware and knowledgeable about water supply planning issues.

# Operating Environment

The delivery of water supply 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. 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 water supply services, changing service requirements due to the key factors influencing the operating environment need to be accounted for. Council considers the following factors as having significant influence on the future water supply and sewerage services provided and the quality of life in general of the residents of Gunnedah Shire Council:

### **Population and Age Profile**

- ABS Census data, 2006 indicates that the population growth in the Council has been steadily decreasing at an average rate of 0.8% p.a. during the last decade and a half. Due to the ongoing mining and gas exploration activities since last census the trend appears to have been reversed.
- Council estimates that it is currently experiencing higher than 1.0% p.a. population growth rate due to the number of mining expansion and exploration activities going on in and around the Shire. While a medium term average population growth of at least 0.5% p.a. for next 5 years is a distinct possibility, Council has adopted a conservative 0.2% p.a. for future long-term growth projections for all planning purposes.
- Council residents' age profile indicates higher percentage of aged population compared to State-wide average. This trend is expected to continue
- About 16% of the Council population is aged over 65 years. This proportion is expected to increase in future as the trend of young people migrating out of the Council area for higher studies, better employment opportunities etc. continues

### **Commercial growth and Industrial Development**

- Gunnedah Shire is on the Sydney – Gunnedah Coal Basin, one of the largest underground coal seams in NSW. Large coal mining and allied industries such as coal washeries and engineering plant and equipment hugely contribute to the Shire economy.
- Multinational companies such as BHP Billiton, Benelabri and Shenhua Water Mark have been granted licences for coal exploration during the last 3 years. Hence, more new coal mines are expected to start full scale operations that will bring further industrial growth to the Shire.
- Gunnedah Shire also boasts huge gas reserves. A number of coal seam gas explorations also are being carried out since early 2009. An estimate put the available gas to be able to supply to the whole of Australia for more than 100 years.
- Other major development projects that have recently started operation or in the pipeline include the New Water Leathers tannery, ethanol plant, North West Business Park on the former abattoir site, coal devolatilising plant and Flying Academy.
- Consequent to the mining and industrial growth, a number of restaurants and motels have come up or are under development in Gunnedah town.
- Gunnedah, despite the recent spurt in mining and industrial growth, is a well-known agricultural base of NSW. Major crops grown include cotton, wheat, barley, and sorghum with annual gross output value of more than \$ 55 million
- There are also livestock based commercial activities thriving in the shire and the outputs are worth more than \$15 million a year.
- Council also has a thriving agricultural service industry.

- Any declining agricultural commodity price will have adverse economic impact on the Council population

### **Health and Education**

- Gunnedah Nursing Home has been recently extended with 30 additional beds.
- Federal Government has announced funding of a rural health centre “GP Super Clinic” to be constructed in the existing hospital grounds and will provide medial and allied health facilities and training
- A high standard of education is available with a choice of either State or Private Schools. The New England University at Armidale is just 2 hours drive from Gunnedah town.
- The New England Institute of TAFE – Gunnedah Campus offers a wide range of Government accredited and locally designed courses.

### **Environment**

- Council places high priority on environmental protection and applies ecologically sustainable development (ESD) principles as referenced in the Local Government Act.
- Council’s vision for healthy and sustainable natural environment will influence all other Council policies and programs

### **Transport and Tourism**

- Gunnedah located at the cross roads of Oxley Highway and Kamilaroi Highway and is linked to major cities by air (from Tamworth), rail and road services. The North-West rail line runs through Gunnedah Shire, passing through Breeza, Curlewis and Gunnedah. There are daily passenger services by ‘Explorer’ trains to and from Sydney in six hours and major services for all types of freight.
- Diverse range of sporting, cultural and recreational activities are available all year round to both visitors and residents of Gunnedah Shire and promotes itself as the ‘Koala Capital of the World”
- The “Ag-Quip Field Days” is claimed to be the largest agricultural supermarket in the Southern Hemisphere
- Major tourist attractions include Lake Keepit State Park, Poet Dorothea Mackellar Memorial, 150 Degrees East Meridian and Gunnedah Rural Museum

### **Technology and Information**

- Council recognizes difficulties in predicting the impacts of rapidly changing technologies and is prepared to be flexible to adopt new technologies that provide benefits and opportunities to Council’s services to its residents.
- Good telecommunication, internet, tele-conferencing and satellite communication network, wireless internet using Next-G Telstra network are available in the Council area

### **Government Legislation/ Policy**

- More regulation, stringent enforcement and fewer subsidies from Government, proposed policies such as water sharing policy, Water Enquiry Commission recommendations is expected to impose heavy burden on Council resources and responsibilities



# Water Supply Scheme

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

## Existing Schemes

### Scheme Histories

Council operates four town water supply schemes. These are:

- Gunnedah
- Curlewis
- Mullaley
- Tambar Springs

Refer to Figure 1 for the map of the Shire showing the location of these towns. Water is pumped directly from bores to reservoirs and residences. Bore water does not require filtration, treatment or chemical additives. All water supplies are classified as “Untreated Good Quality Groundwater”.

### Groundwater Entitlements

Groundwater licence entitlements allocated to Council for supply of water to the towns and villages are listed below. These entitlements are reviewed every 5 years.

- Gunnedah – 3900ML
- Curlewis – 198ML
- Mullaley – 59 ML
- Tambar Springs – 42ML

### Water Quality Monitoring

#### *Microbiological*

Microbiological samples are collected from Gunnedah’s water supply on a weekly basis, and from surrounding villages every month. Samples are collected by Council’s Water Quality Officer and are independently tested by the Public Health Department for compliance with Australian Drinking Water Guidelines.

Council has recently installed three chlorination plants for Gunnedah scheme to maintain statutory levels of residual chlorine to mitigate possible microbiological contamination in the reticulation system. All three village supplies also are chlorinated with sodium hypochlorite.

#### *Chemical*

Chemical samples are collected from Gunnedah’s water supply every 6 months and annually for the villages.

In order to ensure the water is of the highest quality Council has the following policies:

- Very strict backflow and cross connection control
- Rural residential connections require break tanks
- Industrial premises have reduced pressure zone devices (RPZD)
- Parks and Garden are double checked
- All new or replacement water meters have dual check valves incorporated into design
- Meters are replaced every 10 years
- Surveys are carried out on potentially high risk services

## Gunnedah Scheme

The Gunnedah Scheme is the largest and oldest of Council's water supply scheme that has been in operation since 1900. The current licence entitlement is 3900ML per annum compared to the previous 10-year average usage of 2450 ML per annum. The scheme serves a population of about 8,000.

The scheme draws its water from 11 Groundwater bores with a daily capacity of 20ML, via 3 transfer pump stations. There are 5 Reservoirs with a total capacity of 19.5ML.

The system has 140 kilometres of water mains with pipe sizes varying from 80mm to 500mm. The bulk of connections have pipe sizes within the range 20-150mm. The Gunnedah water supply service area is shown in Figure 2.

Gunnedah is divided into 3 pressure zones:

Low Zone – lower or northern section of town and serviced by the South Street reservoir.

High Zone – Middle area of town serviced by Links and Apex Road reservoirs.

Third Zone – Top end of town and serviced by Gallen reservoir.

These areas have been created so that pressure levels can be maintained to an acceptable level and growth areas throughout the township are given a reliable supply.

## Curlewis

The Curlewis water supply has been operating since 1972 and services a population of 604. The current licence entitlement is 198 ML per annum compared to previous 10-year average usage of 120 ML per annum.

The scheme draws its water from 2 Groundwater bores with a daily capacity of 1.5 ML. There is one reservoirs with a total capacity of 1 ML.

The system has 19.3 kilometres of water mains with pipe sizes varying from 100mm to 150mm. The bulk of connections have pipe sizes in the range 100 - 150mm.

The scheme's service area is shown in Figure 3.



## Mullaley

The Mullaley water supply has been operating since 1972 and currently services a population of about 100. The current licence entitlement is 59 ML per annum compared to previous 10-year average usage of 25 ML per annum.

The scheme draws its water from 2 groundwater bores with a daily capacity of 0.5 ML. There is 1 reservoir with a total capacity of 0.2ML. The system has 3.8 kilometres of 100 mm size water mains.

The scheme's service area is shown in Figure 4.

## Tambar Springs

The Tambar Springs water supply is the latest water supply scheme operated by the Council. The scheme started operations in 1990 and services about 100 people. The current licence entitlement is 42 M/L per annum compared to previous 10-year average usage of 20 M/L per annum.

The scheme draws its water from 2 groundwater bores with a daily capacity of 0.5 ML. There are 3 Reservoirs with a total capacity of 0.15 ML. The system has 11.5 km of water mains of pipe size ranging from 40 -100mm.

The scheme's service area is shown in Figure 5.

Figure 1 – Map of Gunnedah Shire Council

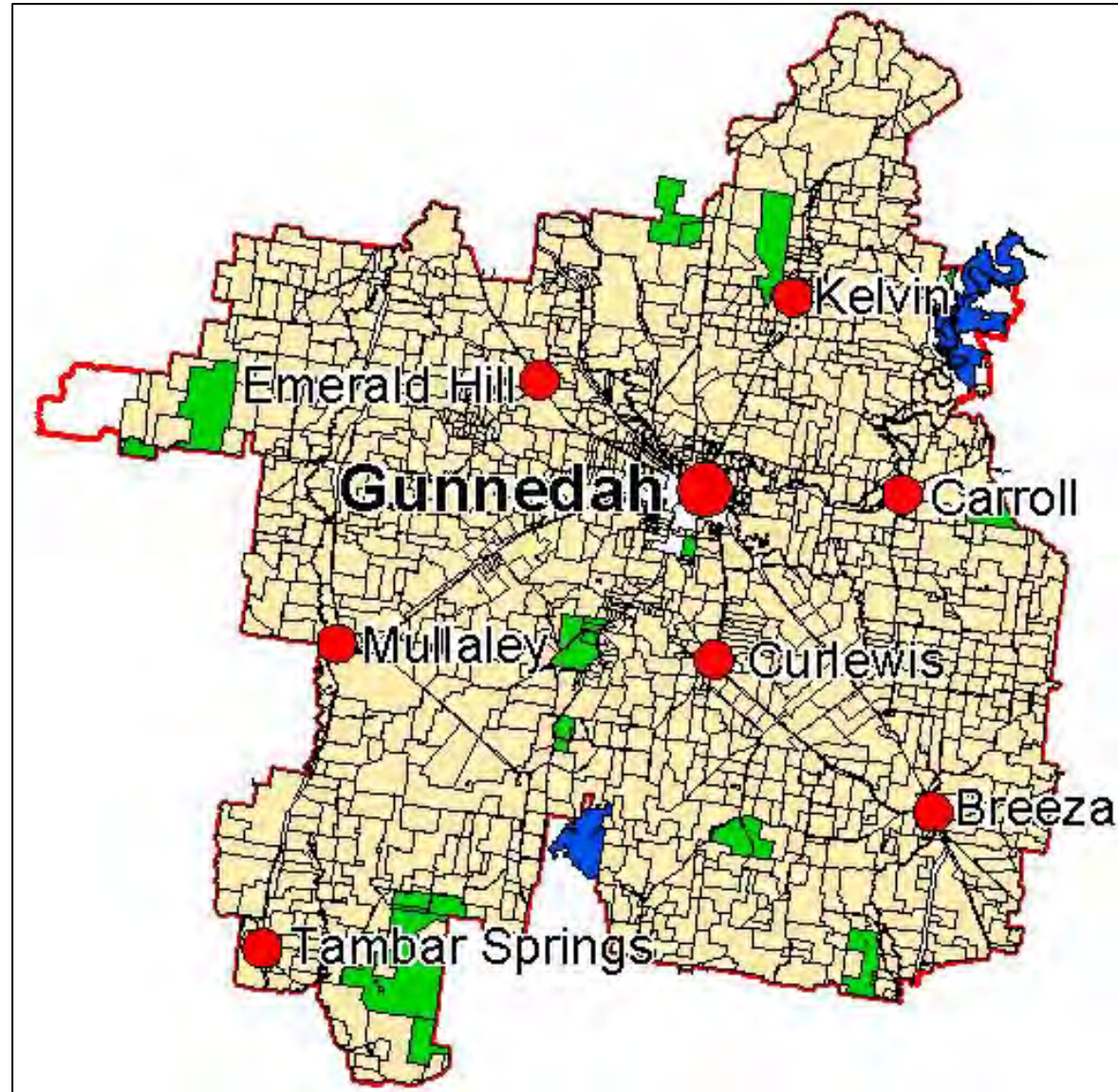




Figure 2 – Gunnedah Town Water Supply Service Area Map

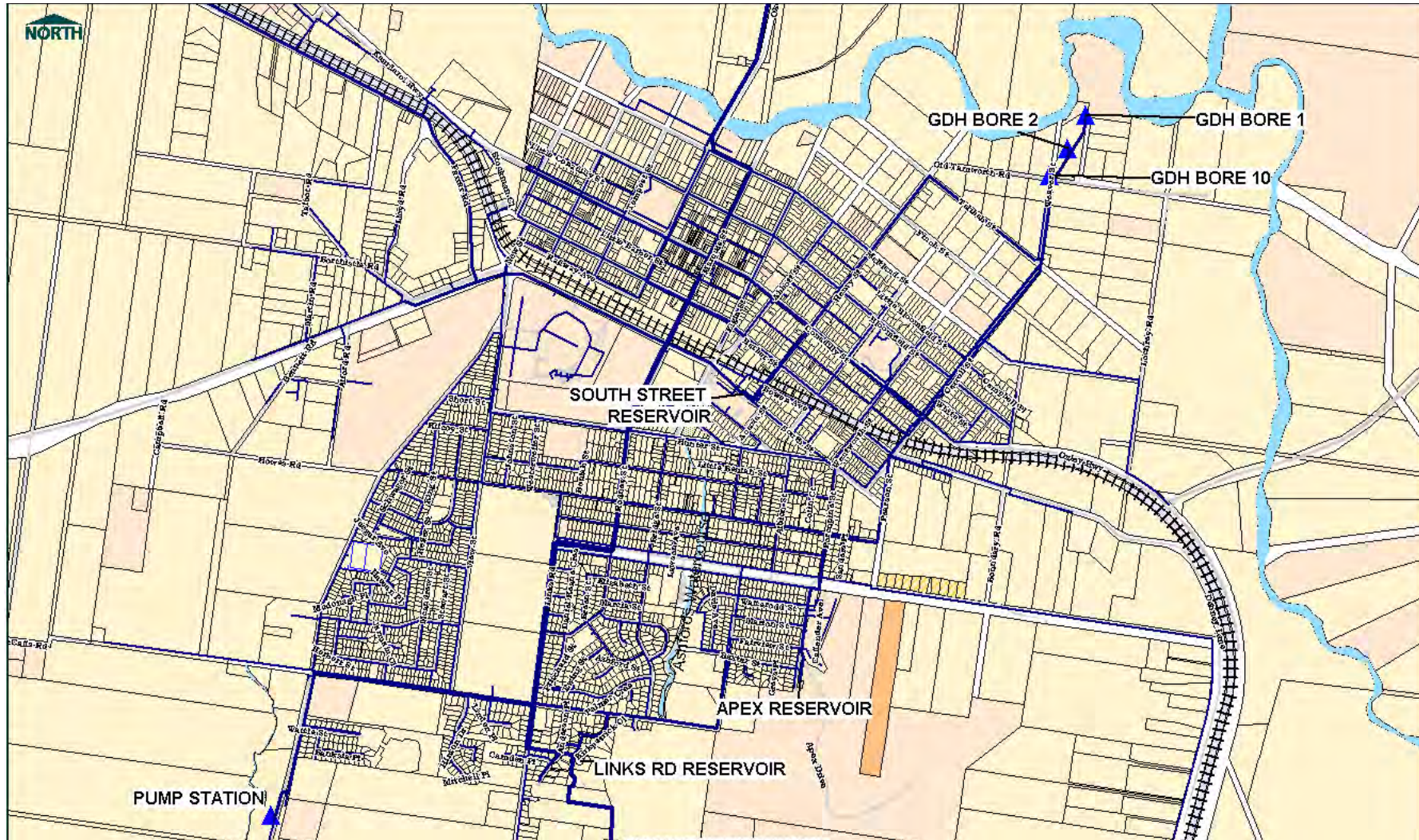




Figure 3 – Curlewis Water Supply Service Area Map

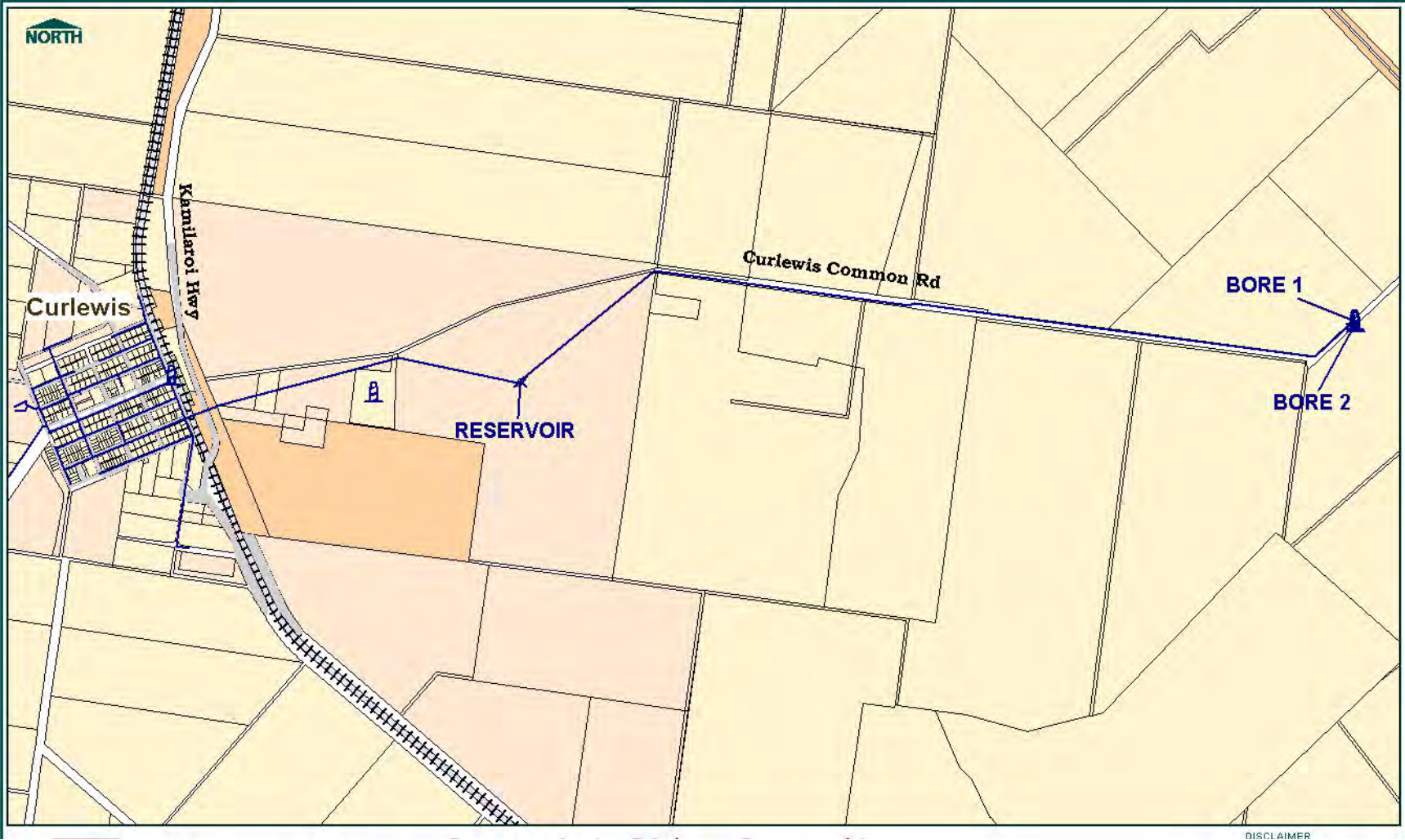


Figure 4 – Mullaley Water Supply Service Area Map

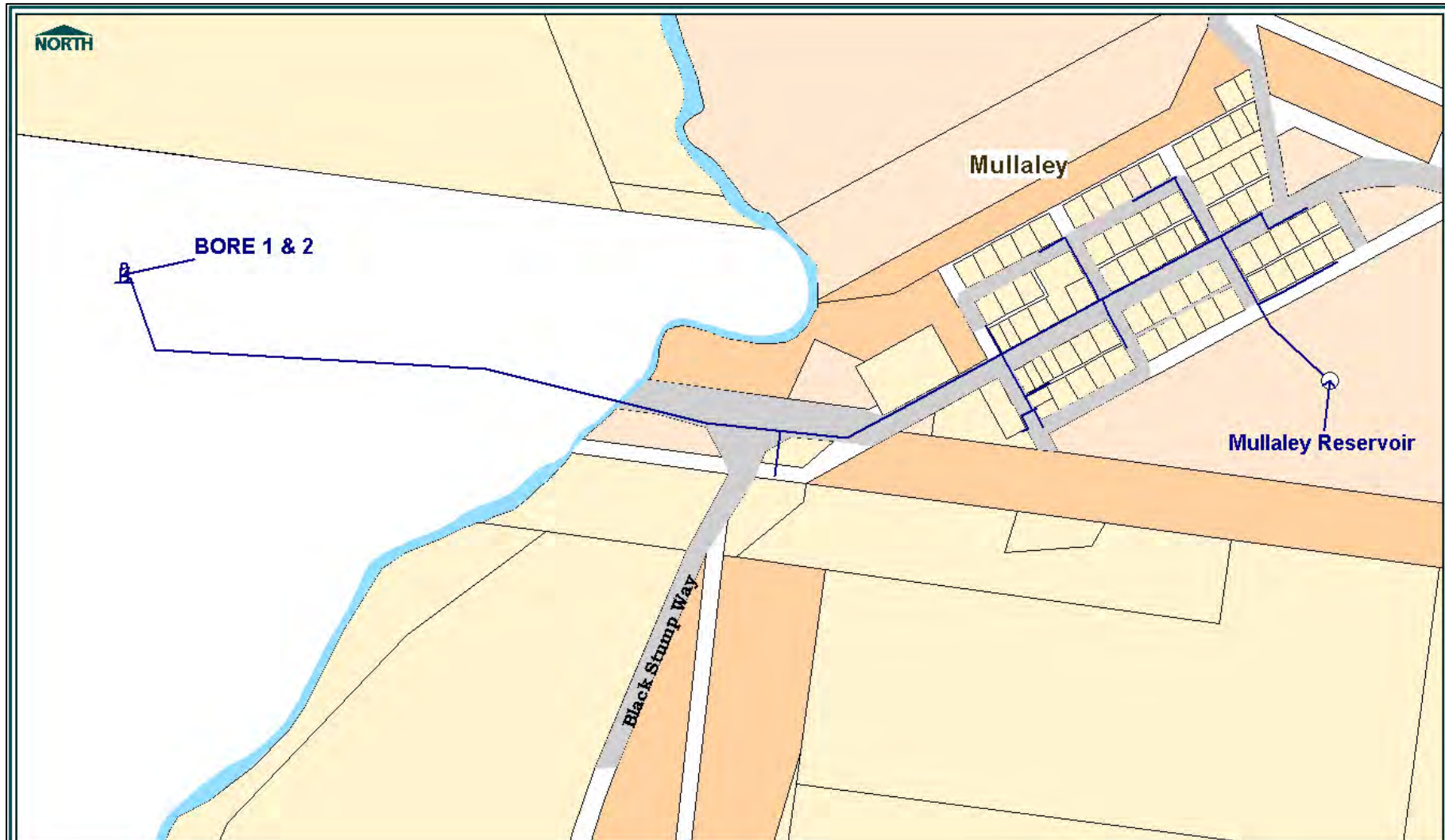
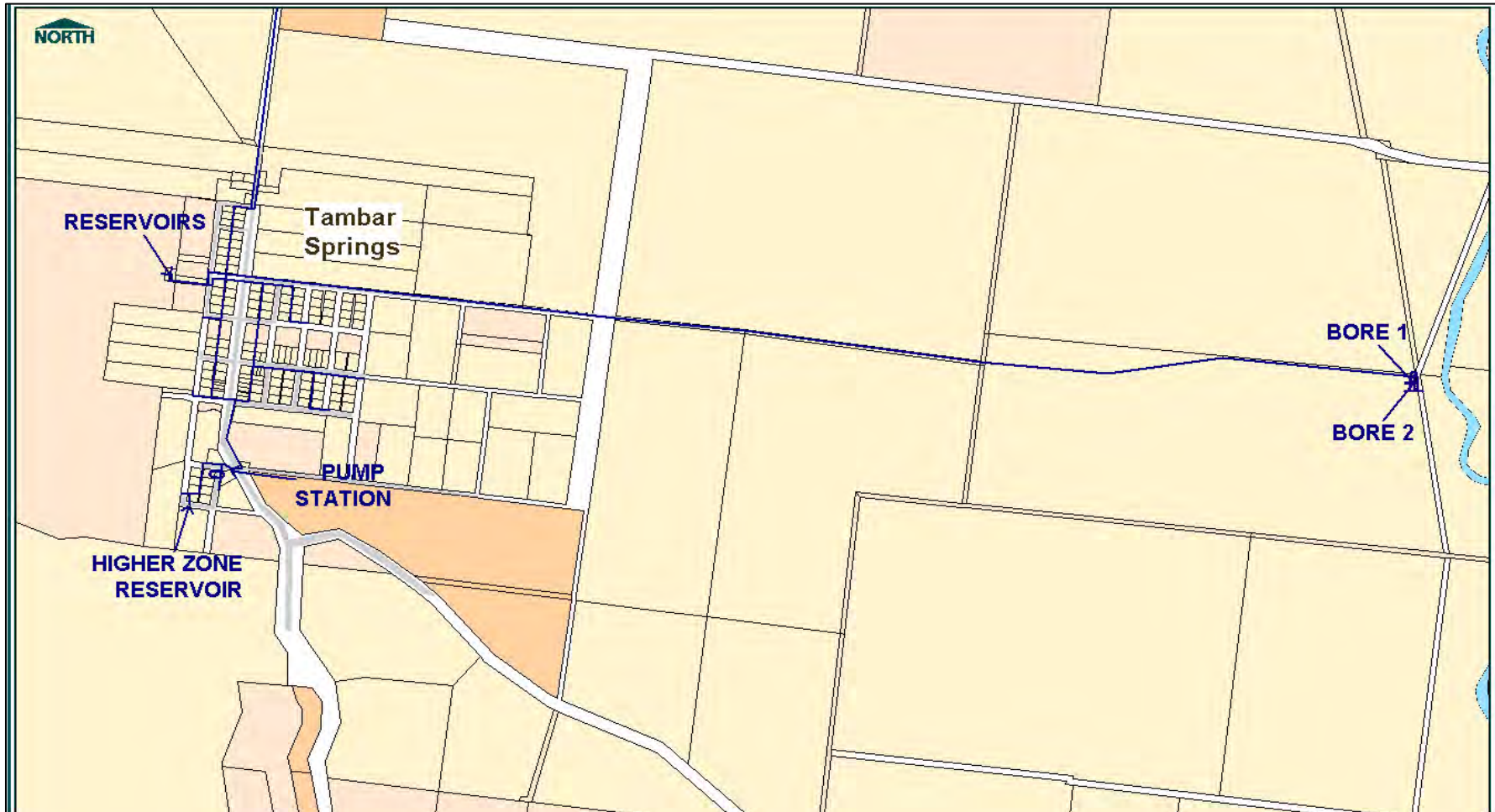


Figure 5 – Tambar Springs Water Supply Service Area Map





## Assets Summary

Gunnedah Shire Council has prepared an Asset Register and the locations of all major water supply assets have been recorded. Council is continuously updating the asset register.

Council has recently carried out valuation of their water assets as required by the Department of Local Government. The current replacement cost of system assets as at June 2009 was \$51.88 Million (\$11,330/assessment). Based on this Asset Valuation, most water supply assets are ageing but considered to be in good condition.

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

The condition of Council's major water assets is summarised in the Table below.

| Asset  | No./ Length/ Capacity | Average Remaining Life (Years) | Condition<br>1 – As new<br>5 – Poor |
|--|-----------------------|--------------------------------|-------------------------------------|
| <b>Bores</b>                                 |                       |                                |                                     |
| - Curlewis                                   | 2 Nos.                | 30                             | 3                                   |
| - Gunnedah                                   | 11 Nos.               | 25                             | 3                                   |
| - Mullaley                                   | 2 Nos.                | 30                             | 3                                   |
| - Tambar Springs                             | 2 Nos.                | 50                             | 2                                   |
| <b>Water Mains</b>                           |                       |                                |                                     |
| - Curlewis                                   | 20.0 Km               | 51                             | 2                                   |
| - Gunnedah                                   | 162.0 Km              | 52                             | 3                                   |
| - Mullaley                                   | 3.9 Km                | 50                             | 2                                   |
| - Tambar Springs                             | 11.5 Km               | 55                             | 2                                   |
| <b>Reservoirs</b>                            |                       |                                |                                     |
| - Curlewis                                   | 1 Nos.                | 50                             | 2                                   |
| - Gunnedah                                   | 5 Nos.                | 33                             | 3                                   |
| - Mullaley                                   | 1 No.                 | 37                             | 4                                   |
| - Tambar Springs                             | 3 Nos.                | 30                             | 3                                   |
| Transfer pump stations (Gunnedah)            | 3 stations            | 40                             | 2                                   |
| <b>Chlorination plants</b>                   |                       |                                |                                     |
| - Curlewis                                   | 1 No.                 | 25                             | 2                                   |
| - Gunnedah                                   | 3 No.                 | 30                             | 1                                   |
| - Mullaley                                   | 1                     | 25                             | 2                                   |
| - Tambar Springs                             | 1                     | 25                             | 3                                   |
| Others (Building, Plant and equipment, etc.) | -                     | 17                             | 3                                   |

## Future Development

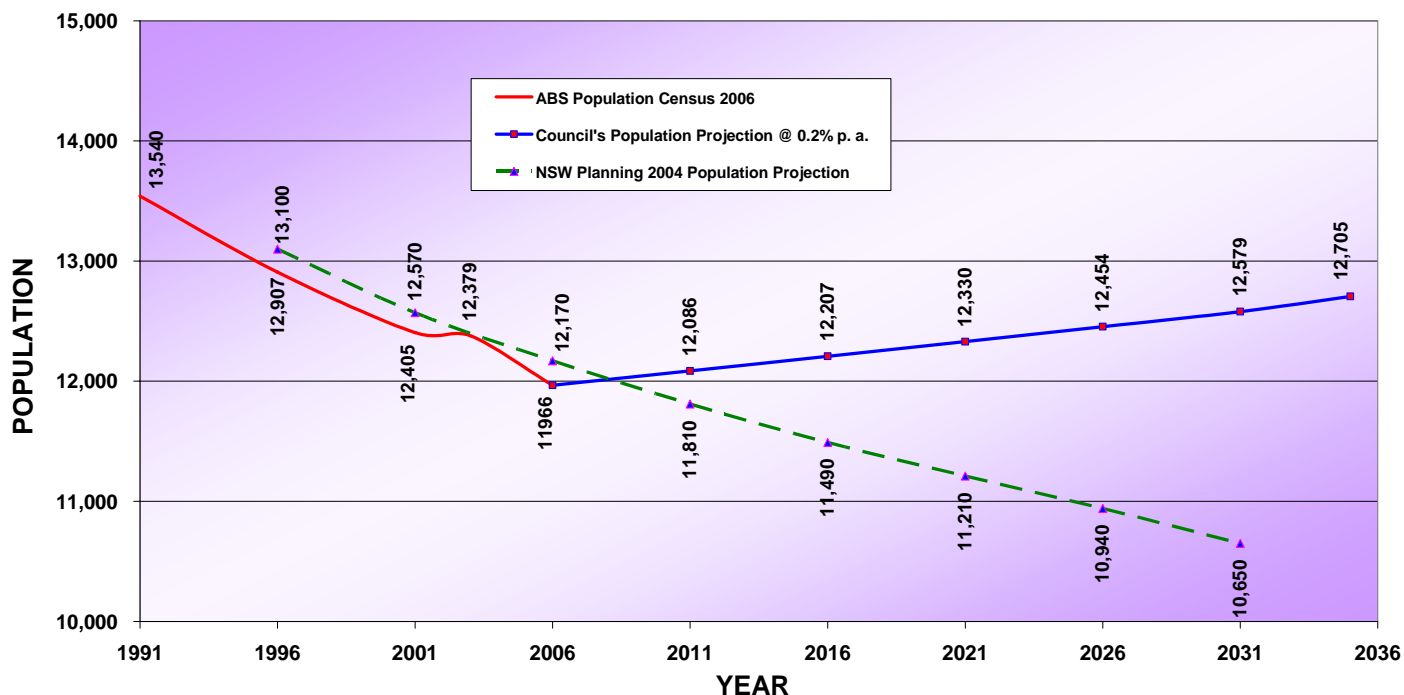
### Growth Projections

Gunnedah Shire Council has had a compounding population growth of – 0.8% p.a. during the 15-year period between 1991 and 2006 (*Based on ABS data – Regional Population Growth, Local Government Areas, NSW – 1991 – 2006, December 2007, Ref. 3218.0*).

The ABS Census data and the 2004 – NSW Planning forecasts are shown graphically in the Figure below.

Council already possesses water supply infrastructure capacity to service additional population. Since 2006 Census, Council has been experiencing higher population growth rate in the order of 1.2% p.a. due to new mining and mineral exploration activities. However, it is realistic about the prospect of sustaining this level of future growth for a long period. Hence, the Council has adopted a long term average growth of 0.2% p.a. for future planning process. 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 – Gunnedah Shire Council Population Growth Projections**



For water supply, the projected number of assessments for financial modelling purposes is based on the 4064 (Residential: 3705; Non-residential: 359) assessments in June 2009 in accordance with Council's records (*Reference: Tariff Consumption Report, Civica – Authority, June 2010*) 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 water supply capital works planned for Gunnedah Shire Council over the next 10 years. The justification for why they have been planned is also shown below

| Proposed Capital Work                                    | Year            | Justification                                    |
|--|-----------------|--|
| Apex Reservoir (4 ML) for emergency storage for Gunnedah | 2013/14         | Improved levels of service<br>Drought management |
| Service provision to industrial area developments        | 2014/15         | Growth related                                   |
| Curlewis water quality improvement                       | 2012/13         | Improved levels of service                       |
| Bore renewal program                                     | 2014/15 onwards | Asset renewal/ replacement                       |
| Ongoing water mains renewal program                      | Ongoing         | Renewal and replacement                          |
| Borthistle reservoir (4 ML)                              | 2018/19         | Growth and improved levels of service            |

## Stakeholders

Stakeholders are parties within Gunnedah Shire Council who have an interest in the water supply schemes and their operation. The expectations of the stakeholders have a significant impact on the development and operation of the schemes. Internal stakeholders include:

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

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



# Levels of Service

Details of current and target Levels of Service are provided in this section

The Levels of Service:

- define explicitly the standards required from the water supply system,
- are an expansion of the mission statement,
- will largely shape Council's detailed planning.

The Levels of Service define the deliverables and are the driving force for the water supply scheme's management and development. Achieving the target Levels of Service is the PRIMARY GOAL.

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

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

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

## Levels of Service – Water Supply

| DESCRIPTION   | UNIT                                  | LEVEL OF SERVICE               |                                 |
|---|---------------------------------------|--------------------------------|---------------------------------|
|   |                                       | Current                        | Target                          |
| <b>AVAILABILITY OF SERVICE</b>  |                                       |                                |                                 |
| <b>Normal Quantity Available:</b>   |                                       |                                |                                 |
| Domestic Peak day   | L/tenmnt./ day                        | 2,800                          | 2500                            |
| Domestic Annual Consumption   | Kl/tenmnt./ year                      | 395                            | < 350                           |
| Total Annual Consumption (10 year average for Gunnedah only)  | ML/year                               | 2,450                          | 2400                            |
| Total Peak Daily Consumption  | ML/day                                | 17                             | < 15                            |
| Peak Week to Average consumption (Gunnedah only)  | %                                     | 184                            | < 200                           |
| <b>Service Provision:</b>   |                                       |                                |                                 |
| Time to provide a domestic individual connection to water supply in serviced area (95% of times)  | Working days                          | 5                              | 5                               |
| <b>Fire Fighting:</b>   |                                       |                                |                                 |
| Compliance with the Water Supply Investigation Manual* (AS 2419.1 classifications 2,3,4.& 9 with floor area less than 1000 m <sup>2</sup> ) | % area urban served                   | 99% (Excluding Tambar Springs) | 100% (Excluding Tambar Springs) |
| <b>Pressure:</b>  |                                       |                                |                                 |
| - Min. pressure when delivering 0.1L/sec  | Metres                                | 20                             | 20                              |
| - Max. static pressure  | Metres                                | 80                             | 80                              |
| <b>Consumption Restrictions in Droughts:</b>  |                                       |                                |                                 |
| Level of water conservation (restriction) applied through a repeat of the worst drought on record   | Restriction as % of normal usage time | 100 (Permanent Level 1)        | 100 (Permanent Level 1)         |
| <b>SUPPLY INTERRUPTIONS TO CUSTOMERS</b>  |                                       |                                |                                 |
| <b>Planned (95% of time):</b>   |                                       |                                |                                 |
| - Notice given to domestic customers  | Days                                  | 1                              | 1                               |
| - Notice given to commercial customers  | Days                                  | 2                              | 2                               |
| - Notice given to industrial customers  | Days                                  | 7                              | 7                               |
| - Maximum duration  | Hours/event                           | 8                              | 8                               |
| - Frequency   | No./year per customer                 | 1                              | 1                               |

| DESCRIPTION   | UNIT                                | LEVEL OF SERVICE |                |
|---|-------------------------------------|------------------|----------------|
|   |                                     | Current          | Target         |
| <b>Unplanned<sup>@</sup>:</b>   |                                     |                  |                |
| - Water main breaks   | No./ year<br>(No./100 Km)           | 30<br>(20)       | < 20<br>(< 15) |
| - Average duration  | Hours/event                         | 4                | 4              |
| - Frequency   | No./ year per<br>1000<br>properties | 8                | < 6            |
| <b>Response Times for Service Interruptions</b><br>(Defined as time to have staff on-site to commence rectification after notification of problem)                                    |                                     |                  |                |
| <b>Priority 1:</b><br><br>(Failure to maintain continuity or quality of supply to a large number of customers or to a critical user at a critical time)<br><br>All Customers:         |                                     |                  |                |
| - During working hours  | Minutes                             | 30               | 30             |
| - Out of working hours  | Minutes                             | 60               | 60             |
| - Villages  | Minutes                             | 90               | 90             |
| <b>Priority 2:</b><br><br>(Failure to maintain continuity or quality of supply to a small number of customers or to a non-critical user at a non-critical time)<br><br>All Customers: |                                     |                  |                |
| - During working hours  | Minutes                             | 30               | 30             |
| - Out of working hours  | Minutes                             | 60               | 60             |
| - Villages  | Minutes                             | 90               | 90             |
| <b>Priority 3:</b><br><br>(Failure to maintain continuity or quality of supply to a single customer)<br><br>Gunnedah – All Customers:   |                                     |                  |                |
| - During working hours  | Minutes                             | 30               | 30             |
| - Out of working hours  | Minutes                             | 60               | 60             |
| Villages – All Customers:   |                                     |                  |                |
| - During working hours  | Minutes                             | 90               | 90             |
| - Out of working hours  |                                     | 120              | 120            |
| <b>CUSTOMER FEEDBACK/ COMPLAINTS<sup>@</sup></b>  |                                     |                  |                |
| Water quality complaints  | No./ 1000<br>connections            | 1                | < 0.2          |
| Service complaints  | No./ 1000<br>connections            | 2                | < 1            |

| DESCRIPTION  | UNIT                              | LEVEL OF SERVICE |                |
|--|-----------------------------------|------------------|----------------|
|  |                                   | Current          | Target         |
| Billing and account complaints   | No./ 1000 connections             | 2                | <1             |
| Other complaints   | No./ 1000 connections             | 1                | <1             |
| <b>Response Times for Feedback/ Complaints</b>                               |                                   |                  |                |
| Percentage of calls answered by the operator within 30 seconds <sup>@</sup>  | Seconds                           | 100              | 100            |
| General complaints and inquiries:  |                                   |                  |                |
| – Written complaints   | Working Days                      | 10               | 10             |
| – Personal/ oral complaints  | Working Days                      | 1                | 1              |
| <i>Note: Times apply for 95% of complaints</i>                               |                                   |                  |                |
| <b>ENVIRONMENT</b>   |                                   |                  |                |
| Net greenhouse gas emissions <sup>@</sup>                                    | Tonnes CO <sub>2</sub> eqv./ year | 1,070            | < 1000         |
| <b>WATER QUALITY (Potable Water)</b><br>(Should meet ADWG, NHMRC&AWRCM 2004) |                                   |                  |                |
| <b>Microbiological Parameters:</b>   |                                   |                  |                |
| Total coliforms  | CFU/100ml                         | 0                | 0.0000         |
| E-coliform   | CFU/100ml                         | 0                | 0.0000         |
| Sampling frequency   | Samples/month                     | 4                | 4              |
| <b>Physico-chemical Parameters:</b>  |                                   |                  |                |
| pH   | Unit                              | 7.0 – 8.0        | 6.5 – 8.5      |
| Colour   | HU                                | < 1              | <15            |
| Turbidity  | NTU                               | < 1              | < 5.0          |
| Free available chlorine (Reticulation)                                       | mg/L                              | 0.3              | 0.5 – 1.0      |
| Iron   | mg/L                              | 0.01             | < 0.3          |
| Manganese  | mg/L                              | 0.005            | < 0.1          |
| Sampling and analysis frequency  | No./year                          | G – 2<br>V – 1   | G – 2<br>V – 1 |
| <b>Percentage Compliance with ADWG 2004</b>                                  |                                   |                  |                |
| Zones achieving compliance with  | No. / Total No. of zones          |                  |                |
| – Physical parameters  |                                   | 4/4              | 4/4            |
| – Chemical parameters <sup>@</sup>   |                                   | 1/4              |                |
| – Microbiological parameters <sup>@</sup>                                    |                                   | 4/4              |                |

G – Gunnedah; V – Villages @ - NWI Performance Indicators

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 water supply schemes. Table below presents a list of major issues and where they have been addressed in this Strategic Business Plan.

| Issue  | Section where this is addressed  |
|--|--|
| Meeting adopted levels of service and compliance with NOW Best Practice Guidelines | Objective 1 – Levels of Service Review (Performance Management)                      |
| Security of Water Supply   | Objective 8 – Environment<br>Objective 11 – Capital Works                            |
| Water quality issues of village supplies   | Objective 9 – Operation<br>Objective 11 – Capital Works                              |
| Water allocation to accommodate growth   | Objective 3 – Water Conservation   |
| Increasing reservoir storage capacity  | Objective 4 – Drought Management<br>Objective 11 – Capital Works                     |
| Meeting customer service expectations and community consultations                  | Objective 5 – Customer Relations<br>Objective 6 – Community Involvement              |
| Managing and funding long-term capital works program                               | Objective 11 – Capital Works<br>Objective 13 – Finance                               |
| Systematic rehabilitation and renewal of ageing assets                             | Objective 10 – Maintenance<br>Objective 11 – Capital Works<br>Objective 13 – Finance |

Other pertinent issues related to water supply services include:

- Sustainability of growth in the Shire
- Future institutional changes such as amalgamations
- Price of water entitlements





# Best Practice Management

NSW Office of Water Best Practice Guidelines

The NSW Office of Water (NOW, previously Dept. 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 Gunnedah Shire Council's compliance status of the criteria is as follows:

| Issue  | Status  |
|--|---|
| Strategic Business Plan (including Financial Plan) | This document represents the update of Strategic Business Plan and Financial Plan prepared originally in 2004   |
| Water supply service pricing                       | Tariff structure fully complying with all outcome indicators of Best Practice Guidelines (with appropriate cost recovery, without significant cross subsidies, usage/access charges ratio) will be addressed for the water supply business by June 2010 |
| Developer Charges                                  | <i>Development Servicing Plan</i> with commercial developer charges has been implemented from 2004/05 onwards. Developer charges will be reviewed and adopted by June 2011.   |
| Water Conservation                                 | Sound demand management with full implementation of demand monitoring, leakage reduction and community education, together with all of the issues in the NOW <i>Demand Management Check List</i> will be addressed by June 2010.                        |
| Drought Management                                 | Sound drought management planning including data on the existing system, and all the issues in the NOW <i>Drought Management Checklist</i> is already in place.   |
| Annual Performance Reporting                       | <i>Performance Reporting Forms</i> were completed prior to 15 September 2009 and issues in the NOW <i>Performance Reporting Check List</i> have been addressed.   |
| Occupational Health and Safety*                    | Council will comply with the <i>OHS Act 2000</i> and <i>OHS Regulation 2001</i> , address the issues in the NOW <i>OHS Checklist</i> and issue a statement confirming compliance to NOW by December 2010.   |
| Asset Management*                                  | Existing 30-year <i>Capital Works Plan</i> , listing the proposed projects for each of backlog, growth and renewals; will be reviewed and updated by June 2010; an <i>Operation and Maintenance Plan</i> will be developed by June 2011                 |
| Integrated Water Cycle Management                  | Concept Plan for Integrated Water Cycle Management completed in 2006. IWCM strategy will be completed and all issues in the IWCM checklist will be addressed by September 2010.   |

\* - Not a requirement of NOW 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 water supply.

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

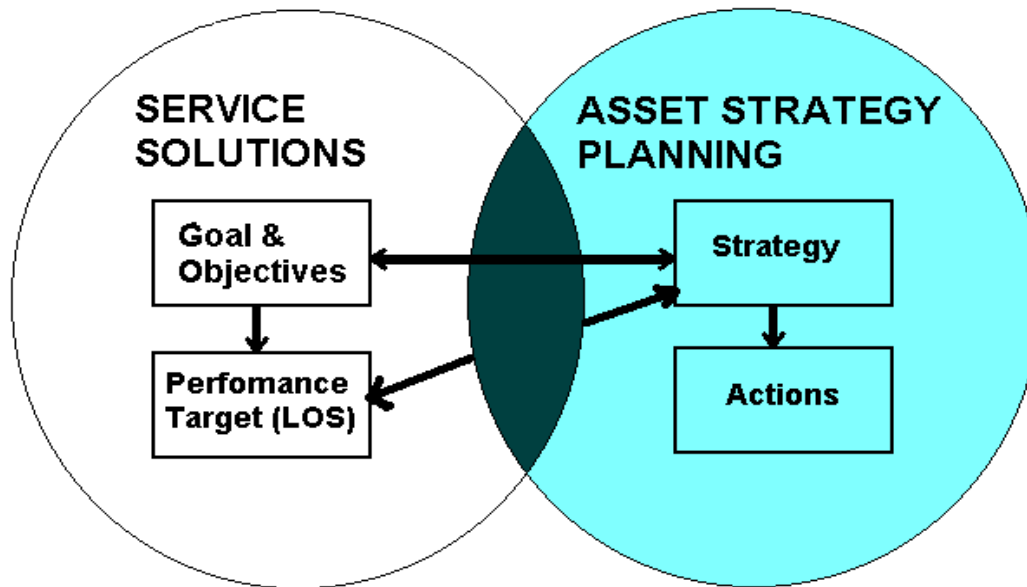
- ❑ Customer Service
- ❑ Environment
- ❑ Asset Management
- ❑ Human Resources
- ❑ Finance

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



# Planning Strategy

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



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

| 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<br>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 Performance Management           | Sustainability of water supply services   |
| Area Served                              | Availability of Service   |
| Pricing                                  | Availability – user pays<br>Service connection  |
| Water Conservation and Demand Management | Availability – Quantity   |
| Drought Management                       | Water Conservation  |
| Customer Relations                       | Availability – Water Wise<br>Water Conservation<br>Interruption advice<br>Complaints/Enquiries  |
| Community Consultation                   | Service pricing<br>Environment  |
| Environment                              | Mains flushing<br>Sludge disposal   |
| Operations                               | Water quality – compliance<br>Interruptions –scheduled<br>Service connection  |
| Maintenance                              | Water quality – compliance<br>Fire fighting – failures<br>Interruptions – planned and unplanned   |
| Capital Works                            | Water quality – compliance<br>Availability – capacity<br>Fire fighting – pressure<br>Delivery pressure<br>Interruptions – replacement program |
| Human Resources                          | Interruptions – staff on call<br>Response time  |
| 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.

|     |                                      |
|-----|--------------------------------------|
| AO  | Assets Officer                       |
| AWE | Assistant Water Engineer             |
| CSO | Client Services Officer              |
| DED | Director Environment and Development |
| DIS | Director Infrastructure Services     |
| GM  | General Manager                      |
| MCS | Manager Corporate Strategic Planning |
| MDP | Manager Development and Planning     |
| MF  | Manager Finance                      |
| MHR | Manager Human Resources              |
| SDE | Senior Design Engineer               |
| WSE | Water Services Engineer              |
| WSO | Water Services Overseer              |





# Customer Service



This section details Gunnedah Shire Council's objectives relating to customer service, including Levels of Service, customer relations, community involvement, pricing and demand 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 water supply service areas;
- Water Conservation;
- Drought management
- The pricing of services (including 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 water supply 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 NOW 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 Councils. Performance data is forwarded to NOW in September each year.

In accordance with the Inter Government Agreement on a National Water Initiative signed between the Commonwealth and the State Governments, NOW has introduced independent auditing of the performance data reported by all non-major water utilities (currently applicable only for utilities having more than 10,000 connections only and hence not applicable to Gunnedah Shire Council) for a comprehensive set of 65 performance indicators developed by the National Water Commission. The audit verifies the reliability and accuracy of the performance data reported by Water Utilities and enables meaningful state-wide and nation-wide comparison of key issues affecting water utilities and their customers. The performance audit needs to be undertaken at least once in three years.

A benchmarking exercise is then conducted to ensure Levels of Service are comparable to others in the industry at present. The outcome of the benchmarking exercise is provided as a feedback from NOW to the Councils as a 2-page TBL report. The TBL report should be reviewed and an action plan to address areas of under-performance prepared by the Council.

Generally Council has been performing well in respect of the Levels of Service. It is perceived that improvements could be made regarding the following:

- quality of water particularly in villages
- number of main breaks leading to service interruptions and hence complaints.

## Objective 1: Levels of Service Review

To provide water services which are economically feasible and financially affordable and meet current legislation and guidelines

### Performance Targets

Annual performance review of SBP objectives and actions

### Strategy

Implement current Strategic Business Plan (SBP)

| Objective 1: Actions   | Start           | End                | Responsible | Cost \$000                 |                  |
|--|-----------------|--------------------|-------------|----------------------------|------------------|
|  |                 |                    |             | Implement                  | Ongoing          |
| <b>Strategy 1</b>  |                 |                    |             |                            |                  |
| Review current operations for annual report  | Annually        |                    | GM          |                            | NAE              |
| Review LOS and update Strategic Business Plan  | 2010            | Ongoing            | WSE         |                            | 18 every 5 years |
| Public display of SBP and adoption by Council  | As required     |                    | WSE         |                            | NAE              |
| Implement and monitor SBP Action Plans   | Ongoing         |                    | DIS/ WSE    | As detailed in this report |                  |
| Best Practice Management Compliance Audit  | Nov 2011        | Dec 2010 (Ongoing) | DIS         | 3                          | 3                |
| Monitor and review LOS targets and report performance to NOW                               | Annually        |                    | WSE         |                            | NAE              |
| Report key performance indicators and TBL reports to Council                               | August Annually |                    | DIS/ WSE    |                            | NAE              |
| Publish LOS in Management Plan   | Annually        | Ongoing            | DIS/WSE     |                            | NAE              |
| Input and review of special schedules for Dept. of Local Govt. in the financial statements | Annually        |                    | WSE         |                            | NAE              |
| DEC/EPA compliance reporting for licence renewal   | March Annually  |                    | WSE         |                            | NAE              |
| SoE reporting  | Nov Annually    |                    | MDP/ WSE    |                            | 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 water supply services to new areas is dependent on a range of factors, the most important being:

- The growth in urban rural settlements
- New release areas
- The impact on levels of service to existing customers
- The environmental impact of the works
- Cost to customers associated with extending services

When extending services, Council will:

- 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
- Ensure water supply planning is integrated with overall Council planning to eliminate pressure from developers and avoid the under-utilisation of services
- Compete with neighbouring Councils in attracting commercial and industrial developments

The main issues considered are:

- Ensuring integration of water supply service planning with overall Council planning to eliminate pressure from developers and avoid the under-utilisation of services from assets that are already in place.
- Looking at opportunities for extension where service is viable. (There are 310 people in rural locations that do not have Council supplied potable water).
- Extending water supply services to the Northwest Park industrial area

Table below summarises the details of current and future (30-years) water supply service areas within the Council area. As indicated by the table, apart from extending services to new subdivisions and developments in the periphery of existing service areas and included in the designated service area Council is not planning to extend potable water supply services to the villages in the near future.

| Town/ Zone     | Current Service |                   | Future Service |                   |
|----------------|-----------------|-------------------|----------------|-------------------|
|                | Availability    | Population (2010) | Availability   | Population (2040) |
| Gunnedah       | Yes             | 8043              | Yes            | 9500              |
| Curlewis       | Yes             | 604               | Yes            | 650               |
| Mullaley       | Yes             | 100               | Yes            | 110               |
| Tambar Springs | Yes             | 100               | Yes            | 110               |
| Carroll        | No              | 150               | No             | 150               |
| Breeza         | No              | 50                | No             | 50                |
| Kelvin         | No              | 50                | No             | 50                |
| Emerald Hill   | No              | 50                | No             | 50                |

## Objective 2: Areas Serviced

Services provided within the designated service areas and extended outside this area at Council's discretion

### Performance Targets

Service area extended as required

### Strategies

Encourage ongoing infill urban development and extend services to new growth areas as required

| Objective 2: Actions  | Start | End  | Responsible | Cost \$000                              |         |
|---|-------|------|-------------|---|---------|
|   |       |      |             | Implement                               | Ongoing |
| <b>Strategy 1</b>   |       |      |             |   |         |
| Completion of ring main for North West Part Industrial Area | 2014  | 2015 | WSE         | Refer to Capital Works Plan in Part – C |         |
| Apex Reservoir 4 ML (emergency storage)                     | 2013  | 2014 | WSE         |   |         |
| Borthistle Reservoir 4 ML                                   | 2018  | 2019 | WSE         |   |         |

## Water Conservation

This section of the Plan outlines Council's intention in the management of water demands. Water conservation falls partly in the Customer Service Plan and partly in the Asset Management Plan.

Water conservation is aimed at reducing the water consumption, through elimination of waste and improved efficiency. It is not Council's intention that customers ration their water use as Council's policy to provide unlimited supplies of water still stands. Rather, Council aims to educate customers to use water wisely and take necessary steps to avoid wasteful practices.

Conserving water through demand management has the potential to:

- Reduce the operating costs of the system; and
- Defer the need to augment the system and to develop new water sources.

In addition to saving money and reducing the charges to customers, water conservation provides environmental benefits by efficient use of valuable water resource.

Council plans to undertake water conservation initiatives with a dual objective of meeting current and future demand through planning, and influencing customer usage through education and information.

Council has already developed and adopted a Demand Management Plan in November 2006 that addresses the following main aspects of water conservation:

- Limited water sources and the time factor associated with developing new water sources. Whilst there is no mandatory restriction on supply under normal conditions, Council intends to promote water conservation, as the resource is finite
- There is currently unaccounted for water and leakage in the supply system Reduction of system leakage through systematic leakage detection and repair is a priority
- Targeting high water users in both commercial and domestic sectors to encourage use of water-efficient appliances
- Communication with and education of customers There is a need to increase community knowledge (School education programs). See Customer Relations objective for more details in this regard.
- Reuse of treated effluent and storm water for irrigation
- Water restrictions at times of severe drought

Council is a party to the "Save Water Alliance" and actively promotes the water conservation initiatives of this alliance.

Council plans to undertake a Water Loss Management Study in 2010 through a DLG funded program. The study will estimate potential water savings through implementation of water leakage and pressure management strategies.

### Objective 3: Water Conservation

Encourage wise use of water

#### Performance Targets

Complete water loss management program by June 2011

Promote Save Water Alliance initiatives

Maintain water consumption at 280 KL/tenement

#### Strategies

Improve community awareness

Implement Demand Management Plan

| Objective 3: Action  | Start     | End          | Responsible | Cost \$000                              |         |
|--|-----------|--------------|-------------|---|---------|
|  |           |              |             | Implement                               | Ongoing |
| <b>Strategy 1</b>  |           |              |             |   |         |
| Continue community education through Waterwise campaign<br>– Information sheet with rates notice<br>– Newspaper articles/ ads<br>– Schools program |           | Ongoing      | WSE         |   | NAE     |
| Promote Save Water Alliance initiatives  |           | Ongoing      | WSE         |   | 10      |
| <b>Strategy 2</b>  |           |              |             |   |         |
| Carry out leakage investigation study/ water loss management   | July 2011 | Ongoing 2012 | WSE         | 25                                      | 5       |
| Update and implement demand management initiatives following completion of IWCM studies  | July 2010 | Ongoing      | WSE         |   | 10      |
| Subsidy for water saving appliances retrofit   | July 2011 | Ongoing      | WSE         |   | 10      |
| Mains replacement campaigns to reduce main breaks  | Started   | Ongoing      | WSE         | Refer to Capital Works Plan in Part – C |         |



## Drought Management

Drought management aims to ensure that town water supplies with significant storage do not fail in times of drought.

Issues that need to be addressed in Drought Management Plan include:

- Documenting basic data on:
  - communities served/ not served by reticulated water supply
  - water demands,
  - records of average rainfall
  - evaporation rates
  - records of past droughts,
  - the existing water supply system and its water sources,
  - historical performance of rivers, dams, weirs and bores in previous droughts.
- Strategies to achieve the objective of having sufficient water to satisfy the basic needs of the community.
- Consultation with stakeholders including government agencies
- Agreed procedure for progressive implementation of water restrictions
- Human resource requirements

Council has made extensive use of water restrictions which have had success in holding down demand during the recent drought and has adopted permanent Level 1 water restrictions.

Council has prepared and adopted a Drought Management Plan in December 2006.

## Objective 4 Drought Management

Ensure town water supplies do not fail in times of drought

### Performance Targets

Implement Drought Management Plan recommendations as required

### Strategies

Drought-proof Gunnedah town and villages

| Objective 4: Actions   | Start             | End     | Responsible | Cost \$000                           |         |
|--|-------------------|---------|-------------|--------------------------------------|---------|
|  |                   |         |             | Implement                            | Ongoing |
| <b>Strategy 1</b>  |                   |         |             |                                      |         |
| Implement identified water security options <ul style="list-style-type: none"> <li>- Additional storages</li> <li>- Increasing raw water delivery</li> <li>- Water carting through private operators for villages</li> <li>- Operation of bores</li> </ul> | As required       |         | WSE         | Refer to Part C – Capital Works Plan |         |
| Implement Drought Management Plan for Gunnedah and villages including <ul style="list-style-type: none"> <li>- levels of intervention (trigger points)</li> <li>- means and methods for enforcing restrictions</li> </ul>                                  | July 2009 onwards | Ongoing | WSE         |                                      | NAE     |
| Implementation of agreed procedures of water restrictions in times of drought  | As required       |         | WSE         |                                      | NAE     |

## Service Pricing

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

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

**Equity** – adoption of user pays principles. Residential and non-residential revenue to be collected via a two-part tariff which reflects the level of water used. (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.

### Tariff structure

Council has already adopted a two-part water tariff structure comprising an access charge and a usage charge in accordance with the NOW Best Practice Guidelines.

As part of the Financial Plan, financial models using NOW's FINMOD software have been developed to generate long-term forecasts of the level of total income to meet the costs of scheme operation, maintenance and asset development, renewal and replacement.

Annual water supply charges are structured to match the long-term price path suggested by a 30-year Financial Plan reflecting a 'user pays' approach.

Council plans to undertake a comprehensive review of the existing inclining block water supply tariff structure for residential and non-residential customers to ensure compliance with the NOW guidelines by July 2011. Also, Council plans to reduce annual water charges by way of review and rationalisation of developer contributions (Section 64 charges).

The best practice tariff structure provides revenue stability and sustainability for the water supply services and sends signals to customers to conserve water as a resource. This applies to both residential and non-residential customers.

Water tariff structure for Gunnedah and villages for 2009-10 is summarised in the Table next page.

| Charge Type                         | Town/ Village |          |          |                |
|-------------------------------------|---------------|----------|----------|----------------|
|                                     | Gunnedah      | Curlewis | Mullaley | Tambar Springs |
| <b>Access Charge (\$):</b>          |               |          |          |                |
| - Vacant land                       | 173.00        | 182.50   | 297.50   | 344.00         |
| - 20mm to 40 mm                     | 173.00        | 182.50   | 297.50   | 344.00         |
| - 50mm                              | 387.00        | 419.50   | 559.00   | 500.00         |
| - 80mm                              | 623.50        | 645.00   | 785.00   | 832.00         |
| - 100mm                             | 1,311.50      | 1,333.00 | 1,473.00 | 1,521.00       |
| - 150mm:                            | 2,795.00      | 2,795.00 | 2,956.00 | 3,000.00       |
| <b>Usage Charge (\$/KI):</b>        |               |          |          |                |
| For all customers                   |               |          |          |                |
| - For consumption up to 400 KI/year | 0.80          | 0.90     | 1.35     | 2.20           |
| - For consumption above 400 KI/year | 1.30          | 1.30     | 1.75     | 2.50           |

### 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 has adopted commercial developer charges to be charged under Section 64 of Local Government Act, 1993 from 2005 onwards.

Current (2009/10) developer charge for water supply is \$4,275 per ET.

Council plans to complete the 5-yearly review of developer charges by September 2010 for implementation from July 2011 onwards.

## Objective 5: Service Pricing

An equitable pricing policy which provides for current and future service provision and encourages wise resource use

### Performance Target

Achieve 75% residential revenue from usage charges from 2011/12 onwards

Review and update development servicing plan by September 2010

### Strategies

Maintain "Best Practice" pricing in accordance with NOW guidelines

| Objective 5: Actions   | Start        | End                   | Responsible  | Cost \$000                                   |         |
|--|--------------|-----------------------|--------------|--|---------|
|  |              |                       |              | Implement                                    | Ongoing |
| <b>Strategy 1</b>  |              |                       |              |  |         |
| Review and adjust water tariff structure for CPI                     | January 2011 | March 2011 (annually) | MF/ DIS/ WSE |  | NAE     |
| Update water tariff structure, if required                           |              | 5 yearly              | MF/ DIS/ WSE |  | NAE     |
| Review and update Sec.64 developer charge calculations               | Started      | Sept. 2010            | WSE          | 10   |         |
| Consultation process for DSP if required                             | October 2010 | December 2010         | WSE          | Refer to Objective 6 – Community Involvement |         |
| Council to adopt new policies and publish in 2011-12 Management Plan | April 2011   | June 2011             | GM           | NAE  |         |

## Customer Relations

This section of the Plan outlines Council's intentions in customer relations to ensure its customers are satisfied with the water supply 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:

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

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

The Council should record problems and complaints and analyse them to identify where conditions are deteriorating. Actions should then be seen to be taken to improve these situations.

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 requests and complaints register does exist that classify and record requests and complaints. This allows for any continuing problem to be identified.

Council promotes a customer focussed, socially responsive communications culture for service provision issues. Council has identified the following areas of improvement in water supply services in regard to customer relations:

- Surveying for feedback on current levels of service
- Staff training on customer relations procedures as part of Council-wide initiative

## Objective 6: Customer Relations

Community to be aware of systems and have a sense of ownership and respect for the systems

### Performance Targets

Conduct community surveys as part of general Council survey every 5 years

Achieve 90% satisfaction level from on-going customer complaints resolution survey

### Strategies

Ensure high staff and community awareness

| Objective 6: Actions   | Start        | End               | Responsible   | Cost \$000                                |         |
|--|--------------|-------------------|---------------|---|---------|
|  |              |                   |               | Implement                                 | Ongoing |
| <b>Strategy 1</b>  |              |                   |               |   |         |
| Develop typical encounter guide notes  | July 2010    | June 2011         | MHR           | NAE                                       |         |
| Refresher training course on dealing with customers – all Water and Sewerage staff | August 2010  | Ongoing as needed | MHR           |   | 4       |
| Participate in Council's community consultation survey                             | October 2010 | Every 5 years     | AWE/ MCS/ DCS |   | NAE     |
| Participate in council media initiatives   | As required  | Ongoing           | WSE           |   | NAE     |
| Water and Sewerage information sheet circulated with rates notices                 |              | Ongoing           | WSE           |   | NAE     |
| Education program<br>– Schools<br>– Community organizations                        |              | Ongoing           | WSE           | Refer to Objective 3 – Water Conservation |         |

## 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 the proper evaluation of all the issues.

Development and review of the Local Environmental Plan, new water supplies and reservoirs, revision of tariff structure and developer charges, water recycle and reuse strategies 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 consultation processes. Methods used by Council to consult the community in the past include:

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

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 and costly process. Project lead times and budgets need to be programmed to take account of this.



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

Proposed water supply works that would benefit from community consultation include:

- Revision of Sec.64 developer charges
- Upgrade of water supply services to villages

Council intends to maintain the existing methods of consultation for all major capital works or decisions.

## Objective 7: Community Involvement

Consult community on major decisions as required

### Performance Targets

Consult community on options for Curlewis water quality improvements by June 2011

Consult community on adoption of new development servicing plans

### Strategy

Consult community on agreed project list

| Objective 7: Actions   | Start       | End      | Responsible | Cost \$000 |         |
|--|-------------|----------|-------------|------------|---------|
|  |             |          |             | Implement  | Ongoing |
| <b>Strategy 1</b>  |             |          |             |            |         |
| Adopt corporate consultation procedures                            | August 2010 | Ongoing  | MCS/ WSE    |            | NAE     |
| Recommend candidate projects for community consultation to Council | As required | Annually | DIS/ WSE    |            | NAE     |
| Obtain Council agreement on annual consultation program,           | As required | Annually | WSE         |            | NAE     |
| Carry out community consultation:                                  | As required |          | DIS/ WSE    |            |         |
| - Curlewis water quality improvement options                       |             |          |             | NAE        |         |
| - Revised Sec.64 developer charges                                 |             |          |             | 2          |         |



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

The Environment objective addresses Council's intentions in managing the water supply 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 and expand its environmental management plan. As part of its development, the following will need to be considered:

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

Council's Commitments to Built and Natural Environment Planning:

|  |  |
|--|--|
| <i>Commitment to Natural Environment :</i> | <i>In carrying out its functions, Council will properly manage, develop, protect, restore, enhance and conserve the environment of the Shire in a manner that is consistent with the principles of ecologically sustainable development.</i>                             |
| <i>Commitment: to build environment</i>    | <i>Council will embrace the principles of ecologically sustainable development through the creation, implementation, monitoring and ongoing refinement of planning documents and via the improved integration of operational areas through a more holistic approach.</i> |

The current water supply schemes based on groundwater sources have minimal impact on the surrounding environment. Council is committed to improve the practices to ensure further reduction of environmental impacts.

Following are the main issues that need to be addressed:

- Impact of ongoing mine and mineral exploration activities on ground water yield and quality
- Education regarding maintenance of rainwater tanks
- Integrated water cycle management

## 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 phase of the strategy is the IWCM Evaluation. This defines the catchment, water resource and urban water issues faced by Council. Once the issues are broadly defined, the second phase namely the IWCM Strategy studies are undertaken to better define issues and look at cost-effective ways of managing them. Such a strategy involves integrating planning and management of all components of the Council's use of the water cycle so that water is used optimally.

Unless the IWCM Evaluation demonstrates that preparation of an IWCM Strategy is not warranted, both the phases of IWCM are to be completed and implemented by the Council.

Council has completed an IWCM Concept Plan in 2006 and currently preparing an IWCM Strategy Plan in accordance with NOW Best Practice Guidelines for implementation from July 2010 onwards.

## Objective 8: Environment

Manage the water supply system to prevent adverse environmental impact and make optimal use of resources

### Performance Targets

Ongoing monitoring of aquifer areas to ensure sustainability

### Strategies

Practice due diligence and minimise environmental impacts

| Objective 8: Actions  | Start     | End       | Responsible | Cost \$000 |         |
|---|-----------|-----------|-------------|------------|---------|
|   |           |           |             | Implement  | Ongoing |
| <b>Strategy 1</b>   |           |           |             |            |         |
| Complete IWCM Strategy  | Started   | June 2010 | WSE         | 30         |         |
| NOW and in-house monitoring of aquifer water levels   |           | Ongoing   | WSE         |            | NAE     |
| Aquifer monitoring  |           |           | DIS/ WSE    |            |         |
| – Register Council as ‘interested party/ stakeholder’ with relevant authorities in all exploration and mining activities potentially affecting Shire water supplies |           | July 2010 |             | NAE        |         |
| – Obtain legal advice   |           | July 2010 |             | 20         |         |
| – Preliminary Hydro-geological study of aquifers  | July 2010 | Dec 2010  |             | 60         |         |
| – Bore water quality monitoring   |           | Ongoing   |             |            | 10      |



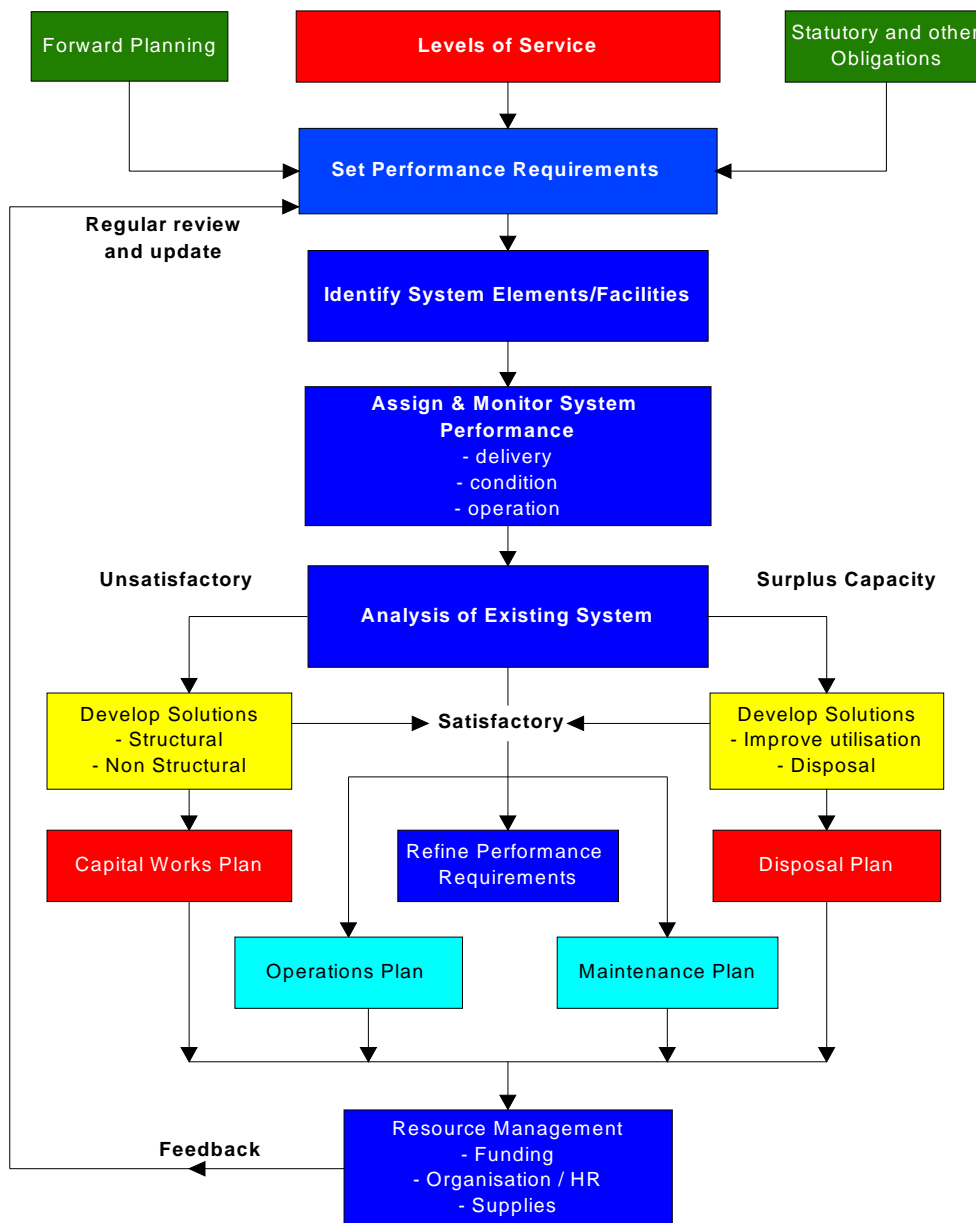
# Asset Management



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

This section contains information that Council will use in managing its water supply assets throughout their whole life cycle. This includes asset creation, operation, maintenance, replacement and disposal.

**Figure 7 – Best Practice Asset Management Approach**



This section of 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 structural and non-structural 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. The pending implementation of an asset management system will provide a vital repository for Council's asset related information such as: asset location, aerial photographs, financial and asset costs, construction and acquisition details and other asset attributes such dimensions. Key functions of the system include:

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

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. Both current and projected capital works to satisfy future demands in terms of growth, improved Levels of Service and replacement of existing assets are identified. Appropriate operation and maintenance activities also are identified, to suit the desired level of service delivery. This includes documentation of the rules and procedures at system and facility level. All these details are used in the financial plan to ensure that required funds are available when needed.



## Asset Values

The following Table shows a break-up of values of water supply assets of the Gunnedah Shire Council as at June 2009.

| Asset                                      | No./ Length/<br>Capacity | Current<br>Replacement<br>Cost (MEERA)<br>(\$'000) | Annual<br>Depreciation<br>(\$'000) | Written Down<br>Current Value<br>(\$'000) |
|--|--------------------------|--|------------------------------------|---|
| <b>Bores</b>                               |                          |  |                                    |   |
| - Curlewis                                 | 2 Nos.                   | 271  | 5                                  | 97  |
| - Gunnedah                                 | 11 Nos.                  | 2,060  | 65                                 | 1,043                                     |
| - Mullaley                                 | 2 Nos.                   | 241  | 2                                  | 34  |
| - Tambar Springs                           | 2 Nos.                   | 241  | 6                                  | 112                                       |
| <b>Water Mains</b>                         |                          |  |                                    |   |
| - Curlewis                                 | 20.0 Km                  | 3,409  | 42                                 | 2,489                                     |
| - Gunnedah                                 | 162.0 Km                 | 34,444   | 433                                | 23,498                                    |
| - Mullaley                                 | 3.9 Km                   | 481  | 6                                  | 303                                       |
| - Tambar Springs                           | 11.5 Km                  | 1,168  | 15                                 | 928                                       |
| <b>Reservoirs</b>                          |                          |  |                                    |   |
| - Curlewis                                 | 1 Nos.                   | 6,047  | 77                                 | 2,819                                     |
| - Gunnedah                                 | 5 Nos.                   |  |                                    |   |
| - Mullaley                                 | 1 No.                    |  |                                    |   |
| - Tambar Springs                           | 3 Nos.                   |  |                                    |   |
| Transfer pump stations<br>(Gunnedah)       | 3 stations               | 440  | 9                                  | 354                                       |
| <b>Chlorination plants</b>                 |                          |  |                                    |   |
| - Curlewis                                 | 1 No.                    |  |                                    |   |
| - Gunnedah                                 | 3 No.                    |  |                                    |   |
| - Mullaley                                 | 1 No.                    |  |                                    |   |
| - Tambar Springs                           | 1 No.                    |  |                                    |   |
| Others (Valves, Plant and equipment, etc.) | -                        | 3,020  | 45                                 | 1,413                                     |
| <b>TOTAL</b>                               |                          | <b>51,822</b>                                      | <b>705</b>                         | <b>33,090</b>                             |

## Operations Plan

**Figure 8 – Operations Flowchart**

This section of the Plan outlines Council's strategy for operation of the water supply 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 water supply 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

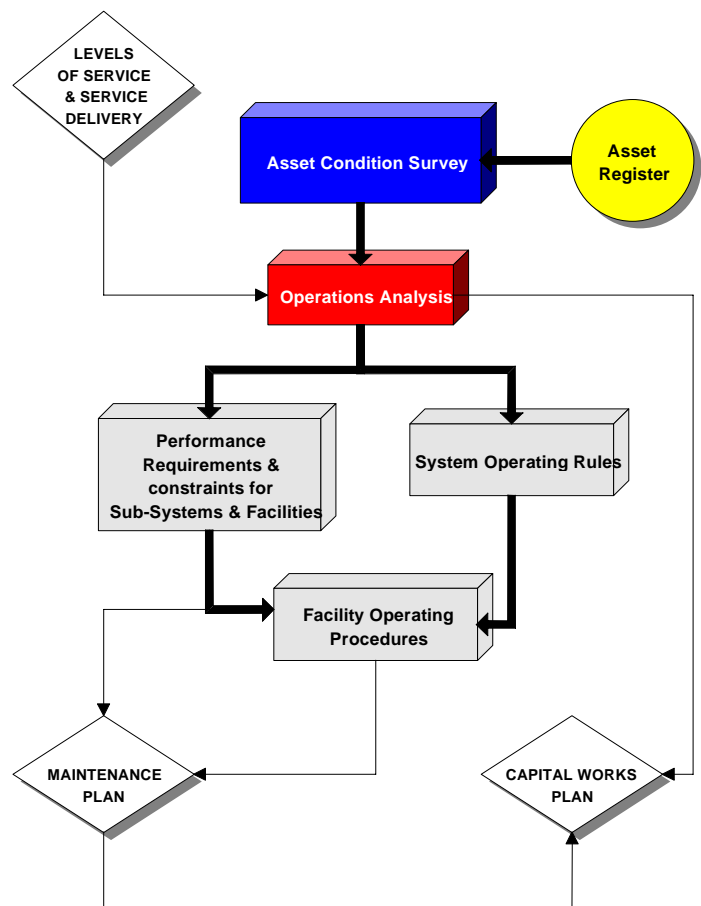
Levels of Service. Contingency plans (emergency response plans) should be developed where the impact of failure is significant. The existing inspection and maintenance procedures are appropriate, however the utilisation of improved technology need to be investigated.

Asset condition surveys include inspection for main breaks in the water supply system. The Asset Register should be updated as an integral part of this recording process.

There are various documentation requirements for water supply 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/ SCADA system leads to best operating efficiency and improves resource utilisation. Further operations planning requirements for the Council are:

- Completion of documenting system operating rules and performance requirements for all subsystems and facilities;
- Managing power failures/ blackouts disrupting services; and
- Compliance with OHS requirements



Existing operational systems, processes and procedures routinely deliver water services that comply with levels of service and regulatory requirements.

Rapid changes in the operating environment in terms of customer expectations, improved environmental outcomes, resource conservation, higher regulatory standards etc will require a commensurate improvement in operations.

The age of the water infrastructure is comparatively old and Council has already embarked on a renewal program to gradually replace the aging assets. In addition, programs such as water main cleaning will need to expand and be rigorously sustained to meet water quality objectives.

The expansion of some programs will require resources and it is possible that current activities such as grounds maintenance and water meter reading could be outsourced to release resources.

Main operational issues include the following:

- Asset condition audit and monitoring program
- Monitoring of operational performance
- Review and document operating procedures
- Implementation of mains cleaning program to maintain water quality
- Implementing recommendations of Safety Audit and complying with OHS regulations

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

- Bacterial contamination
- Falling into storages/ reservoirs
- 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.

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Following table summarises Council's OH&S performance during last 3 years.

| OHS performance indicator          | 2007/08 | 2008/09 | 2009/10 |
|------------------------------------|---------|---------|---------|
| Lost time due to injury (Hrs)      | 0       | 0       | 16      |
| No. of workers compensation claims | 0       | 0       | 1       |

## Objective 9: Operations

To operate water supply schemes in a manner which meets levels of service in the most efficient way

### Performance Targets

Meet agreed levels of service and control operating costs

### Strategies

Regularly update and implement operations plan

| Objective 9: Actions  | Start     | End              | Responsible  | Cost \$000                                |              |
|---|-----------|------------------|--------------|---|--------------|
|   |           |                  |              | Implement                                 | Ongoing      |
| <b>Strategy 1</b>   |           |                  |              |   |              |
| Maintain asset management system<br>– Updating asset register<br>– Asset valuation (Fair Value)<br>– Asset condition monitoring |           | Ongoing          | AO/ WSE      |   | NAE          |
| Benchmarking and operational Review   |           | Ongoing          | WSE          |   | NAE          |
| Update and maintain Water System Model (H <sub>2</sub> O map) for Gunnedah  | July 2011 | Ongoing          | WSE/ SDE     | 25 every 5 years                          | 5 every year |
| Energy audit  |           | Ongoing          | CSO          |   | NAE          |
| Documentation of operating rules & procedures   | Started   | June 2010        | WSE/ WSO     | NAE                                       |              |
| Bore condition analysis   | 2010      | 3 bores annually | WSO/ AO/ WSE |   | 15           |
| Reservoir condition analysis  | 2010      | Ongoing 3 yearly | WSO/ AO/ WSE |   | 30           |
| Main breaks data analysis   | July 2011 | Ongoing          | WSO/ AO      | Included in Objective 12: Human Resources |              |
| Water quality monitoring and reporting  | July 2010 | Ongoing          | WSO/ WSE     |   | 35           |
| Analysis of telemetry data  |           | Ongoing          | WSO/ WSE     |   | NAE          |

## Maintenance Plan

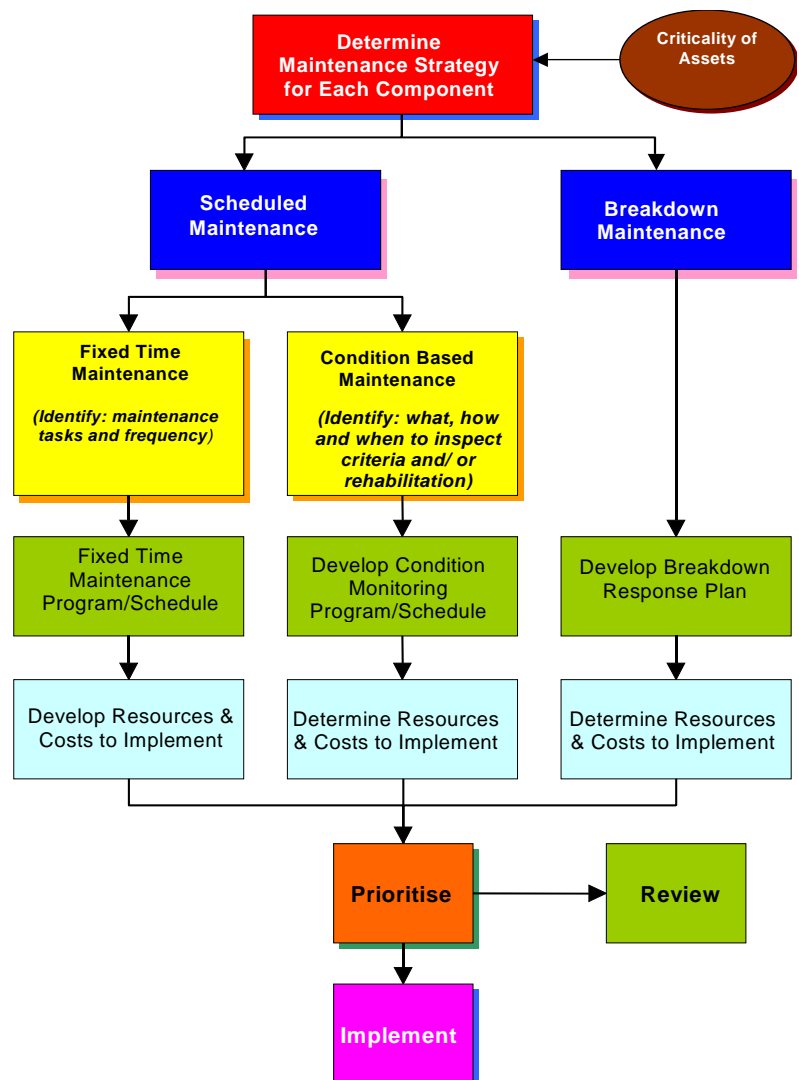
The Maintenance Plan is to ensure that the Operations Plan's outputs, reliability and availability of the sub-systems, facilities and components are achieved in the most cost effective manner. The most important factor is identification of the risk to system performance from failure of each asset. This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

**Figure 9 – Maintenance Flowchart**



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.

The Maintenance Plan has to consider the following information and issues on the existing system:

- Need to review and update the Operation and Maintenance (O&M) manuals and the O&M plan;
- Criticality analysis of systems to identify components of high risk
- Need for refresher training of key staff dealing with mission critical functions
- Maintenance of water quality through the implementation of a mains cleaning program including swabbing, flushing and reservoir cleaning.
- No formal condition monitoring program exists for assets. Maintenance has largely been on a fail and fix regime with no computer based maintenance management system. Asset audits – power, fire, M&E, spares, general condition audits etc are necessary

## Objective 10: Maintenance

Maximise overall system reliability at minimum cost to meet design levels of service

### Performance Targets

Prepare a Maintenance Plan by June 2011

### Strategies

Develop and implement a Maintenance Plan

| Objective 10: Actions   | Start     | End       | Responsible | Cost \$000 |         |
|---|-----------|-----------|-------------|------------|---------|
|   |           |           |             | Implement  | Ongoing |
| <b>Strategy 1</b>   |           |           |             |            |         |
| Pump and motor preventative maintenance program   |           | Ongoing   | WSO         |            | NAE     |
| Maintenance of bores, mains, services, switchboards, pump stations and telemetry  |           | Ongoing   | AWE/ WSO    |            | NAE     |
| Prepare a Maintenance Plan <ul style="list-style-type: none"> <li>- Procedures and schedules</li> <li>- Contingency plans</li> <li>- Emergency response plans</li> </ul>  | July 2010 | June 2011 | AWE/ WSE    | NAE        |         |
| Implement Maintenance Plan <ul style="list-style-type: none"> <li>- Predictive maintenance for critical assets</li> <li>- Scheduled maintenance for less critical assets</li> <li>- Breakdown maintenance strategy</li> </ul> | July 2011 | Ongoing   | AWE/ WSE    |            | NAE     |
| Review and update maintenance strategy <ul style="list-style-type: none"> <li>- Risk assessment</li> <li>- Asset criticality assessment</li> <li>- Economic analysis</li> </ul>   |           | Ongoing   | AWE/ WSE    |            | NAE     |



## Capital Works

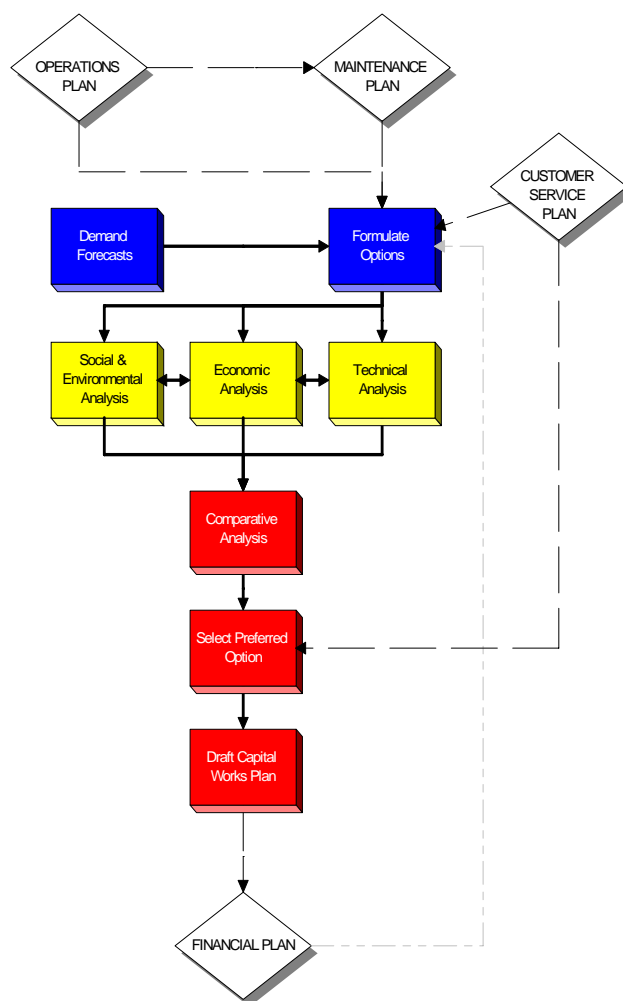
The capital works plan should make an assessment of scheduled work for growth, non-growth, and rehabilitation works over a 30-year period.

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

**Figure 10 – Capital Works Flowchart**



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

On the forward budget for the water supply scheme the following major capital works have been included:

- Apex Reservoir (4 ML) for emergency storage
- Service extension to industrial area developments
- Curlewis water quality improvement
- Bore renewal program
- Ongoing water mains renewal program
- Borthistle reservoir (4 ML)

## Objective 11: Capital Works

Capital works program provides facilities to deliver quality, capacity and reliability to meet service delivery objectives

### Performance Targets

Carry out capital works program on time and within budget

### Strategy

Plan and implement a long-term capital works program

| Objective 11: Actions   | Start                      | End       | Responsible | Cost \$000   |         |
|---|----------------------------|-----------|-------------|--|---------|
|   |                            |           |             | Implement  | Ongoing |
| <b>Strategy 1</b>   |                            |           |             |  |         |
| Develop a long-term (30-years) capital works plan<br><ul style="list-style-type: none"> <li>- For improved levels of service</li> <li>- For growth</li> <li>- For renewal/ replacement</li> </ul> | Started                    | June 2010 | WSE/ DIS    | Refer to Capital Works Plan in Part C – Detailed Information |         |
| Implement capital works plan  | As identified in this Plan |           | WSE/ DIS    |  |         |

# Human Resources



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

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

At Gunnedah Shire Council, the General Manager delegates authority to the Director Infrastructure Services (DIS) to manage all the water supply and sewerage services. The DIS in turn has entrusted the responsibility of the schemes' operation, maintenance and performance with Water Services Engineer (WSE).

Gunnedah Shire Council's water and sewer section has a total of 17 staff, who together operate and maintain the water supply and sewerage schemes. The staff also take-up private works as part of their Council duties which is a revenue generating activity.

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 in water and sewerage services).
- Succession planning for senior technical staff

Council has prepared the recommended training programs for the Water Services staff as shown below:

| Staff Name        | Recommended Training from HR   |
|-------------------|--|
| Campbell, Jack    | Traffic Control, First Aid, Chemical Awareness, Laboratory Testing, Confined Spaces Refresh, Waste Water Operator Refresh in Plant Operation, Computer for Starters, |
| Clifford, Wade    | Confined Spaces Refresher, MR Licence, Pump Training   |
| Condran, Leonard  | Civica, Confined Spaces Refresher, Computers, First Aid  |
| Ellis, Greg       | Confined Spaces Refresher, Backhoe, HR Licence, Traffic Control  |
| Hickman, Paul     | Skidsteer, HR truck licence  |
| Howarth, Lucy     | Civica, Confined Spaces Refresher, BFP Backflow Course, MR Truck Licence   |
| Kleinschafer, Ben | Confined Spaces Refresher, Backhoe, HR Licence   |
| Ryan, Steve       | Confined Spaces Refresher, Forklift, Traffic Control   |
| Streater, Wayne   | Confined Spaces Refresher, First Aid, Waste Water Operators Refresher  |
| Turner, Richard   | Confined Spaces Refresher, First Aid   |
| Varcoe Wade       | Confined Spaces Training, HR Licence   |
| Barr, Doug        | Confined Spaces Training, , MR Licence, Traffic Control  |

The organisational structure of the Council and that of the Water Services Section are shown in the following pages.

Figure 11 – Gunnedah Shire Council's Organisational Structure

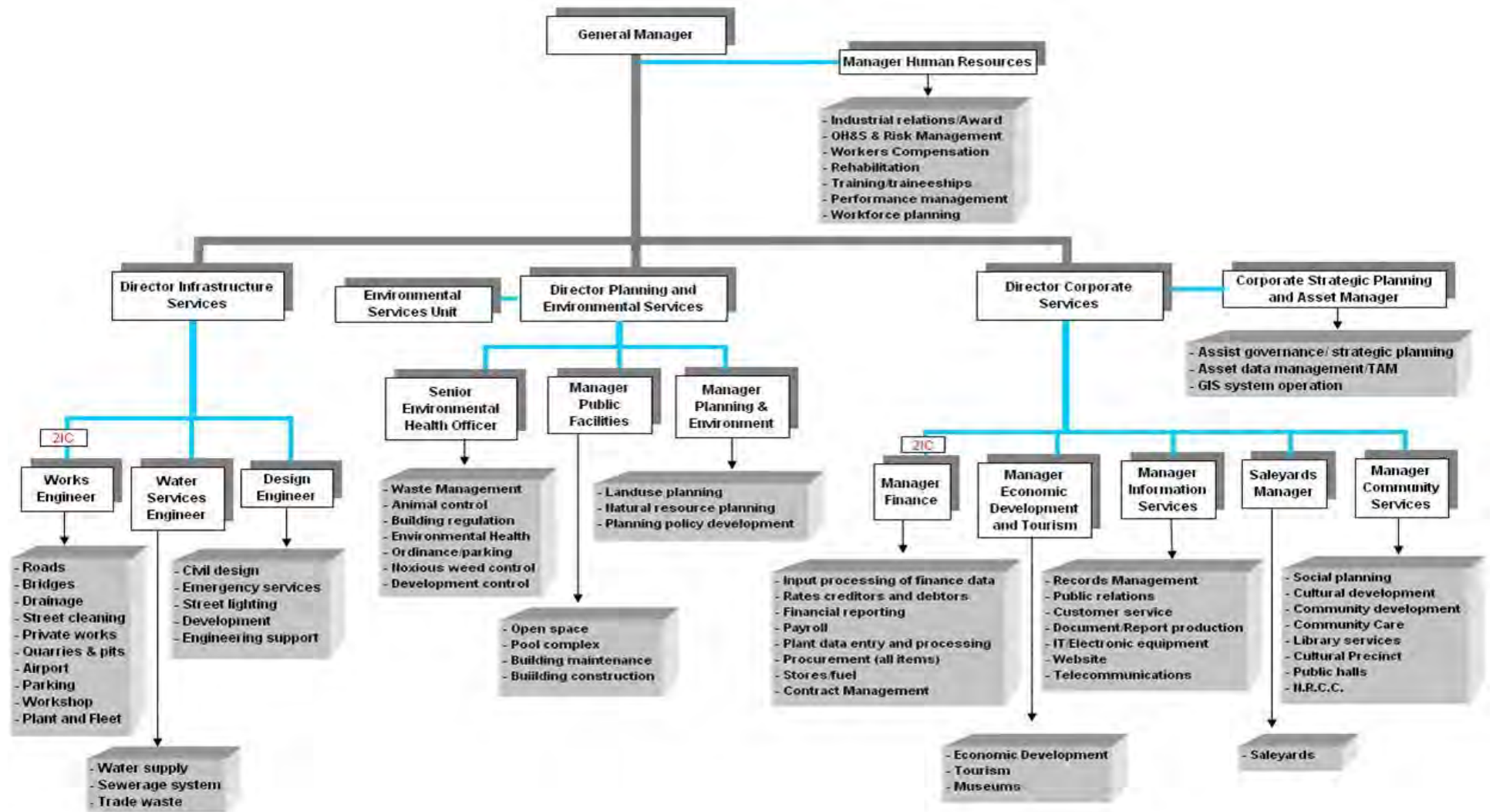
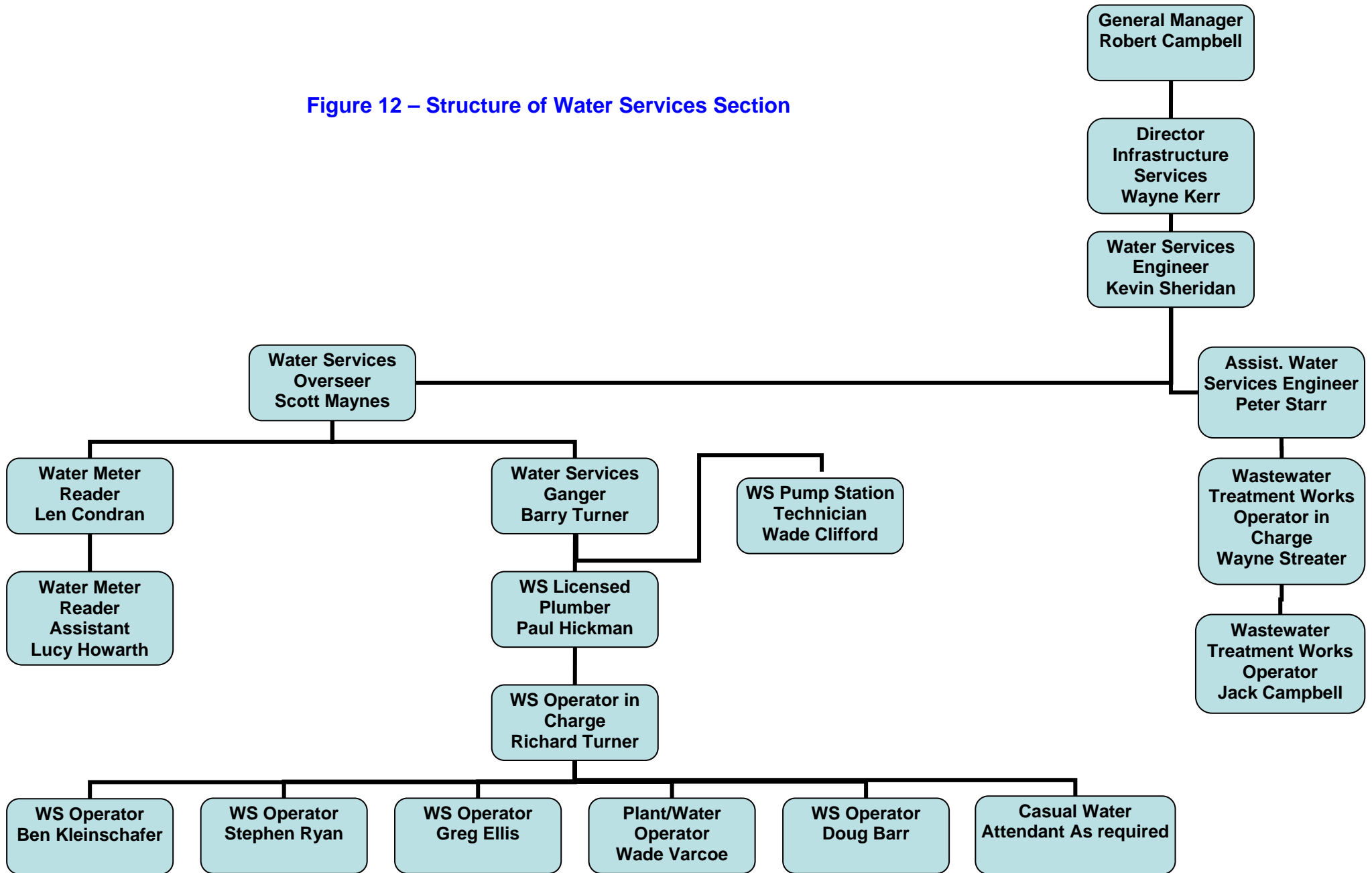


Figure 12 – Structure of Water Services Section



|   |
|---|
| <b>Objective 12: Human Resources</b>  |
| Have appropriate level of skilled staff to meet service delivery objectives |
| <b>Performance Targets</b>  |
| Have an updated Human Resources Plan for Water Services by December 2010    |
| <b>Strategy</b>   |
| Regularly update and implement HR Plan                                      |

| Objective 12: Actions  | Start     | End      | Responsible        | Cost \$000 |         |
|--|-----------|----------|--------------------|------------|---------|
|  |           |          |                    | Implement  | Ongoing |
| <b>Strategy 1</b>  |           |          |                    |            |         |
| Review HR Plan elements<br>– Current position descriptions<br>– Required resources profile<br>– Additional resources and training requirements<br>– HR Plan for Water Services | Started   | Dec 2010 | WSE/ DIS/ MCS/ MHR | NAE        |         |
| Update and implement new staff training program  | June 2010 | Ongoing  | WSE                |            | 5       |
| Develop and maintain an outsourcing register   | June 2010 | Ongoing  | WSE                | NAE        |         |
| Recruit new staff<br>– GIS/ Asset Officer  | July 2011 | Ongoing  | WSE/ DIS           |            | 25      |







This section details Gunnedah Shire Council's objectives relating to the business operation and financial management of the water supply 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 water supply 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 NSW Office of Water 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 water supply charges. Capital funds are drawn from the following four sources:

- Developer charges;
- Government grants;
- Cash and investments; and
- Borrowing.

In accordance with the NOW 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 NOW August 2007 Best Practice Management Guidelines.

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

|  |
|--|
| <b>Objective 13: Finance</b>   |
| Ensure current and future affordability to deliver services while maximising funding opportunities |
| <b>Performance Targets</b>   |
| Review and update Financial Plan annually  |
| <b>Strategies</b>  |
| Maintain a 30-year financial plan  |

| Objective 13: Actions  | Start         | End                     | Responsible   | Cost \$000                             |         |
|--|---------------|-------------------------|---------------|--|---------|
|  |               |                         |               | Implement                              | Ongoing |
| <b>Strategy 1</b>  |               |                         |               |  |         |
| Asset valuation<br>– Existing assets<br>– New works<br>– Developer provided assets                   | Sept 2010     | Ongoing (every 3 years) | WSE/ AO       |  | NAE     |
| Review cost projections for long term Financial Plan   |               | Ongoing                 | AWE/ WSE/ DIS |  | NAE     |
| Update Financial Plan annually including modelling for sensitivity for new development opportunities | February 2010 | Ongoing Annually        | WSE           |  | NAE     |
| Establish a price path for setting the price tariff in accordance with the NOW guidelines            |               | 5 yearly                | MF/ DIS       | 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 Process
- Projected Cost Schedules
- Financial Model Outcomes
- Operating Environment Review



# Financial Management

Contains a summary of the financial modelling process and the model input data

## 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 NSW Office of Water – NOW (previously Department of Water and Energy) in November 2003, has been used for this modelling. A 30-year planning horizon has been adopted as recommended in the NOW Best Practice Guidelines.

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

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

The preferred model presented here assumes that no government grants are available to Council, as the entitlements would have already been received. 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 program 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 assets are valued on the basis of current replacement cost and depreciated according to their remaining lives compared with their expected lives.

All capital works estimates in the text are quoted in real (2009) 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.

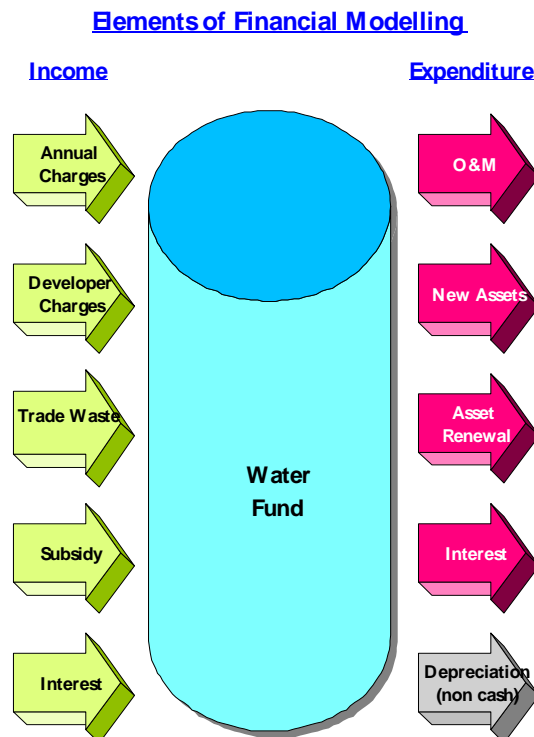
A summary of the financial input data and modelling results are included in the following pages. Detailed financial input data and output financial projections are available in the Appendices.

## 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 e.g. interest rates, growth, inflation
- Projected capital works, and operations and management expenses

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

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

### Opening balances

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

### Developer Charges

New assessments have to pay a developer charge for the benefits being received by connecting to the system. Council is currently reviewing Sec.64 charges for water supply and sewerage services in accordance with NOW Best Practice Management Guidelines for adoption from 2011/12 onwards. For modelling purpose, Section 64 developer charges revenue of \$ 75,000 per year (average) has been considered.

### Growth Projections

For the preferred scenario of the financial model, council has adopted a long-term average growth rate of 0.2% p.a. in line with the population growth rate adopted by Council for all other future planning processes.

## **Inflation**

Average long-term inflation rate of 3.0% p.a. for general and capital works financial activities have been adopted for this financial model.

## **Interest Rates**

A borrowing rate of 6.5% p.a. and investment rate of 5.5% p.a. 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 (e.g. increased income from bulk water sales) then the split can be adjusted to match. Residential charges currently account for 80% of water supply revenues. The same level of revenue split has been used for all the forecast years.

## **Performance Measures**

Council's minimum service criteria will have an impact on the level of charges required e.g. Minimum cash level is generally assumed to be between 10-20% of annual revenues (excluding restricted revenues). For the financial models, \$1 Million (2009\$) 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 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 Supply and Sewerage Program. Councils can apply for funding of up to 50% of Improved Level of Service (ILOS) capital works if their typical residential charge is more than \$350 per annum. The financial model assumes no subsidy for any of the planned ILOS capital works.

## **Ongoing recurrent costs: Management, Operations and Maintenance**

The financial model considers a number of ongoing recurrent costs from historic input details (special schedules). Apart from the capital works plan, projected operations and management expenses also form a significant component of the model inputs.

By default, the model increases historical operation and maintenance expenses on a pro rata basis with respect to adopted assessment growth rate. 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. Details of overrides are as follows:

- Administration – overridden to account for all planned future initiatives
- Engineering & Supervision – overridden to account for recruitment of new GIS/ Assets Officer and for additional staff training
- Operation Expenses – overrides included to account for new programs for assessment of condition of bores and reservoirs, water quality monitoring and reporting and annual update of water model

- Chemical Costs have been overridden to account for the new chlorination plants installed to improve water quality
- Energy Costs have been overridden to account for expected increases due to new sewage pumping stations and augmented Gunnedah STP
- Other Revenue, Grants and Contributions – Revenue through bulk water supply to tannery (\$125 K/year) has been included in the revised ‘Other Revenue’ projections
- Other Expenses – proposed dividend payment of dividend of \$112 K/year (average) from 2014/15 onwards has been included as an additional expense

These are shown in detail in the following section ‘Projected Cost Schedules’.

### Assumptions and Limitations

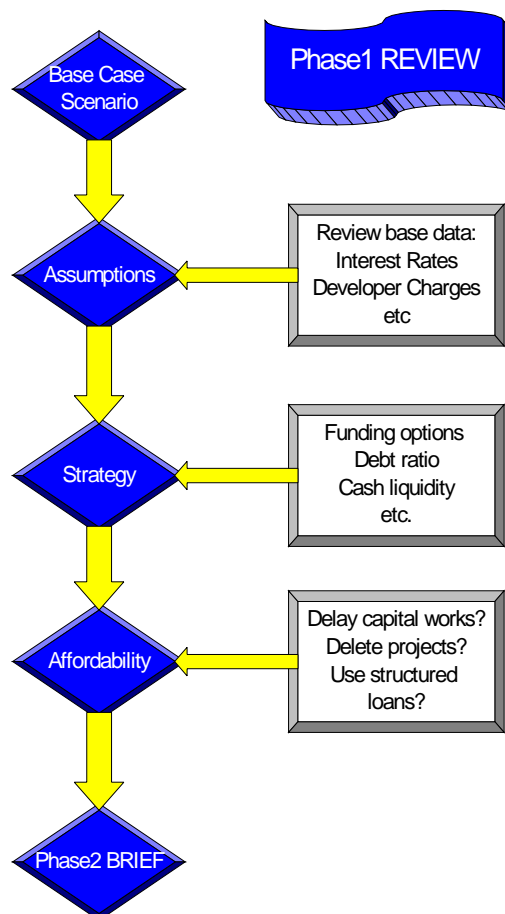
The projections of the financial plans are based on past financial performance. Allowance is made for new initiatives, future rate forecasts, and maintenance of sustainable levels of service as identified in the strategic planning process.

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 intergenerational 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 NOW 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 declining growth rates, or rise in energy costs, may be considerable. Increasingly the impact of water demand management resulting in loss of water 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 that requires subsidy then annual updates are recommended.

# Projected Cost Schedules

This section looks at the projected capital works and recurrent expenditure for the next 30 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 unserved 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 (2009/10) dollars.



Figure 13 – Detailed Capital Works Schedule for Water Supply

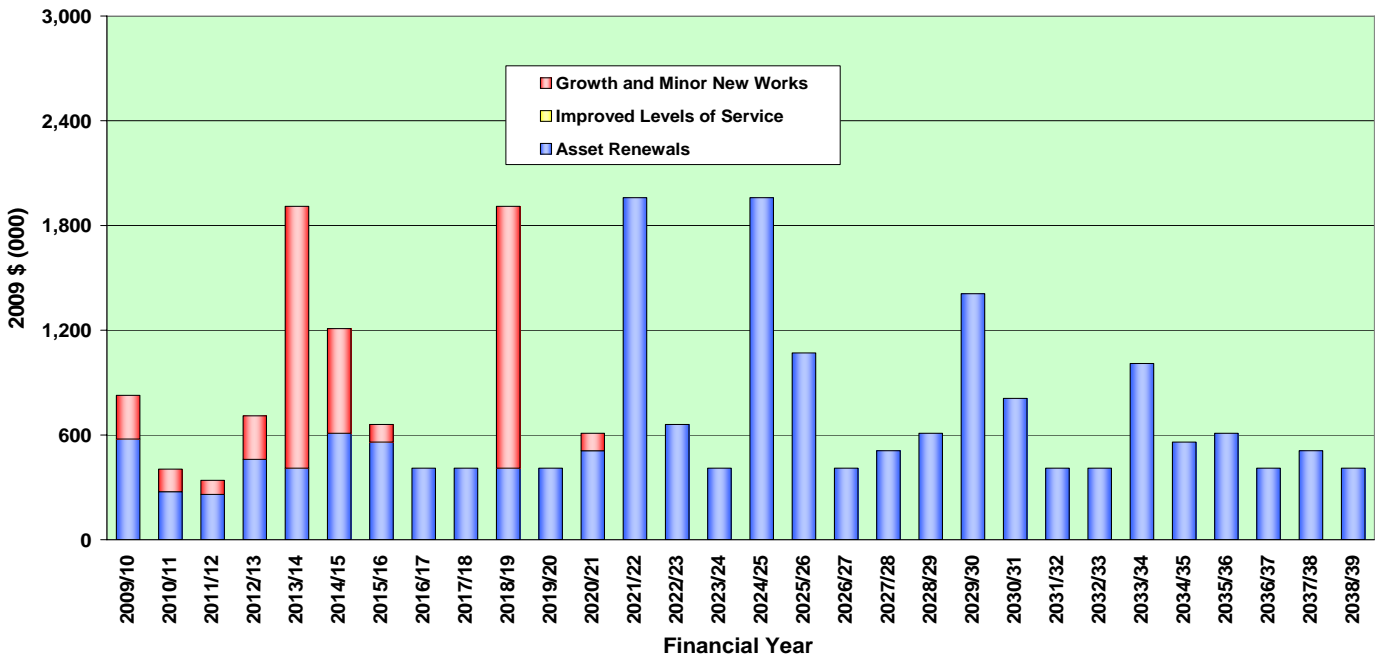
| GUNNEDAH SHIRE COUNCIL - STRATEGIC ACTION PLANNING |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
|--|--------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|-------------|------------|------------|-------------|------------|------------|-------------|-------------|------------|------------|------------|-------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|
| WATER SUPPLY                                       |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| CAPITAL WORKS (\$000)                              |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
|  | TOTAL        | 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         |
|  |              | 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      | 33/34      | 34/35       | 35/36      | 36/37      | 37/38      | 38/39      | 39/40      |
| <b>New Works - Growth</b>                          |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| Borthistle reservoir 4 ML                          | 1500         |            |            |            |            |             |             |            |            |            | 1500        |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| Sub Division Development                           | 900          |            | 100        |            |            |             | 600         | 100        |            |            |             | 100        |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| Chlorination plant                                 | 250          | 250        |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| <b>Sub-total</b>                                   | <b>2650</b>  | <b>250</b> | <b>100</b> | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>600</b>  | <b>100</b> | <b>0</b>   | <b>0</b>   | <b>1500</b> | <b>0</b>   | <b>100</b> | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| <b>New Works - ILOS</b>                            |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| Curlewis WQ Improvement Augmentation               | 330          |            | 30         | 50         | 250        |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| Gunnedah - Apex Reservoir (Emergency Storage) 4 ML | 1530         |            |            | 30         |            | 1500        |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| <b>Sub-total</b>                                   | <b>1860</b>  | <b>0</b>   | <b>30</b>  | <b>80</b>  | <b>250</b> | <b>1500</b> | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| <b>Total</b>                                       | <b>4510</b>  | <b>250</b> | <b>130</b> | <b>80</b>  | <b>250</b> | <b>1500</b> | <b>600</b>  | <b>100</b> | <b>0</b>   | <b>0</b>   | <b>1500</b> | <b>0</b>   | <b>100</b> | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| <b>Minor New Works</b>                             |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| <b>Sub-total</b>                                   | <b>0</b>     | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |
| <b>Renewals</b>                                    |              |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |            |            |            |            |            |
| Bore renewals                                      | 987          | 87         |            |            |            |             | 200         |            |            |            |             |            |            | 150         |            |            |             |             |            | 200        |            | 150         |            |            |            |             |            | 200        |            |            |            |
| Technology renewals (telemetry)                    | 350          |            |            |            |            |             |             | 150        |            |            |             |            |            |             |            | 50         |             |             |            |            |            |             |            |            |            |             |            |            | 150        |            |            |
| Water service renewals                             | 310          | 20         | 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         |
| Water Main renewals                                | 13035        | 470        | 265        | 250        | 450        | 400         | 400         | 400        | 400        | 400        | 400         | 400        | 500        | 300         | 400        | 400        | 400         | 400         | 1000       | 400        | 400        | 400         | 400        | 400        | 400        | 400         | 400        | 400        | 400        | 400        | 400        |
| Reservoir renewals                                 | 4500         |            |            |            |            |             |             |            |            |            |             |            |            | 1500        | 250        |            | 1500        |             |            |            |            | 1000        | 250        |            |            |             |            |            |            |            |            |
| Transfer pump renewals                             | 260          |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             | 60          |            | 100        |            |             |            |            |            |             |            |            | 100        |            |            |
| <b>Sub-total</b>                                   | <b>19442</b> | <b>577</b> | <b>275</b> | <b>260</b> | <b>460</b> | <b>410</b>  | <b>610</b>  | <b>560</b> | <b>410</b> | <b>410</b> | <b>410</b>  | <b>410</b> | <b>510</b> | <b>1960</b> | <b>660</b> | <b>410</b> | <b>1960</b> | <b>1070</b> | <b>410</b> | <b>510</b> | <b>610</b> | <b>1410</b> | <b>810</b> | <b>410</b> | <b>410</b> | <b>1010</b> | <b>560</b> | <b>610</b> | <b>410</b> | <b>510</b> | <b>410</b> |
| <b>GRAND TOTAL</b>                                 | <b>23952</b> | <b>827</b> | <b>405</b> | <b>340</b> | <b>710</b> | <b>1910</b> | <b>1210</b> | <b>660</b> | <b>410</b> | <b>410</b> | <b>1910</b> | <b>410</b> | <b>610</b> | <b>1960</b> | <b>660</b> | <b>410</b> | <b>1960</b> | <b>1070</b> | <b>410</b> | <b>510</b> | <b>610</b> | <b>1410</b> | <b>810</b> | <b>410</b> | <b>410</b> | <b>1010</b> | <b>560</b> | <b>610</b> | <b>410</b> | <b>510</b> | <b>410</b> |

Figure 14 – Detailed Recurrent Cost Schedule for Water Supply

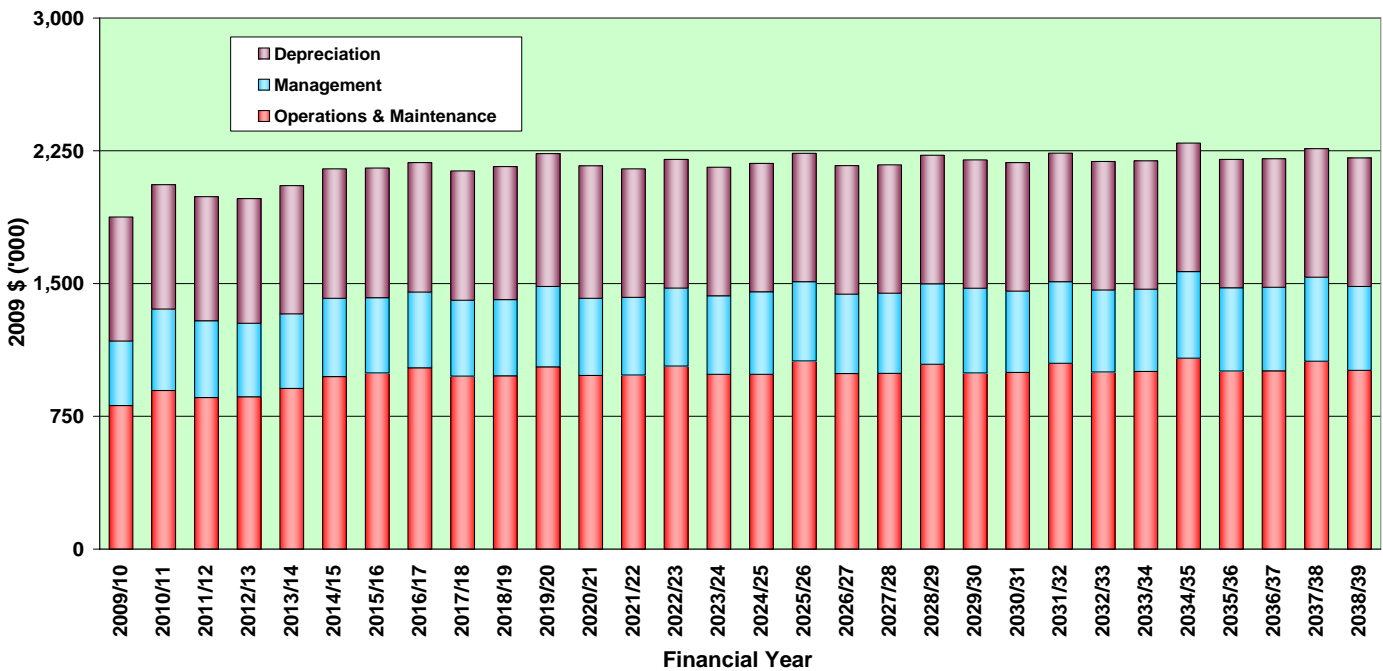
WATER SUPPLY - OPERATIONS, MAINT, ADMIN AND REVENUE OVERRIDES <INCREASES IN RECURRENT EXPENDITURE> (2009/10 \$000)

| 30 YEAR  | 2009          | 0          | 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          | 9          | 10         | 11         | 12         | 13         | 14         | 15         | 16         | 17         | 18         | 19         | 20         | 21         | 22         | 23         | 24         | 25         | 26         | 27         | 28         | 29         | 30         |            |           |    |    |
|--|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|----|----|
| TOTAL  | 2009/10       | 2010/11    | 2009/10    | 2010/11    | 2011/12    | 2012/13    | 2013/14    | 2014/15    | 2015/16    | 2016/17    | 2017/18    | 2018/19    | 2019/20    | 2020/21    | 2021/22    | 2022/23    | 2023/24    | 2024/25    | 2025/26    | 2026/27    | 2027/28    | 2028/29    | 2029/30    | 2030/31    | 2031/32    | 2032/33    | 2033/34    | 2034/35    | 2035/36    | 2036/37    | 2037/38    | 2038/39    |            |           |    |    |
| <b>Administration</b>  |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| <b>Obj. Action</b>   |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 1 Strategic Business Plan  | 120           |            | 30         |            |            |            |            | 18         |            |            |            |            | 18         |            |            |            | 18         |            |            |            |            |            | 18         |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 1 Best Practice Compliance Audit   | 84            |            |            |            | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3         | 3  | 3  |
| 3 Promote Save Water Alliance Initiatives                                | 290           |            | 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         | 10         | 10         | 10        | 10 | 10 |
| 3 Leakage investigation study/ water loss management program             | 160           |            |            | 25         | 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          | 5          | 5          | 5         | 5  |    |
| 3 Update and implement Water Conservation Plan                           | 290           |            | 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         | 10         | 10         | 10        | 10 | 10 |
| 3 Rebate program for Water Saving appliances                             | 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         | 10         | 10         | 10         | 10        | 10 | 10 |
| 4 Review and update of Sec.64 developer charges                          | 10            |            | 10         |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 6 Referesh Training for Customer Service                                 | 116           |            | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4         | 4  |    |
| 7 Community consultations (Sec.64 review)                                | 2             |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 8 IWCM - Evaluation Study (net of grant)                                 | 30            |            | 30         |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 8 Hydro-geological study of aquifers                                     | 60            |            | 60         |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 8 Bore water quality monitoring  | 290           |            | 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         | 10         | 10         | 10        | 10 |    |
| <b>Total Adjustment</b>  | <b>1,732</b>  |            | <b>40</b>  | <b>126</b> | <b>72</b>  | <b>52</b>  | <b>52</b>  | <b>70</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>70</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>70</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>70</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>70</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b>  | <b>52</b> |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>6,095</b>  | <b>117</b> | <b>135</b> | <b>179</b> | <b>266</b> | <b>212</b> | <b>193</b> | <b>193</b> | <b>212</b> | <b>194</b> | <b>194</b> | <b>195</b> | <b>195</b> | <b>214</b> | <b>196</b> | <b>196</b> | <b>197</b> | <b>197</b> | <b>216</b> | <b>198</b> | <b>198</b> | <b>199</b> | <b>199</b> | <b>218</b> | <b>200</b> | <b>200</b> | <b>201</b> | <b>201</b> | <b>221</b> | <b>202</b> | <b>203</b> | <b>203</b> | <b>203</b> |           |    |    |
| <b>Engineering and Supervision</b>                                       |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 12 Recruit new staff - GIS/ Assets Officer                               | 700           |            |            |            | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25         | 25        |    |    |
| 12 Additional Expenses for ongoing Staff Training                        | 142           |            |            | 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          | 5          | 5          | 5          | 2         |    |    |
| <b>Total Adjustment</b>  | <b>842</b>    |            | <b>0</b>   | <b>5</b>   | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>30</b>  | <b>27</b>  |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>6,489</b>  | <b>166</b> | <b>176</b> | <b>182</b> | <b>187</b> | <b>213</b> | <b>213</b> | <b>213</b> | <b>214</b> | <b>214</b> | <b>215</b> | <b>215</b> | <b>216</b> | <b>216</b> | <b>217</b> | <b>217</b> | <b>217</b> | <b>218</b> | <b>218</b> | <b>219</b> | <b>219</b> | <b>220</b> | <b>220</b> | <b>221</b> | <b>221</b> | <b>222</b> | <b>222</b> | <b>223</b> | <b>223</b> | <b>224</b> | <b>224</b> | <b>224</b> | <b>224</b> |           |    |    |
| <b>Operations Expenses</b>   |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| 9 Bore condition analysis  | 150           |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15         |            |            | 15        |    |    |
| 9 Reservoir condition analysis   | 300           |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30         |            |            | 30        |    |    |
| 9 Water quality monitoring and reporting                                 | 1,015         |            | 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         | 35         | 35         | 35        | 35 |    |
| 9 H2O Map model updating   | 200           |            |            | 5          | 5          | 5          | 5          | 25         | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 25         | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5          | 5         |    |    |
| <b>Total Adjustment</b>  | <b>1,665</b>  |            | <b>0</b>   | <b>80</b>  | <b>40</b>  | <b>40</b>  | <b>85</b>  | <b>40</b>  | <b>60</b>  | <b>85</b>  | <b>40</b>  | <b>40</b>  | <b>85</b>  | <b>40</b>  | <b>40</b>  | <b>85</b>  | <b>40</b>  | <b>40</b>  | <b>105</b> | <b>40</b>  | <b>40</b>  | <b>85</b>  | <b>40</b>  | <b>40</b>  | <b>85</b>  | <b>40</b>  | <b>40</b>  | <b>105</b> | <b>40</b>  | <b>40</b>  | <b>85</b>  | <b>40</b>  | <b>40</b>  |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>1,720</b>  | <b>0</b>   | <b>0</b>   | <b>80</b>  | <b>40</b>  | <b>40</b>  | <b>86</b>  | <b>40</b>  | <b>61</b>  | <b>86</b>  | <b>41</b>  | <b>41</b>  | <b>87</b>  | <b>41</b>  | <b>41</b>  | <b>87</b>  | <b>41</b>  | <b>41</b>  | <b>109</b> | <b>42</b>  | <b>42</b>  | <b>89</b>  | <b>42</b>  | <b>42</b>  | <b>89</b>  | <b>42</b>  | <b>42</b>  | <b>111</b> | <b>42</b>  | <b>42</b>  | <b>90</b>  | <b>43</b>  |            |           |    |    |
| <b>Maintenance Expenses</b>  |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| <b>Total Adjustment</b>  | <b>0</b>      |            | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>19,467</b> | <b>659</b> | <b>610</b> | <b>630</b> | <b>631</b> | <b>632</b> | <b>633</b> | <b>634</b> | <b>636</b> | <b>637</b> | <b>638</b> | <b>640</b> | <b>641</b> | <b>643</b> | <b>644</b> | <b>645</b> | <b>647</b> | <b>648</b> | <b>649</b> | <b>651</b> | <b>652</b> | <b>654</b> | <b>655</b> | <b>656</b> | <b>658</b> | <b>659</b> | <b>661</b> | <b>662</b> | <b>663</b> | <b>665</b> | <b>666</b> | <b>668</b> | <b>669</b> |           |    |    |
| <b>Energy Costs</b>  |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| <b>Total Adjustment</b>  | <b>0</b>      |            | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>5,233</b>  | <b>162</b> | <b>164</b> | <b>169</b> | <b>170</b> | <b>170</b> | <b>171</b> | <b>171</b> | <b>171</b> | <b>172</b> | <b>172</b> | <b>172</b> | <b>173</b> | <b>173</b> | <b>173</b> | <b>174</b> | <b>174</b> | <b>175</b> | <b>175</b> | <b>175</b> | <b>176</b> | <b>176</b> | <b>176</b> | <b>176</b> | <b>177</b> | <b>177</b> | <b>178</b> | <b>178</b> | <b>178</b> | <b>179</b> | <b>179</b> | <b>179</b> | <b>180</b> |           |    |    |
| <b>Chemical Costs</b>  |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| Chlorination chemical cost (Sodium Hypo)                                 | 447           |            | 12         | 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         | 15         | 15         | 15         | 15         | 15         | 15        |    |    |
| <b>Total Adjustment</b>  | <b>447</b>    |            | <b>12</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>462</b>    | <b>0</b>   | <b>0</b>   | <b>12</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>15</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  | <b>16</b>  |           |    |    |
| <b>Purchase of Water</b>   |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| <b>Total Adjustment</b>  | <b>0</b>      |            | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>0</b>      | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |           |    |    |
| <b>Other Expenses</b>  |               |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |
| <b>Total Adjustment</b>  | <b>0</b>      |            | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   |           |    |    |
| <b>Override (Inflated to 09/10\$ and pro-rata adjustment for growth)</b> | <b>2,042</b>  | <b>55</b>  | <b>64</b>  | <b>66</b>  | <b>66</b>  | <b>66</b>  | <b>67</b>  | <b>67</b>  | <b>67</b>  |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |           |    |    |

**Figure 15 –Capital Works Plan for Water Supply**



**Figure 16 – Recurrent Cost Plan for Water Supply**



**Figure 17 – Water Supply Capital Works Summary**

| <b>2009/10 \$<br/>(000)</b> | <b>Growth<br/>and Minor<br/>Works</b> | <b>Improved<br/>Levels of<br/>Service</b> | <b>Asset<br/>Renewals</b> | <b>Total<br/>Capital<br/>Works</b> | <b>Expected<br/>Subsidy</b> | <b>Cost to<br/>Council</b> |
|-----------------------------|---------------------------------------|---|---------------------------|------------------------------------|-----------------------------|----------------------------|
| 2009/10                     | 250                                   | 0   | 577                       | 827                                | 0                           | 827                        |
| 2010/11                     | 130                                   | 0   | 275                       | 405                                | 0                           | 405                        |
| 2011/12                     | 80                                    | 0   | 260                       | 340                                | 0                           | 340                        |
| 2012/13                     | 250                                   | 0   | 460                       | 710                                | 0                           | 710                        |
| 2013/14                     | 1,500                                 | 0   | 410                       | 1,910                              | 0                           | 1,910                      |
| 2014/15                     | 600                                   | 0   | 610                       | 1,210                              | 0                           | 1,210                      |
| 2015/16                     | 100                                   | 0   | 560                       | 660                                | 0                           | 660                        |
| 2016/17                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2017/18                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2018/19                     | 1,500                                 | 0   | 410                       | 1,910                              | 0                           | 1,910                      |
| 2019/20                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2020/21                     | 100                                   | 0   | 510                       | 610                                | 0                           | 610                        |
| 2021/22                     | 0                                     | 0   | 1,960                     | 1,960                              | 0                           | 1,960                      |
| 2022/23                     | 0                                     | 0   | 660                       | 660                                | 0                           | 660                        |
| 2023/24                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2024/25                     | 0                                     | 0   | 1,960                     | 1,960                              | 0                           | 1,960                      |
| 2025/26                     | 0                                     | 0   | 1,070                     | 1,070                              | 0                           | 1,070                      |
| 2026/27                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2027/28                     | 0                                     | 0   | 510                       | 510                                | 0                           | 510                        |
| 2028/29                     | 0                                     | 0   | 610                       | 610                                | 0                           | 610                        |
| 2029/30                     | 0                                     | 0   | 1,410                     | 1,410                              | 0                           | 1,410                      |
| 2030/31                     | 0                                     | 0   | 810                       | 810                                | 0                           | 810                        |
| 2031/32                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2032/33                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2033/34                     | 0                                     | 0   | 1,010                     | 1,010                              | 0                           | 1,010                      |
| 2034/35                     | 0                                     | 0   | 560                       | 560                                | 0                           | 560                        |
| 2035/36                     | 0                                     | 0   | 610                       | 610                                | 0                           | 610                        |
| 2036/37                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| 2037/38                     | 0                                     | 0   | 510                       | 510                                | 0                           | 510                        |
| 2038/39                     | 0                                     | 0   | 410                       | 410                                | 0                           | 410                        |
| <b>Total</b>                | <b>4,510</b>                          | <b>0</b>                                  | <b>19,442</b>             | <b>23,952</b>                      | <b>0</b>                    | <b>23,952</b>              |



# Financial Modelling Outcomes

Contains summary of the financial modelling assumptions and outcomes

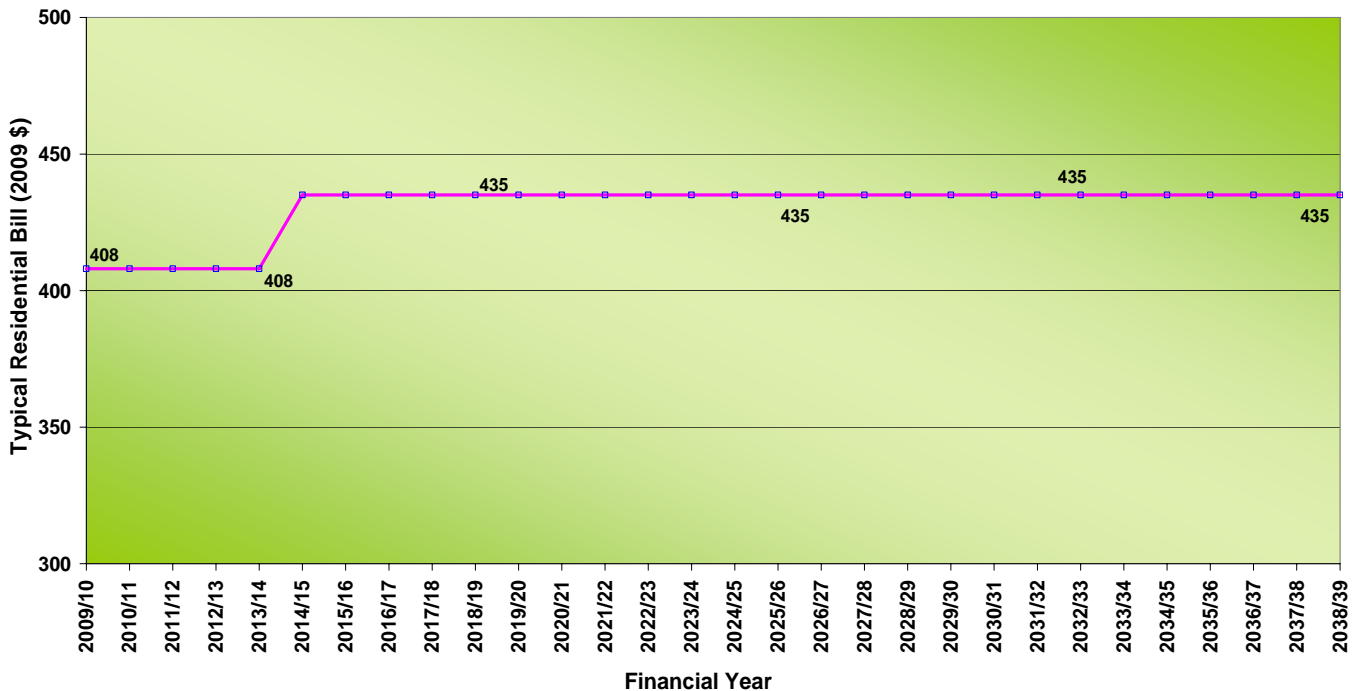
## Results of Modelling Process

In line with current NOW guidelines, the financial plan identifies the lowest stable typical residential bill required with maximum utilisation of existing cash reserves in the water fund. A number of scenarios have been analysed before Council adopting a preferred scenario for this financial plan. Modelling outcomes of the preferred scenario are presented in this section. Brief summary of outcomes of other scenarios analysed are presented at the end of this section.

As discussed in the previous section, preferred scenario of the financial model assumes that no government grant/ subsidy will be available for any of the capital works planned for the next 30-years.

Financial modelling has demonstrated that the typical residential water charge, measured in 2009 dollars, can be maintained at the current \$408 p.a. level for the next 3 years (till 2013/14). Typical residential charge need to increase to \$435 p.a. from year 2014/15 onwards for the remainder of the 30-year forecast period (see Figure below) as Council plans to pay dividend from operating surplus in accordance with NOW Best Practice Guidelines. This level of charges is sufficient to maintain liquidity with a minimum of \$1 Million of cash in hand over the period.

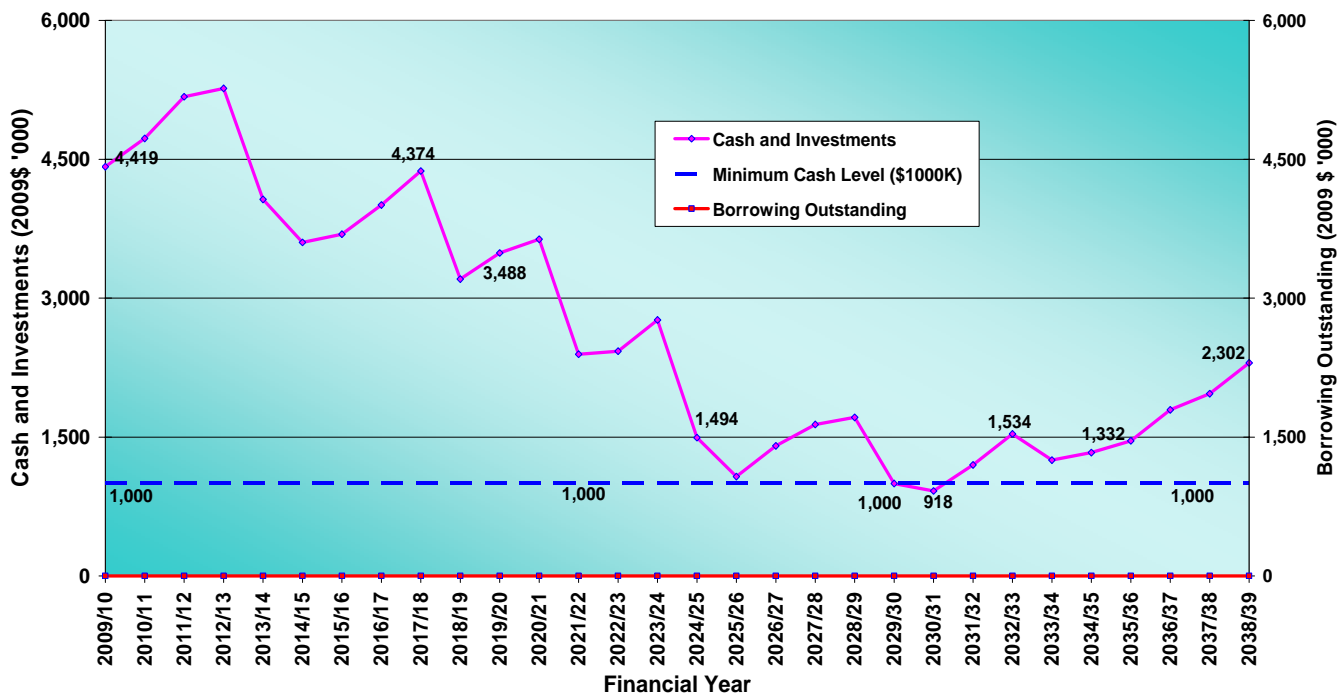
**Figure 18 – Typical Residential Water Bill**



There are no existing external loans in the water fund and this will be the case throughout the forecast period as no new borrowing will be required.

The levels of cash and borrowing outstanding during the forecast period are depicted in the following Figure. A summary of projected financial results is presented in the Table next page.

**Figure 19 – Cash and Borrowing Projections for Water Supply**



Detailed financial model projections of Council's preferred financial scenario for water fund are shown in Appendices E and F.

**Figure 20 – Projected Financial Results for Water Supply**

| 2009/10<br>\$ ('000) | Revenue and Expenses |                |                                  | Capital Transactions  |                         | Financial Position   |            |              |                   |                      | System Assets            |                                |                           |     |
|----------------------|----------------------|----------------|----------------------------------|-----------------------|-------------------------|----------------------|------------|--------------|-------------------|----------------------|--------------------------|--------------------------------|---------------------------|-----|
|                      | 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 |     |
| 2009/10              | 2,274                | 1,942          | 332                              | 827                   | 0                       | 4,419                | 0          | 37,966       | 3                 | 37,963               | 52,041                   | 19,659                         | 32,382                    | 408 |
| 2010/11              | 2,287                | 2,124          | 163                              | 405                   | 0                       | 4,726                | 0          | 37,966       | 3                 | 37,963               | 52,171                   | 20,052                         | 32,118                    | 408 |
| 2011/12              | 2,307                | 2,057          | 251                              | 340                   | 0                       | 5,176                | 0          | 38,060       | 3                 | 38,057               | 52,251                   | 20,461                         | 31,790                    | 408 |
| 2012/13              | 2,318                | 2,046          | 272                              | 710                   | 0                       | 5,266                | 0          | 38,164       | 3                 | 38,161               | 52,501                   | 20,672                         | 31,829                    | 408 |
| 2013/14              | 2,284                | 2,119          | 165                              | 1,909                 | 0                       | 4,067                | 0          | 38,163       | 3                 | 38,160               | 54,000                   | 20,956                         | 33,045                    | 408 |
| 2014/15              | 2,372                | 2,215          | 157                              | 1,210                 | 0                       | 3,603                | 0          | 38,172       | 3                 | 38,169               | 54,601                   | 21,048                         | 33,553                    | 435 |
| 2015/16              | 2,364                | 2,219          | 145                              | 660                   | 0                       | 3,691                | 0          | 38,184       | 3                 | 38,181               | 54,700                   | 21,190                         | 33,510                    | 435 |
| 2016/17              | 2,376                | 2,249          | 127                              | 410                   | 0                       | 4,006                | 0          | 38,177       | 2                 | 38,175               | 54,700                   | 21,483                         | 33,217                    | 435 |
| 2017/18              | 2,393                | 2,203          | 189                              | 410                   | 0                       | 4,374                | 0          | 38,223       | 2                 | 38,221               | 54,700                   | 21,776                         | 32,924                    | 435 |
| 2018/19              | 2,370                | 2,228          | 142                              | 1,910                 | 0                       | 3,205                | 0          | 38,212       | 2                 | 38,210               | 56,200                   | 22,090                         | 34,109                    | 435 |
| 2019/20              | 2,361                | 2,300          | 61                               | 410                   | 0                       | 3,488                | 0          | 38,156       | 2                 | 38,154               | 56,200                   | 22,405                         | 33,795                    | 435 |
| 2020/21              | 2,368                | 2,231          | 137                              | 610                   | 0                       | 3,636                | 0          | 38,168       | 2                 | 38,166               | 56,300                   | 22,620                         | 33,679                    | 435 |
| 2021/22              | 2,338                | 2,214          | 123                              | 1,960                 | 0                       | 2,395                | 0          | 38,163       | 2                 | 38,161               | 56,300                   | 21,386                         | 34,913                    | 435 |
| 2022/23              | 2,329                | 2,267          | 62                               | 660                   | 0                       | 2,427                | 0          | 38,133       | 2                 | 38,131               | 56,300                   | 21,453                         | 34,847                    | 435 |
| 2023/24              | 2,341                | 2,223          | 118                              | 410                   | 0                       | 2,765                | 0          | 38,156       | 2                 | 38,154               | 56,299                   | 21,769                         | 34,531                    | 435 |
| 2024/25              | 2,314                | 2,245          | 69                               | 1,960                 | 0                       | 1,494                | 0          | 38,121       | 2                 | 38,119               | 56,300                   | 20,534                         | 35,765                    | 435 |
| 2025/26              | 2,294                | 2,302          | (8)                              | 1,070                 | 0                       | 1,073                | 0          | 38,046       | 2                 | 38,044               | 56,299                   | 20,191                         | 36,109                    | 435 |
| 2026/27              | 2,305                | 2,232          | 73                               | 410                   | 0                       | 1,405                | 0          | 38,063       | 2                 | 38,061               | 56,299                   | 20,506                         | 35,793                    | 435 |
| 2027/28              | 2,318                | 2,237          | 82                               | 510                   | 0                       | 1,636                | 0          | 38,081       | 2                 | 38,079               | 56,299                   | 20,723                         | 35,577                    | 435 |
| 2028/29              | 2,325                | 2,291          | 34                               | 610                   | 0                       | 1,713                | 0          | 38,043       | 2                 | 38,041               | 56,299                   | 20,838                         | 35,461                    | 435 |
| 2029/30              | 2,309                | 2,265          | 45                               | 1,410                 | 0                       | 998                  | 0          | 38,015       | 2                 | 38,013               | 56,299                   | 20,154                         | 36,146                    | 435 |
| 2030/31              | 2,308                | 2,249          | 59                               | 810                   | 0                       | 918                  | 0          | 38,020       | 2                 | 38,018               | 56,299                   | 20,069                         | 36,230                    | 435 |
| 2031/32              | 2,321                | 2,303          | 18                               | 410                   | 0                       | 1,199                | 0          | 37,988       | 2                 | 37,986               | 56,299                   | 20,385                         | 35,914                    | 435 |
| 2032/33              | 2,335                | 2,256          | 79                               | 410                   | 0                       | 1,534                | 0          | 38,008       | 2                 | 38,006               | 56,299                   | 20,701                         | 35,598                    | 435 |
| 2033/34              | 2,330                | 2,259          | 70                               | 1,010                 | 0                       | 1,250                | 0          | 38,009       | 1                 | 38,008               | 56,299                   | 20,418                         | 35,881                    | 435 |
| 2034/35              | 2,338                | 2,360          | (22)                             | 560                   | 0                       | 1,332                | 0          | 37,926       | 1                 | 37,925               | 56,299                   | 20,583                         | 35,715                    | 435 |
| 2035/36              | 2,344                | 2,268          | 77                               | 610                   | 0                       | 1,460                | 0          | 37,940       | 1                 | 37,939               | 56,299                   | 20,699                         | 35,599                    | 435 |
| 2036/37              | 2,357                | 2,271          | 86                               | 410                   | 0                       | 1,794                | 0          | 37,959       | 1                 | 37,958               | 56,298                   | 21,015                         | 35,283                    | 435 |
| 2037/38              | 2,365                | 2,328          | 36                               | 510                   | 0                       | 1,968                | 0          | 37,919       | 1                 | 37,918               | 56,299                   | 21,231                         | 35,068                    | 435 |
| 2038/39              | 2,378                | 2,276          | 102                              | 410                   | 0                       | 2,302                | 0          | 37,938       | 1                 | 37,937               | 56,298                   | 21,547                         | 34,752                    | 435 |

### Sensitivity Analysis

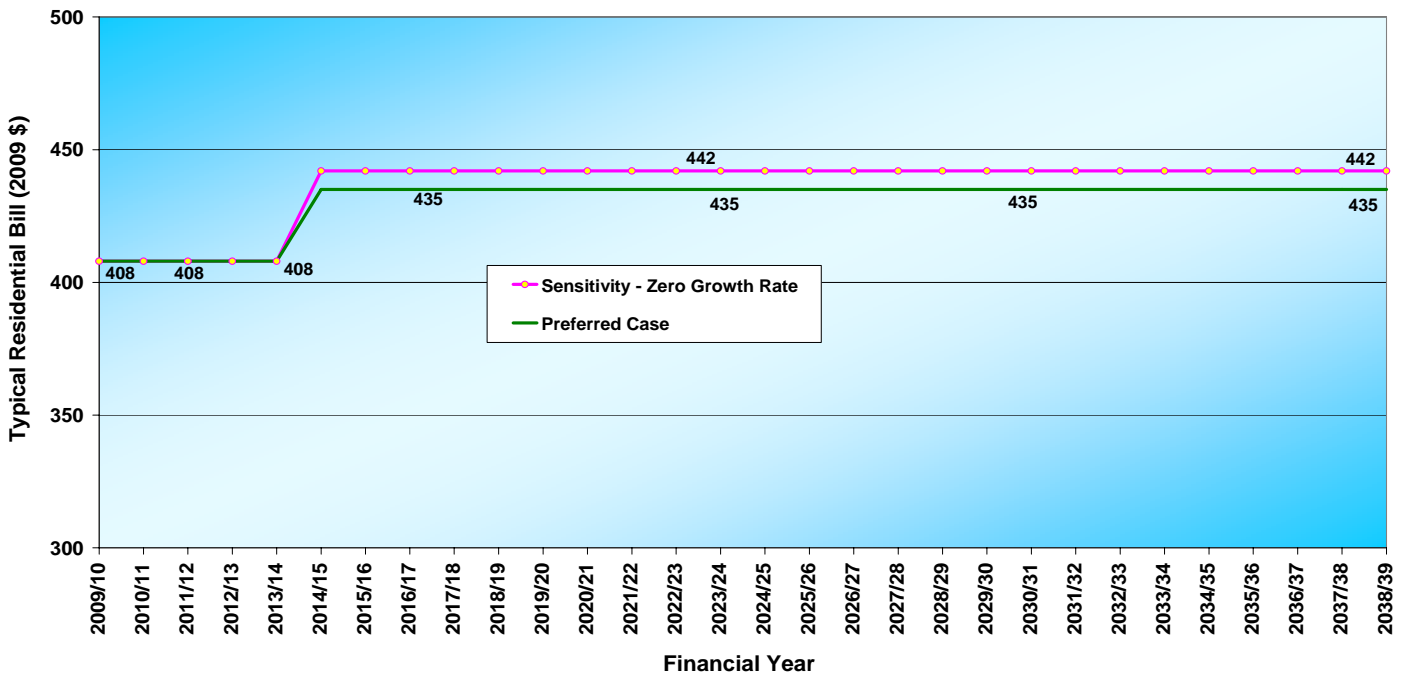
In accordance with the NOW Financial Guidelines, the sensitivity of preferred scenario for the following parameter has been analysed to evaluate the impact on typical residential bill for water supply:

| Criteria | Preferred Case | Sensitivity |
|----------|----------------|-------------|
| Growth   | 0.2% p.a.      | 0.0% p.a.   |

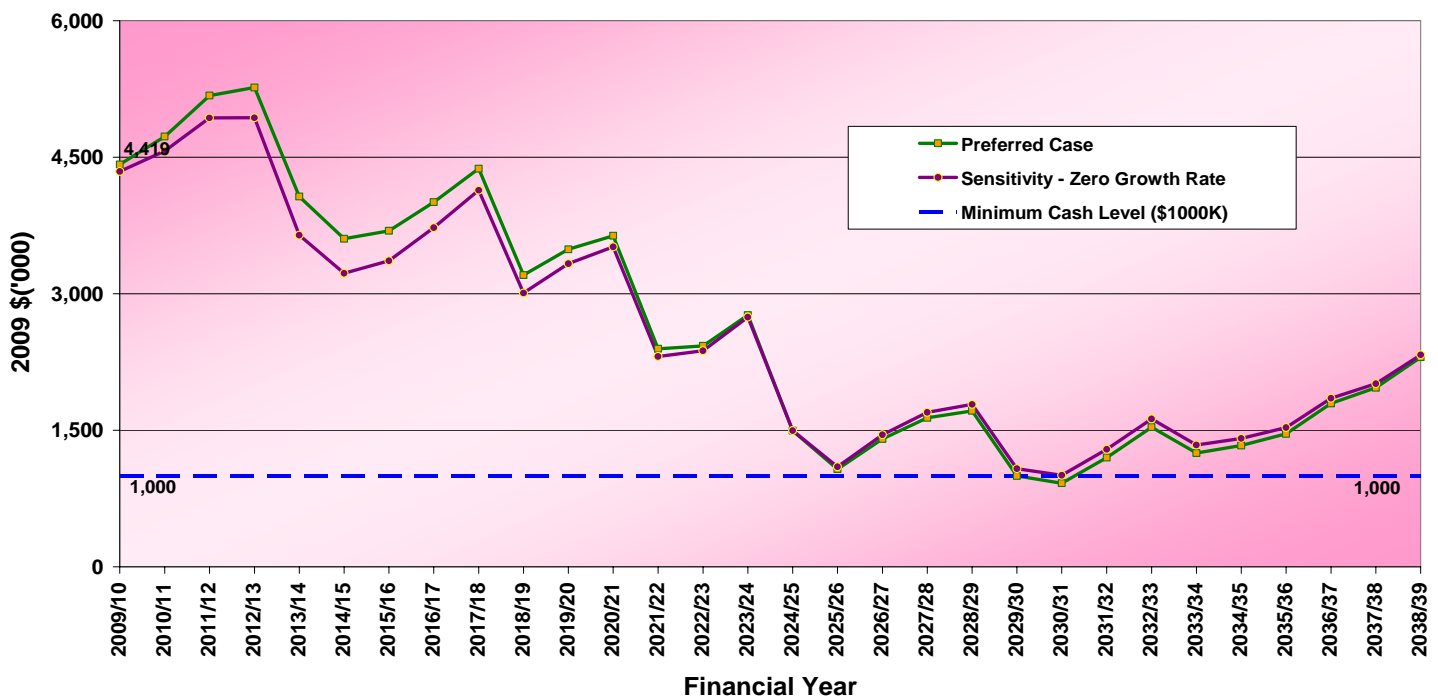
As the preferred scenario does not involve any government grant/ subsidy or new external borrowings, sensitivities for the 'no subsidy' and 'higher interest rate' parameters have not been analysed.

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

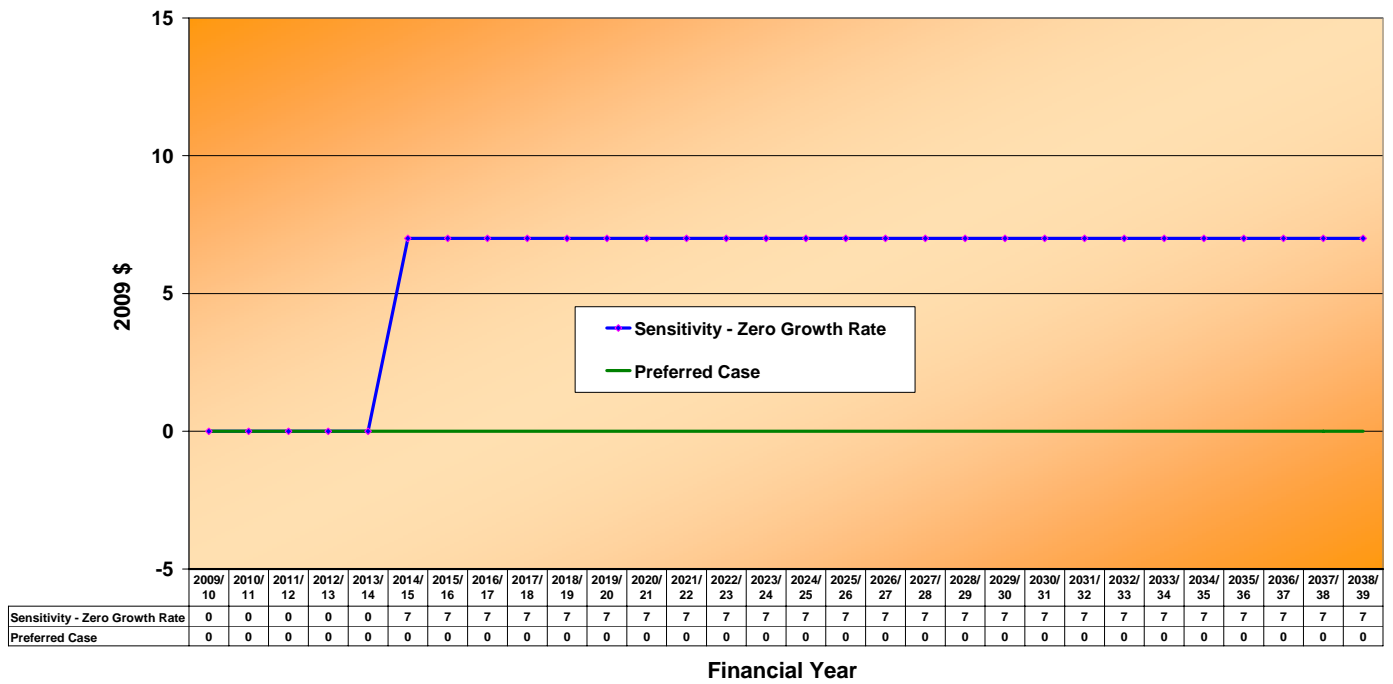
**Figure 21 –Sensitivity of Typical Residential Bill**



**Figure 22 –Sensitivity of Cash Levels**



**Figure 23 – Effect of Sensitivity on the Preferred Typical Residential Bill**



Sensitivity analysis indicates that the financial projections are moderately sensitive to future lower growth rates.

**Brief summary of outcomes of financial Modelling Scenarios**

| Case   | Main Input Parameters  | Projected Annual Typical Residential Bill (in 2009/10 \$)  | Remarks  |
|--|--|--|--|
| Base Case  | <ul style="list-style-type: none"> <li>- Assessment growth rate of 1.0% p.a. for next 5 years and thereafter 0.5% p.a.</li> <li>- Sec. 64 revenue \$150 K/year for first 5 years and thereafter \$75 K/year</li> <li>- Bulk water supply to tannery revenue \$150K/year</li> <li>- No subsidy for any of the planned capital works expected</li> <li>- Minimum cash \$1000K</li> <li>- Higher weighting for village customers</li> </ul> | <ul style="list-style-type: none"> <li>- TRB from 2011/12 onwards for next 29 years - \$ 358 p.a.</li> <li>TRB to be decreased by \$50 for Gunnedah and in proportion to weightings for villages</li> </ul>  | No new borrowings required and all planned capital works will be funded from available cash reserves |
| Revised Base Case  | <ul style="list-style-type: none"> <li>- Assessment growth rate 0.5% p.a. for all forecast years</li> <li>- Sec.64 revenue considered \$75 K/year for all forecast years</li> <li>- Bulk water supply to tannery revenue \$125K/year</li> <li>- No weighting of village customers</li> <li>- All other inputs as in the case above</li> </ul>  | <ul style="list-style-type: none"> <li>- TRB from 2011/12 onwards for next 29 years: \$ 408 p.a.</li> <li>TRB (in 2009 \$) can be maintained at the current level for all the forecast years</li> </ul>  | No new borrowings required and all planned capital works will be funded from available cash reserves |
| <b>Scenario 1 -</b><br>Low Growth and dividend from 2014/15 (Preferred Scenario) | <ul style="list-style-type: none"> <li>- Assessment growth rate 0.2% p.a. for all forecast years</li> <li>- Dividend of \$112 K/year paid from 2014/15 onwards</li> <li>- All other inputs as in the revised base case</li> </ul>  | <ul style="list-style-type: none"> <li>- TRB from 2011/12 onwards for next 3 years - \$ 408 p.a.</li> <li>- TRB 2014/15 onwards - \$435 p.a.</li> <li>TRB (in 2009 \$) to be maintained at the current level for next 3 years and thereafter to be increased by \$27 in 2014/15</li> </ul> | No new borrowings required and all planned capital works will be funded from available cash reserves |

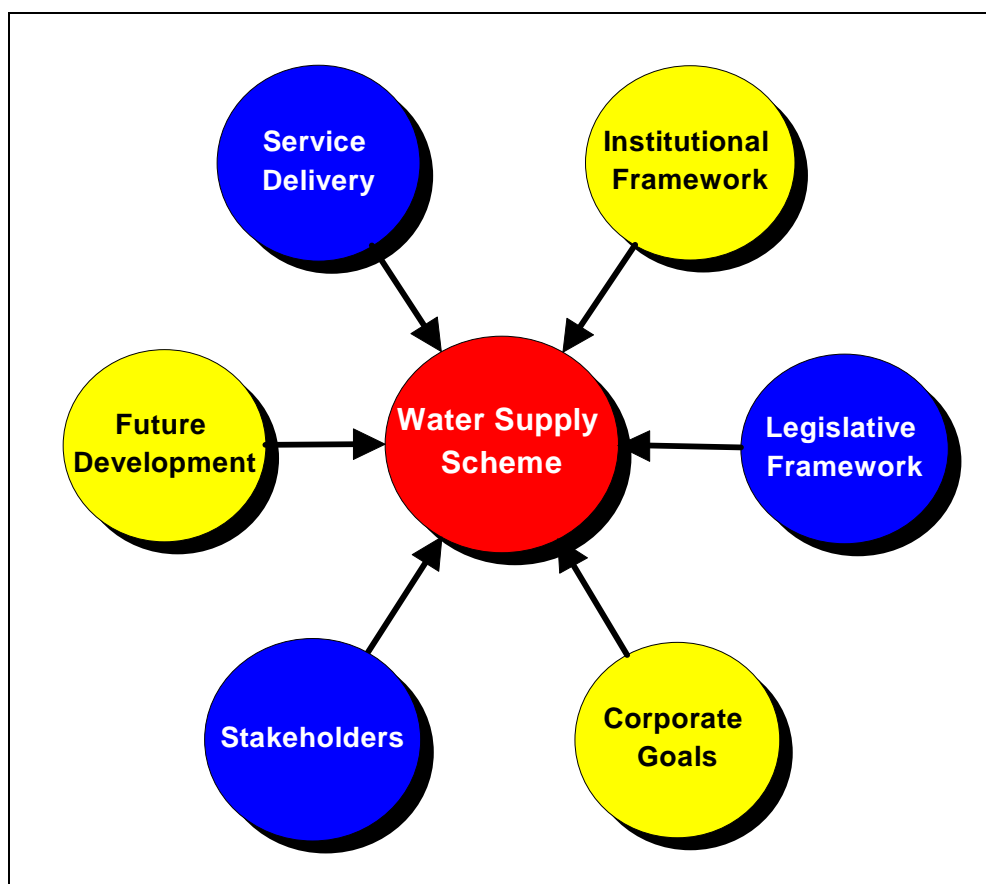
| Case   | Main Input Parameters  | Projected Annual Typical Residential Bill (in 2009/10 \$)  | Remarks  |
|--|--|--|--|
| <b>Scenario 2 -</b><br>Low Growth and maximum dividend | <ul style="list-style-type: none"> <li>- Dividend of \$112 K/year from 2010/11 onwards</li> <li>- All other inputs as in Scenario 1</li> </ul> | <ul style="list-style-type: none"> <li>- TRB from 2011/12 onwards for next 29 years - \$ 435 p.a.</li> <li>TRB to be increased by \$27 in 2011/12</li> </ul> | No new borrowings required and all planned capital works will be funded from available cash reserves |





# Operating Environment Review

The delivery of water supply 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 water 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 Council should 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

Gunnedah Shire Council is surrounded by Liverpool Plains, Narrabri, Tamworth Regional and Warrumbungle Councils. While any future amalgamation remains a possibility as a result of ongoing NOW Water Reforms Inquiry, Council is not in favour of amalgamation with any of the surrounding Councils. However, Council has formed a strategic alliance with the neighbouring Liverpool Plains Council and shares resources and experience for mutual benefits.

**County Council:** 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.

Amalgamating the water supply and/or sewerage operations in the region are not expected to provide any operational or management advantage to the Shire community. Hence, council does not favour this arrangement.

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

#### Advantages

- Prices reflect costs
- User pays reduces consumption

#### Disadvantages

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

Council favours this option as it is already running the water supply and sewerage services on a commercial basis. This arrangement is believed to be able to reflect the true cost to customers, be more efficient and provide better service choices. However, there is some concern that this might lead to some valuable services, which may seem uneconomic on a commercial basis, being abandoned. Council aims to achieve commercial viability of water supply and sewerage businesses in accordance with NOW 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 sees no additional benefits to customers in organisations the water supply and sewerage operations and hence is not in favour of this arrangement.

**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 will be put before quality
- Not in for the long haul

Council views that retention of asset ownership by Council is very important for an integrated environmental and land use planning. Also Council considers the size of the water supply and sewerage schemes will not aid this approach and hence is not favoured.

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

| Option             | Ranking |
|--------------------|---------|
| Amalgamation       | 0       |
| County Council     | -1      |
| Strategic Alliance | +1      |
| Commercialisation  | +1      |
| Corporatisation    | -1      |
| Privatisation      | -1      |

Council would like to continue with the current commercialisation model in conjunction to the strategic alliance arrangement with the Liverpool Plains Council for sharing of resources and experiences. 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 water supply 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 water supply 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.

## Service Provision

Council's future growth projections indicate that currently available capacity is sufficient to meet any likely demand for water supply services for the next 30-years

The water supply system however will need to be maintained to cope with ageing assets and increasing usage. Council plans to extend potable water supply services to new subdivisions in the periphery of existing service areas and included in the designated service areas. Council is currently not planning to extend water supply services to the unserved villages in the near future.

Council's response to the forecast of likely future demands and changes to service provision are summarised in the table next page.

| Changes   | Council Actions   |
|---|---|
| <p><i>Customer Growth Rate</i></p> <p>Current growth rate is expected to be sustained</p>   | <ul style="list-style-type: none"> <li>- Available capacity sufficient to meet future demand</li> </ul>   |
| <p><i>Commercial and Industrial Growth</i></p> <p>Active promotion of development potential by Council will increase business growth.</p> | <ul style="list-style-type: none"> <li>- Identify and develop new commercial and industrial areas</li> <li>- Extend services to new commercial and industrial areas</li> </ul>                    |
| <p><i>Environmental Changes</i></p> <p>Greater focus on climate change issues</p>   | <ul style="list-style-type: none"> <li>- Maintain the focus on water security and environmental issues in line with community expectations</li> </ul>   |
| <p><i>Service Culture</i></p> <p>Council obligations to customers</p>   | <ul style="list-style-type: none"> <li>- Continuously improve services and meet customer expectations</li> </ul>  |
| <p><i>Technology Changes</i></p> <p>Technological advancements in water supply and sewerage operations and service management</p>         | <ul style="list-style-type: none"> <li>- Take advantage of new technologies such as telemetry, low cost water supply and sewerage schemes</li> <li>- Focus on efficiency of operations</li> </ul> |
| <p><i>Tourism Growth</i></p> <p>Current tourism growth trend is expected to be sustained</p>  | <ul style="list-style-type: none"> <li>- Tourism growth plans</li> <li>- More amenities and facilities for tourists</li> </ul>  |
| <p><i>Government Policy</i></p> <p>Ongoing changes</p>  | <ul style="list-style-type: none"> <li>- Keep abreast of changes in Government policies and Acts</li> </ul>   |

## Corporate Policies and Practices

Gunnedah Shire Council currently has the following corporate policies and practices that have an impact on the operation of the water supply scheme.

| Corporate Policies and Practices  | Impacts   |
|---|---|
| Provide services to cover infill and new release areas within designated service area | <ul style="list-style-type: none"> <li>- Economic systems fully organized</li> <li>- Available capacity</li> <li>- Continued development</li> </ul> |
| Support OH&S and EEO principles   | <ul style="list-style-type: none"> <li>- Socially responsible</li> </ul>  |
| Best Practice Management  | <ul style="list-style-type: none"> <li>- Compliance</li> <li>- Sustainable services</li> </ul>  |
| Water Services connection policy (Private water lines)                                | <ul style="list-style-type: none"> <li>- Service provided at cost for properties up to 1 Km from the mains for supply up to 1000 Kl/year</li> </ul> |
| Rainwater tanks   | <ul style="list-style-type: none"> <li>- Demand management</li> <li>- BASIX requirement for new developments</li> </ul>                             |
| Water saving devices (rebates)  | <ul style="list-style-type: none"> <li>- Encouraging to be water-wise</li> <li>- Demand management</li> </ul>                                       |
| Backflow prevention policy  | <ul style="list-style-type: none"> <li>- Protection of quality of water supply</li> </ul>   |
| Developer contribution for water assets and infrastructure                            | <ul style="list-style-type: none"> <li>- Equitable distribution of infrastructure costs</li> </ul>  |

## 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 Gunnedah Shire Council's future service delivery is minimal. Classed as a Category 2 business, the operation of the water supply branch is not seen as a distortion on competition at a state or national level. The separation of Council's water supply business from other activities is at the discretion of Council. The requirement of full cost attribution for water supply service is already in place.

At Gunnedah Shire Council, the General Manager delegates authority to the Director Infrastructure Services (DIS) to manage all the water supply and sewerage services. The DIS in turn has entrusted the responsibility of the schemes' operation, maintenance and performance with Water Services Engineer (WSE).

Gunnedah Shire Council's water and sewer section has a total of 17 staff, who together operate and maintain the water supply and sewerage schemes. The staff also take-up private works as part of their Council duties which is a revenue generating activity.

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

### **Full Service Contract**

#### Advantages

- There is the possibility that the operation of the water supply 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 water supply 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 prefers to keep the majority of the work in-house. Council thinks that full service contract could be an option of last resort if skilled and trained staff become unavailable and other service delivery options become unviable.

### **Part Service Contract**

#### Advantages

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

#### Disadvantages

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

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

- Water and effluent quality testing and calibration;
- Operator training;
- Telemetry upgrade;
- CCTV
- Pipe relining
- Mechanical/ electrical 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/or by tendered contract).

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

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

#### Advantages

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

#### Disadvantages

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

Council considers that this option has very little to offer given the unforeseeable need for any major assets/schemes, hence considers irrelevant.



## Resource/Service Sharing

### Advantages

- There would be a reduction in the number of resources required by Council as these would be shared with the other organizations.
- By sharing the resources associated with the provision of the sewerage services with other organizations 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 organizations is hard to get.

This option is part of operationalising the Strategic Alliance discussed under the institutional arrangement options. Currently a service sharing arrangement is in place with Liverpool Plains Council. Council remains open to other potential opportunities for resource sharing with surrounding Councils in future if it holds advantages to Council.

### **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  | -1      |
| Part-Service Contract  | +1      |
| BOOT                   | -1      |
| Resource/Service Share | +1      |

As seen from the discussions above, Council believes that under the current operating environment only the part service contract and resource/service sharing options will hold any real advantages to them.

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

Council will continually monitor and review the situation with a view to assess the need for considering other options to improve the efficiency and effectiveness of the service delivery.



# 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   |
| DECCW           | Department of Environment, Climate Change and Water  |
| DLG             | Division of Local Government   |
| DSTA            | Department of Services, Technology and Administration (previously Department of Commerce, DoC)                             |
| EEO             | Equal employment opportunity   |
| EIS             | Environmental impact statement   |
| EP              | Equivalent population  |
| EPA             | Environment Protection Authority   |
| ET              | Equivalent tenements   |
| LEP             | Local environment plan   |
| NFR             | Non-filterable residue (also refers to as suspended solids), a measure of fine particle pollutants in wastewater           |
| NH&MRC/<br>AWRC | National Health and Medical Research Council / Australian Water Research Council   |
| NOW             | NSW Office of Water ( previously Department of Water and Energy, DWE)  |
| NSWPW           | NSW Public Works   |
| NWI             | National Water Initiative  |
| 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 Water Supply Services

### Legislative Framework

Gunnedah Shire Council delivers potable water supply to Gunnedah, Curlewis, Mullaley and Tambar Springs 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   |
|---|--|
| <b>1. Pricing</b>   |  |
| Local Government Act 1993<br>Esp. Sections 64 and 428   | Determining developer charges: <ul style="list-style-type: none"> <li>- provide a source of funding for infrastructure required for new urban development</li> <li>- provide signals regarding costs of urban development and encourage less costly forms</li> </ul> Need to be more accountable.<br>Need for better asset management. |
| Environmental Planning and Assessment Act 1979  | Determining developer charges.<br>Requirement for LEP and DCPs<br>Council control of service approvals.  |
| Water Management Act 2000<br>Progressively replaces the previous Water Act 1912, Water Authorities Act 1987 and 10 others including irrigation, rivers and foreshores Acts) | Determining developer charges.<br>Water rights, licences, allocations.   |
| Local Government Regulation 1993 (Savings and Transitional)   | Determining developer charges.   |

|   |  |
|---|--|
| <p>Independent Pricing and Regulatory Tribunal Act 1992</p>   | <p>Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices.</p> <p>IPART has developed a set of consistent pricing principles to be adopted by local government authorities.</p> <p>Charging guidelines.</p> <p>Trend towards a user pay system in the industry.</p> |
| <p><b>2. Environmental Protection</b></p>   |  |
| <p>Protection of the Environment Operations Act 1997</p> <p>Brings together:</p> <ul style="list-style-type: none"> <li>- Clean Air Act 1961</li> <li>- Clean Waters Act 1970</li> <li>- Pollution Control Act 1970</li> <li>- Noise Control Act 1975</li> <li>- Environmental Offences and Penalties (EOP) Act 1989</li> </ul> | <p>Regulating pollution activities and issue of licenses as well as the monitoring of and reporting on waste output.</p> <p>Council is required to be “duly diligent” in undertaking the scheme operations</p>   |
| <p>Soil Conservation Act 1938</p>   | <p>Conserves soil resources and farm water resources and the mitigation of erosion and land degradation.</p> <p>Preservation of watercourse environments.</p>  |
| <p>Environmental Planning and Assessment Act 1979</p>   | <p>Encourages the proper management of natural and man-made resources, the orderly use of land, the provision of services and protection of the environment.</p>   |
| <p>Catchment Management Act 1989</p>  | <p>Promotes the coordination of activities within catchment areas. Council believes this Act has implications for the management of river water quality and quantity.</p> <p>Requirement for ongoing management plan.</p> <p>Requirement of Capital Works Plan under Sydney Catchment Authority Regulations.</p> |
| <p>Water Management Act 2000</p>  | <p>The Act provides for sustainable and integrated management of State’s water sources.</p> <p>Water rights, licences, allocations.</p>  |



| <b>3. Health and Safety</b>                                    |   |
|--|---|
| Public Health Act 1991   | Prevention of the spread of disease.<br>Effluent disposal methods.<br>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.<br><br>Likely be cost implications<br><br>Impacts all operations.<br><br>Note public safety – insurance. |

### **Local Government Act 1993**

Council delivers water supply services to its residents via authority delegated under the Local Government Act 1993. The Minister for Water administers the parts of this Act dealing with water supply.

The Act confers service functions on councils. These include the provision, management and operation of water supply 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 water supply are:

- Section 60 – Councils must receive approval from the Minister for Water for the construction or augmentation of, or any operational changes to water treatment plants, dams, and wastewater infrastructure
- Section 64 – Developer charges. (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
- 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 for Water. 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 Water.

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 Water.

## **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 water supply and sewerage works where the Director-General deems it necessary in the interest of public health. The Director-General may report to the Minister for Water 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 DECCW 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 Water.

### **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 Water, 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 Water.

### **Independent Pricing and Regulatory Tribunal Act 1992**

The Independent Pricing and Regulatory Tribunal (IPART) were 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*, setting 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 Work Cover 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

|                                      |  |
|--------------------------------------|--|
| <b>Efficient Operation</b>           | The Department of Local Government is concerned that councils generally are well managed.  |
| <b>Federal Government</b>            | 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 (e.g. amalgamation of authorities).  |
| <b>Competition Policy</b>            | <p>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 to have councils “<i>operate under similar competitive pressures to those experienced by the private sector</i>”.</p> <p>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 <u>NSW Government Policy Statement on the Application of National Competition Policy to Local Government</u>.)</p> |
| <b>Asset Management</b>              | 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 water supply and sewerage schemes of country towns under the care of Local Governments is well managed.   |
| <b>Financial Assistance</b>          | <p>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 Water and Energy.</p> <p>The Minister for Water 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 <u>Country Towns Water Supply and Sewerage Program: Technical and Financial Assistance</u> available to Councils.</p>                     |
| <b>Pricing and Developer Charges</b> | <p>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.</p> <p>Guidelines are issued from time to time by the Minister for Water. These guidelines, which include a methodology for calculating development contributions, were issued in February 2003.</p>                                |

**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.



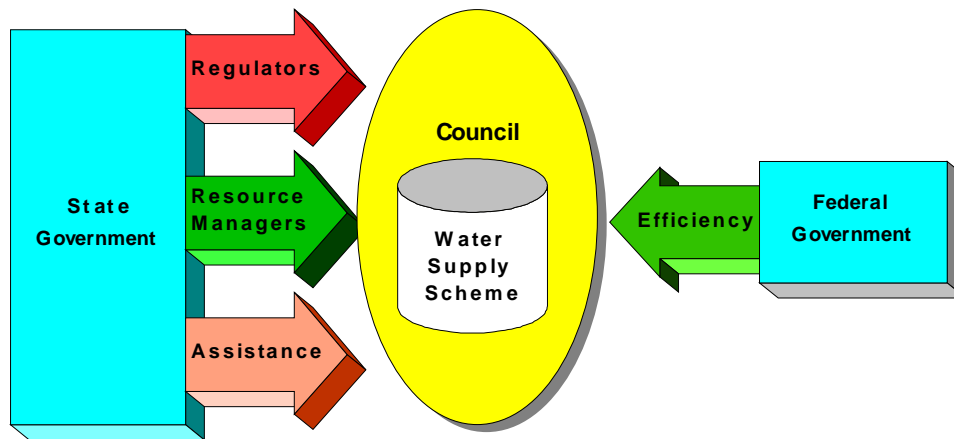
# Appendix C

## Stakeholder Review

Stakeholders are individuals and organisations with an interest and/or equity in the water supply 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 water supply schemes, as shown in the chart below.



### Local Government

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

### State Government

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

### Regulators

These are the agencies that are largely responsible for administering the various acts listed in the preceding section. Of particular significance to the water supply 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 DECCW 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 DECCW.

The NSW Office of Water, while nominally a resource manager, has a special role in the development of water supply 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 Supply and Sewerage 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 NSW Office of Water.

Other assistance is in the form of services, such as the professional services provided by the NSW Public Works.

## **Federal Government**

The Federal Government has no direct bearing on the water supply scheme. 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 water supply 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 water supply operations.



| Stakeholder  | How to judge success?  | How does Council rate its service?<br>1 – Poor<br>10 – Excellent | How do stakeholders rate the service<br>1 – Poor<br>10 – Excellent |
|--|--|--|--|
| <b>General Users</b>                                     |  |  |  |
| Property Owners/<br>Ratepayers                           | <ul style="list-style-type: none"> <li>- Rates/ value for money</li> <li>- Levels of Service</li> </ul>  | G – 10; V – 10   | G – 8; V – 6   |
| Residents/<br>Families<br>(including pensioners)         | <ul style="list-style-type: none"> <li>- Water Quality</li> <li>- Public health standards met and maintained</li> <li>- Guaranteed service</li> <li>- Reasonable cost</li> <li>- Rebates for aged care and retirement units</li> </ul> | G – 10; V – 7  | G – 10; V – 6  |
| Commercial and Industrial customers                      | <ul style="list-style-type: none"> <li>- Quality</li> <li>- Sufficient supply</li> <li>- Guaranteed service</li> <li>- Reasonable cost</li> </ul>  | G – 9; V – 8   | G – 7; V – 5   |
| <b>Other Users</b>                                       |  |  |  |
| Special Interest Groups<br>(Environmental, medical etc.) | <ul style="list-style-type: none"> <li>- Environmental responsibility</li> <li>- Maximum resource reuse</li> <li>- Environmental sustainability</li> <li>- Ability to meet their needs</li> </ul>                                      | G – 10; V – 10   | G – 10; V – 10   |
| Tourists   | <ul style="list-style-type: none"> <li>- Quality and quantity of service</li> <li>- Aesthetics</li> </ul>  | G – 10; V – 10   | G – 10; V – 7  |
| <b>Council</b>   |  |  |  |
| Councillors  | <ul style="list-style-type: none"> <li>- No complaints</li> <li>- Good public profile</li> <li>- Security of supply</li> <li>- Compliance</li> <li>- Pressure</li> <li>- Continued availability</li> <li>- Price</li> </ul>            | G – 10; V – 10   | G – 10; V – 10   |
| Council employees  | <ul style="list-style-type: none"> <li>- Recognition for work</li> <li>- Safe workplace</li> <li>- Competency/training</li> <li>- Security</li> <li>- Pride in workplace/</li> </ul>   | G – 10; V – 10   | G – 10; V – 10   |

| Stakeholder  | How to judge success?   | How does Council rate its service?<br>1 – Poor<br>10 – Excellent | How do stakeholders rate the service<br>1 – Poor<br>10 – Excellent |
|--|---|--|--|
|  | schemes<br>– Support  |  |  |
| Water & Sewer Services (W &S) employees  | – Efficient service<br>– Chargeable service<br>– Working relationship<br>– Timeliness<br>– Innovation and technology<br>– Informed advice | G – 10; V – 10   | G – 10; V – 10   |
| <b>Government</b>  |   |  |  |
| DLG  | – Accountability<br>– Financial stability<br>– Standard of performance  | 10   | 9  |
| NOW (previously DWE)   | – Efficient operations<br>– Performance<br>– Best practice management   | 9  | 8  |
| DECCW  | – Environmental requirements<br>– Chemicals handling<br>– Sludge disposal   | 10   | 10   |
| Others<br>(Department of Health, State Water, Work Cover, Catchment Management Authority etc.) | – Water quality<br>– OHS<br>– Catchment management  | 10   | 9  |

# Appendix D

## Performance Indicators

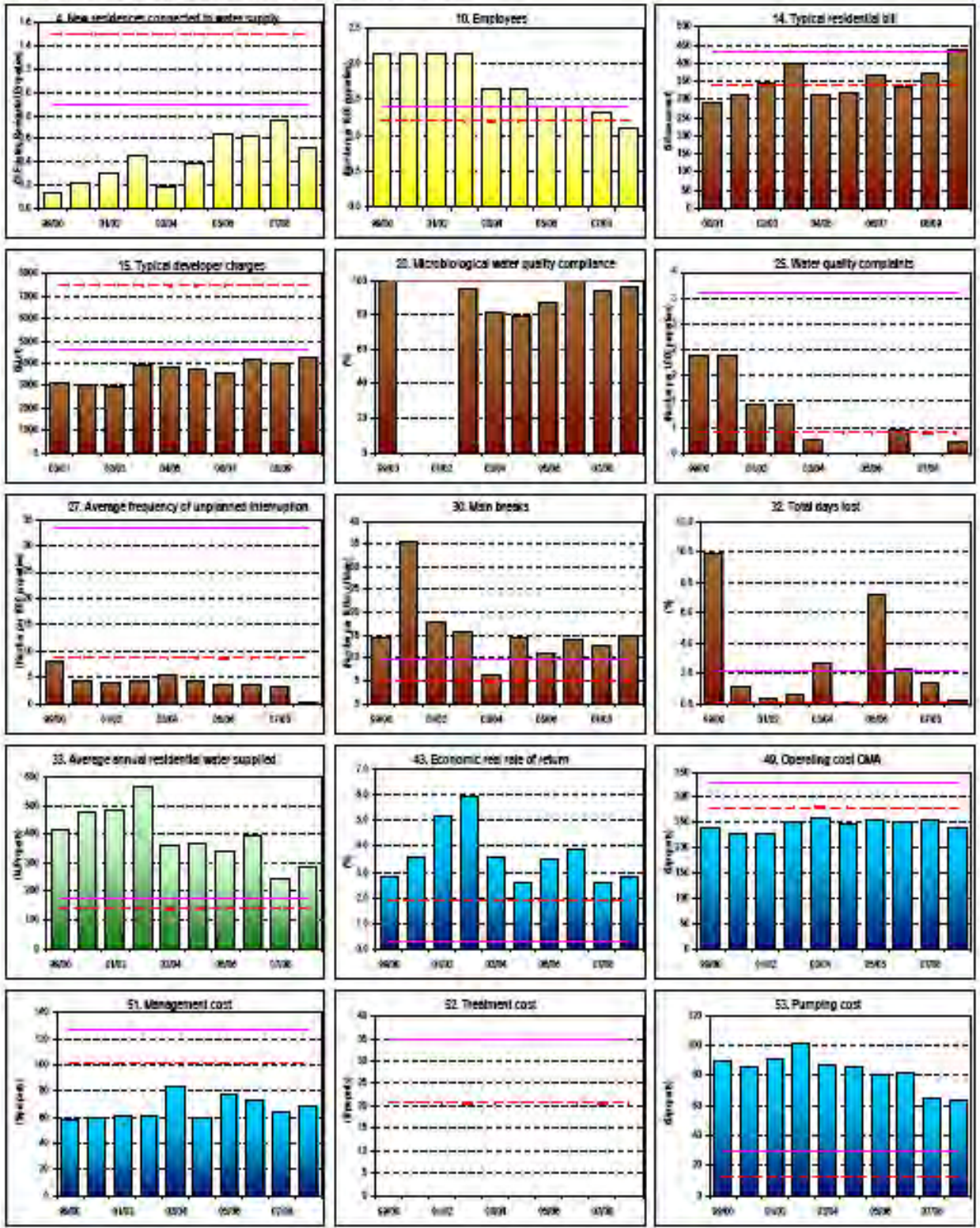
Gunnedah Shire Council has been submitting performance information about its water supply schemes to the NSW Office of Water for inclusion in its annual State-wide performance reports. This allows Council to compare its system against equivalent councils and then undertake benchmarking to identify items and methods for future improvement. A Triple Bottom Line (TBL) approach has been adopted to collate the information.

### Performance Indicators

Following comments/ observations can be made when comparing performance of Council's water supply scheme to the rest in the State:

- ☺ - Reported number of employees per 1000 properties operating the water supply schemes is below the State median.
- ☹ - Typical residential water bill has been increasing and is currently at par with the State median. This is due to adoption best practice pricing
- ☺ - Typical developer charges remained lower than the State median level for all the reporting years
- ☹ - Council has not been fully complying with microbiological water quality standards in the past. The status is expected to change with the commissioning of chlorination plants in 2009.
- ☺ - Number of supply interruptions to customers has remained well below the State's top 20% with the highest ranking for Council in the State
- ☹ - Number of main breaks remained higher than State median level for the last more than 5 years. Council has planned a mains renewal program to address the issue and hence to improve performance in future
- ☺ - Council's average annual residential water consumption has been well above the State median level but is showing a decreasing trend
- ☺ - Council ranks highest in the State in terms of positive economic real rate of return for all the reported years
- ☺ - Reported costs for treatment, pumping, operation, maintenance and management of Council's water supply schemes has been well below the State median for all the reported years. This is due to sourcing groundwater for supply, which involves mainly pumping costs.

(Results shown for 10 years together with 2008-09 Statewide Median and Top 20%)



NOTES:

1. Costs are in Jan 2008\$.
2. Microbiological water quality compliance 1999-03 to 2003-04 was on the basis of 1996 NHMRC/ARMDANZ Australian Drinking Water Guidelines for E. coli, from 2004-05 compliance was on the basis of the 2004 NHMRC/NRMCO Australian Drinking Water Guidelines.

**LEGEND**  
 2008-09 State Median (solid pink line)  
 2008-09 Top 20% (dashed red line)

# Appendix E

## Financial Input Data

Details of input data for Council's 30-year financial model for water fund are presented in the following pages.

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

## Historical Operating Statement

FINMOD  
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COMMERCE

|   | 2007/08*    | 2008/09*    |
|---|-------------|-------------|
| <b>EXPENSES</b>   |             |             |
| Management Expenses                                     | 283         | 311         |
| Administration  | 117         | 135         |
| Engineering and Supervision                             | 166         | 176         |
| Operation and Maintenance Expenses                      | 821         | 774         |
| Operation Expenses                                      |             |             |
| Maintenance Expenses                                    | 659         | 610         |
| Energy Costs  | 162         | 164         |
| Chemical Costs  |             |             |
| Purchase of Water                                       |             |             |
| Depreciation  | 438         | 656         |
| System Assets   | 427         | 643         |
| Plant & Equipment                                       | 11          | 13          |
| Interest Expenses                                       | 5           | 1           |
| Other Expenses  | 55          | 64          |
| <b>TOTAL EXPENSES</b>                                   | <b>1602</b> | <b>1806</b> |
| <b>REVENUES</b>   |             |             |
| Rates & Service Availability Charges                    | 620         | 678         |
| Residential   | 620         | 678         |
| Non-Residential   |             |             |
| User Charges  | 1456        | 1636        |
| Sales of Water : Residential                            | 1129        | 1273        |
| Sales of Water : Non-Residential                        | 327         | 363         |
| Extra Charges   |             | 24          |
| Interest Income   | -76         | 20          |
| Other Revenues  | 6           |             |
| Grants  | 53          | 43          |
| Grants for Acquisition of Assets                        |             |             |
| Pensioner Rebate Subsidy                                | 53          | 43          |
| Other Grants  |             |             |
| Contributions   | 210         | 261         |
| Developer Charges                                       | 159         | 235         |
| Developer Provided Assets                               |             |             |
| Other Contributions                                     | 51          | 26          |
| <b>TOTAL REVENUES</b>                                   | <b>2269</b> | <b>2662</b> |
| <b>OPERATING RESULT</b>                                 | <b>667</b>  | <b>856</b>  |
| <b>OPERATING RESULT (less Grants for Acq of Assets)</b> | <b>667</b>  | <b>856</b>  |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

## Historical Statement of Financial Position

FINMOD  
DEPARTMENT OF  
COMMERCE

|                                   | 2007/08* | 2008/09* |
|-----------------------------------|----------|----------|
| Cash and Investments              |          | 4237     |
| Receivables                       |          | 545      |
| Inventories                       |          | 216      |
| <br>                              |          |          |
| Property, Plant & Equipment       | 0        | 31698    |
| System Assets (1)                 |          | 31283    |
| Plant & Equipment                 |          | 415      |
| <br>                              |          |          |
| Other Assets                      |          |          |
| <br>                              |          |          |
| TOTAL ASSETS                      | 0        | 36696    |
| <br>                              |          |          |
| <b>LIABILITIES</b>                |          |          |
| Bank Overdraft                    |          |          |
| Creditors                         |          | 3        |
| Borrowings                        |          |          |
| Provisions                        |          |          |
| <br>                              |          |          |
| TOTAL LIABILITIES                 | 0        | 3        |
| <br>                              |          |          |
| NET ASSETS COMMITTED              | 0        | 36693    |
| <br>                              |          |          |
| <b>EQUITY</b>                     |          |          |
| Accumulated Operating Result      |          | 21108    |
| Asset Revaluation Reserve         |          | 15585    |
| <br>                              |          |          |
| TOTAL EQUITY                      | 0        | 36693    |
| <br>                              |          |          |
| <b>(1) Notes to System Assets</b> |          |          |
| Current Replacement Cost          |          | 50283    |
| Less: Accumulated Depreciation    | 0        | 19000    |
| Written Down Current Cost         |          | 31283    |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

**FINMOD**  
DEPARTMENT OF  
COMMERCE

## Base Forecast Data

|  | 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 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Financial Data</b>  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 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    |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 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    |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Number of Assessments</b>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Growth Rate (%)  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Residential Assessments  | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    |
| Non-Residential Assessments  | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    |
| Total Assessments  | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.19    | 0.19    | 0.22    | 0.22    | 0.22    | 0.22    | 0.22    | 0.22    | 0.22    | 0.22    | 0.21    | 0.21    | 0.21    | 0.21    | 0.21    | 0.21    | 0.21    | 0.21    | 0.21    | 0.21    |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Number of New Assessments</b>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Residential  | 7       | 7       | 7       | 7       | 7       | 7       | 7       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 8       |
| Non-Residential  | 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       |
| Total New Assessments  | 8       | 8       | 8       | 8       | 8       | 8       | 8       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       | 9       |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Projected Number of Assessments</b>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Residential  | 3712    | 3719    | 3726    | 3733    | 3740    | 3747    | 3754    | 3762    | 3770    | 3778    | 3786    | 3794    | 3802    | 3810    | 3818    | 3826    | 3834    | 3842    | 3850    | 3858    | 3866    | 3874    | 3882    | 3890    | 3898    |
| Non-Residential  | 360     | 361     | 362     | 363     | 364     | 365     | 366     | 367     | 368     | 369     | 370     | 371     | 372     | 373     | 374     | 375     | 376     | 377     | 378     | 379     | 380     | 381     | 382     | 383     | 384     |
| Total Projected Assessments  | 4072    | 4080    | 4088    | 4096    | 4104    | 4112    | 4120    | 4129    | 4138    | 4147    | 4156    | 4165    | 4174    | 4183    | 4192    | 4201    | 4210    | 4219    | 4228    | 4237    | 4246    | 4255    | 4264    | 4273    | 4282    |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Backlog Assessments</b>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 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       |
| 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       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Developer Charges / Vacant Assessments (Values in 2009/10 \$)</b>           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Developer Charges \$/Assessment</b>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Residential  | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    |
| Non-Residential  | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Number of Vacant Residential Assessments                                       | 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      |
| Average Charge of Vacant Assessments   | 35      | 30      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      | 25      |
| % 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       |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Depreciation of Existing Plant and Equipment (Values in 2009/10 \$'000)</b> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Current Replacement Cost of System Assets                                      | 51791   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Override   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Written Down Current Cost of System Assets                                     | 32221   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Override   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Annual Depreciation of Existing System Assets                                  | 662     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Override   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <br>   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Written Down Value of Plant and Equipment                                      | 415     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Override   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Annual Depreciation of Existing Plant and Equipment                            | 35      | 35      | 35      | 35      | 35      | 35      | 35      | 35      | 35      | 35      | 35      | 30      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |



# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

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## Base Forecast Data

|   | 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     |   |
|---|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|-------------|------------|------------|-------------|------------|------------|-------------|-------------|------------|------------|------------|-------------|------------|------------|------------|-------------|---|
| <b><u>Existing Loan Payments (Values in Inflated \$'000)</u></b>                          |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |   |
| Existing Loan Payments : Principal (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           | 0 |
| Existing Loan Payments : Interest (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           | 0 |
| <b><u>Capital Works Program (Values in 2009/10 \$'000)</u></b>                            |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |   |
| Subsidised Scheme (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           | 0 |
| Other New System Assets (Total:4510)  | 250        | 130        | 80         | 250        | 1500        | 600         | 100        | 0          | 0          | 1500        | 0          | 100        | 0           | 0          | 0          | 0           | 0           | 0          | 0          | 0          | 0           | 0          | 0          | 0          | 0           | 0 |
| Renewals (Total:19442)  | 577        | 275        | 260        | 460        | 410         | 610         | 560        | 410        | 410        | 410         | 410        | 510        | 1960        | 660        | 410        | 1960        | 1070        | 410        | 510        | 610        | 1410        | 810        | 410        | 410        | 1010        |   |
| <b>Total Capital Works (Total:23952)</b>  | <b>827</b> | <b>405</b> | <b>340</b> | <b>710</b> | <b>1910</b> | <b>1210</b> | <b>660</b> | <b>410</b> | <b>410</b> | <b>1910</b> | <b>410</b> | <b>610</b> | <b>1960</b> | <b>660</b> | <b>410</b> | <b>1960</b> | <b>1070</b> | <b>410</b> | <b>510</b> | <b>610</b> | <b>1410</b> | <b>810</b> | <b>410</b> | <b>410</b> | <b>1010</b> |   |
| Grant For Acquisition of Assets (% of Subsidised Scheme)                                  | 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        |   |
| Grant For Acquisition of 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           | 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           | 0 |
| <b><u>Plant and Equipment Expenditure / Asset Disposal (Values in 2009/10 \$'000)</u></b> |            |            |            |            |             |             |            |            |            |             |            |            |             |            |            |             |             |            |            |            |             |            |            |            |             |   |
| 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           | 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           | 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           | 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           | 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           | 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           | 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           | 0 |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

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## Revised/Additional Forecast Data

|   | 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 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>OMA / Revenue Overrides (Values in 2009/10 \$'000)</b>     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Administration  | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     | 139     |
| Override  | 181     | 270     | 217     | 198     | 200     | 220     | 202     | 203     | 204     | 205     | 226     | 207     | 208     | 209     | 210     | 231     | 212     | 213     | 215     | 216     | 237     | 218     | 219     | 220     | 221     |
| Engineering and Supervision                                   | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     | 182     |
| Override  | 183     | 190     | 217     | 219     | 221     | 223     | 224     | 225     | 226     | 227     | 228     | 229     | 230     | 232     | 233     | 234     | 235     | 236     | 237     | 238     | 240     | 241     | 242     | 243     | 244     |
| Operating 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  | 0       | 82      | 41      | 42      | 89      | 42      | 64      | 90      | 43      | 43      | 92      | 43      | 44      | 93      | 44      | 44      | 117     | 45      | 45      | 96      | 45      | 46      | 97      | 46      | 46      |
| Maintenance Expenses  | 630     | 631     | 632     | 633     | 634     | 635     | 636     | 637     | 638     | 639     | 640     | 641     | 642     | 643     | 644     | 645     | 646     | 647     | 648     | 649     | 650     | 651     | 652     | 653     | 654     |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Energy Costs  | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     | 169     |
| 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  | 12      | 15      | 15      | 16      | 16      | 16      | 16      | 16      | 16      | 16      | 16      | 16      | 16      | 16      | 17      | 17      | 17      | 17      | 17      | 17      | 17      | 17      | 17      | 17      | 17      |
| Purchase of Water   | 0       | 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  |         |         |         |         |         | 111     | 111     | 111     | 112     | 112     | 112     | 112     | 113     | 113     | 113     | 113     | 114     | 114     | 114     | 114     | 115     | 115     | 115     | 115     | 116     |
| Other Expenses  | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      | 66      |
| 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  | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     | 125     |
| 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   | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      | 27      |
| 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       |
| <b>Developer Charges Overrides (Values in 2009/10 \$'000)</b> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Calculated from Scheme Data                                   | 34      | 34      | 34      | 34      | 34      | 34      | 34      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      | 38      |
| Override  | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      | 75      |
| <b>Pensioner Rebate (Values in Inflated \$)</b>               |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 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                               | 896     | 897     | 899     | 901     | 902     | 904     | 906     | 908     | 910     | 912     | 914     | 915     | 917     | 919     | 921     | 923     | 925     | 927     | 929     | 931     | 933     | 935     | 937     | 939     | 941     |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Percentage of Pensioners (%)                                  | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   | 24.13   |         |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Pensioner Rebate  | 78      | 78      | 79      | 79      | 79      | 79      | 79      | 79      | 80      | 80      | 80      | 80      | 80      | 80      | 81      | 81      | 81      | 81      | 81      | 81      | 82      | 82      | 82      | 82      | 82      |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Pensioner Rebate Subsidy                                      | 43      | 43      | 43      | 43      | 43      | 43      | 43      | 43      | 44      | 44      | 44      | 44      | 44      | 44      | 45      | 45      | 45      | 45      | 45      | 45      | 45      | 45      | 45      | 45      | 45      |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Revenue Split (%)</b>                                      |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Residential Rates   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   | 29.41   |
| Override  | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   | 29.00   |
| Non-Residential Rates   | 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  | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    | 9.46    |
| Sales of Water: Residential                                   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   | 54.42   |
| Override  | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   | 50.59   |
| Sales of Water: Non-Residential                               | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   |
| Override  | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   | 10.41   |
| Extra Charges   | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    |
| Override  | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    | 0.54    |
| Total Non-Residential Revenue (%)                             | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   | 15.63   |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Total Residential Revenue (%)                                 | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   | 83.83   |
| Override  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 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  |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

## Revised/Additional Forecast Data

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|  | 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 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b><u>New Loan Payment Overrides (Values in Inflated \$'000)</u></b> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Standard 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       |
| Standard 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       |
| 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                                   | 0       | 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   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Total New 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       |
| Override   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 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       |
| Override   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |



# Appendix F

## Detailed Projected Financial Statements

Details of projected financial results of Council's 30-year financial model for water fund are presented in the following pages.

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

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## Operating Statement

|   | 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     |  |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| <b>EXPENSES</b>   |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |  |
| Management Expenses                                     | 364         | 460         | 434         | 416         | 421         | 443         | 425         | 428         | 429         | 431         | 454         | 436         | 438         | 441         | 443         | 465         | 447         | 449         | 452         | 454         | 477         | 459         | 461         | 463         | 465         |  |
| Administration  | 181         | 270         | 217         | 198         | 200         | 220         | 202         | 203         | 204         | 205         | 226         | 207         | 208         | 209         | 210         | 231         | 212         | 213         | 215         | 216         | 237         | 218         | 219         | 220         | 221         |  |
| Engineering and Supervision                             | 183         | 190         | 217         | 219         | 221         | 223         | 224         | 225         | 226         | 227         | 228         | 229         | 230         | 232         | 233         | 234         | 235         | 236         | 237         | 238         | 240         | 241         | 242         | 243         | 244         |  |
| Operation and Maintenance Expenses                      | 811         | 896         | 856         | 860         | 908         | 974         | 996         | 1024        | 977         | 979         | 1030        | 981         | 984         | 1034        | 988         | 988         | 1063        | 991         | 993         | 1045        | 996         | 998         | 1050        | 1001        | 1003        |  |
| Operation Expenses                                      | 0           | 82          | 41          | 42          | 89          | 42          | 64          | 90          | 43          | 43          | 92          | 43          | 44          | 93          | 44          | 44          | 117         | 45          | 45          | 96          | 45          | 46          | 97          | 46          | 46          |  |
| Maintenance Expenses                                    | 630         | 631         | 632         | 633         | 634         | 635         | 636         | 637         | 638         | 639         | 640         | 641         | 642         | 643         | 644         | 645         | 646         | 647         | 648         | 649         | 650         | 651         | 652         | 653         | 654         |  |
| Energy Costs  | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         | 169         |  |
| Chemical Costs  | 12          | 15          | 15          | 16          | 16          | 16          | 16          | 16          | 16          | 16          | 16          | 16          | 16          | 16          | 17          | 17          | 17          | 17          | 17          | 17          | 17          | 17          | 17          | 17          | 17          |  |
| Purchase of Water                                       | 0           | 0           | 0           | 0           | 0           | 111         | 111         | 111         | 112         | 112         | 112         | 112         | 113         | 113         | 113         | 113         | 114         | 114         | 114         | 114         | 115         | 115         | 115         | 115         | 116         |  |
| Depreciation  | 701         | 702         | 701         | 704         | 724         | 731         | 732         | 731         | 730         | 751         | 750         | 748         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         |  |
| System Assets   | 666         | 668         | 668         | 672         | 693         | 701         | 703         | 703         | 703         | 724         | 724         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         | 726         |  |
| Plant & Equipment                                       | 35          | 34          | 33          | 32          | 31          | 30          | 29          | 28          | 28          | 27          | 26          | 22          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |  |
| Interest 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           |  |
| Other Expenses  | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          | 66          |  |
| <b>TOTAL EXPENSES</b>                                   | <b>1942</b> | <b>2124</b> | <b>2057</b> | <b>2046</b> | <b>2119</b> | <b>2215</b> | <b>2219</b> | <b>2249</b> | <b>2203</b> | <b>2228</b> | <b>2300</b> | <b>2231</b> | <b>2214</b> | <b>2267</b> | <b>2223</b> | <b>2245</b> | <b>2302</b> | <b>2232</b> | <b>2237</b> | <b>2291</b> | <b>2265</b> | <b>2249</b> | <b>2303</b> | <b>2256</b> | <b>2259</b> |  |
| <b>REVENUES</b>   |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |  |
| Rates & Service Availability Charges                    | 692         | 694         | 697         | 699         | 701         | 751         | 754         | 757         | 760         | 763         | 765         | 766         | 769         | 772         | 774         | 777         | 779         | 782         | 784         | 786         | 788         | 791         | 793         | 796         | 797         |  |
| Residential   | 522         | 523         | 525         | 527         | 529         | 567         | 569         | 571         | 573         | 576         | 577         | 578         | 580         | 582         | 584         | 586         | 588         | 589         | 592         | 593         | 595         | 596         | 598         | 600         | 601         |  |
| Non-Residential   | 170         | 171         | 172         | 172         | 172         | 185         | 185         | 186         | 187         | 188         | 188         | 189         | 189         | 190         | 190         | 191         | 191         | 192         | 193         | 193         | 194         | 195         | 195         | 196         | 196         |  |
| User Charges  | 1097        | 1100        | 1106        | 1108        | 1112        | 1194        | 1196        | 1201        | 1204        | 1209        | 1214        | 1217        | 1220        | 1225        | 1229        | 1233        | 1235        | 1239        | 1244        | 1248        | 1251        | 1253        | 1259        | 1262        | 1264        |  |
| Sales of Water : Residential                            | 910         | 913         | 917         | 919         | 922         | 990         | 992         | 996         | 999         | 1003        | 1008        | 1009        | 1012        | 1016        | 1019        | 1022        | 1024        | 1027        | 1032        | 1035        | 1038        | 1039        | 1044        | 1047        | 1048        |  |
| Sales of Water : Non-Residential                        | 187         | 187         | 189         | 189         | 190         | 204         | 204         | 205         | 205         | 206         | 207         | 207         | 208         | 209         | 210         | 211         | 211         | 212         | 212         | 213         | 214         | 214         | 215         | 215         | 216         |  |
| Extra Charges   | 10          | 10          | 9           | 10          | 10          | 10          | 11          | 11          | 11          | 11          | 10          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          | 11          |  |
| Interest Income   | 232         | 242         | 255         | 261         | 223         | 179         | 167         | 172         | 183         | 153         | 138         | 142         | 107         | 91          | 98          | 64          | 41          | 45          | 52          | 54          | 34          | 28          | 34          | 43          | 35          |  |
| Other Revenues  | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         | 125         |  |
| Grants  | 43          | 42          | 41          | 39          | 38          | 37          | 36          | 35          | 35          | 34          | 33          | 32          | 31          | 30          | 30          | 29          | 28          | 27          | 26          | 26          | 25          | 24          | 23          | 23          | 22          |  |
| Grants for Acquisition 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           |  |
| Pensioner Rebate Subsidy                                | 43          | 42          | 41          | 39          | 38          | 37          | 36          | 35          | 35          | 34          | 33          | 32          | 31          | 30          | 30          | 29          | 28          | 27          | 26          | 26          | 25          | 24          | 23          | 23          | 22          |  |
| 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   | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          |  |
| Developer Charges                                       | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          | 75          |  |
| 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           |  |
| <b>TOTAL REVENUES</b>                                   | <b>2274</b> | <b>2287</b> | <b>2307</b> | <b>2318</b> | <b>2284</b> | <b>2372</b> | <b>2364</b> | <b>2376</b> | <b>2393</b> | <b>2370</b> | <b>2361</b> | <b>2368</b> | <b>2338</b> | <b>2329</b> | <b>2341</b> | <b>2314</b> | <b>2294</b> | <b>2305</b> | <b>2318</b> | <b>2325</b> | <b>2309</b> | <b>2308</b> | <b>2321</b> | <b>2335</b> | <b>2330</b> |  |
| <b>OPERATING RESULT</b>                                 | <b>332</b>  | <b>163</b>  | <b>251</b>  | <b>272</b>  | <b>165</b>  | <b>157</b>  | <b>145</b>  | <b>127</b>  | <b>189</b>  | <b>142</b>  | <b>61</b>   | <b>137</b>  | <b>123</b>  | <b>62</b>   | <b>118</b>  | <b>69</b>   | <b>-8</b>   | <b>73</b>   | <b>82</b>   | <b>34</b>   | <b>45</b>   | <b>59</b>   | <b>18</b>   | <b>79</b>   | <b>70</b>   |  |
| <b>OPERATING RESULT (less Grants for Acq of Assets)</b> | <b>332</b>  | <b>163</b>  | <b>251</b>  | <b>272</b>  | <b>165</b>  | <b>157</b>  | <b>145</b>  | <b>127</b>  | <b>189</b>  | <b>142</b>  | <b>61</b>   | <b>137</b>  | <b>123</b>  | <b>62</b>   | <b>118</b>  | <b>69</b>   | <b>-8</b>   | <b>73</b>   | <b>82</b>   | <b>34</b>   | <b>45</b>   | <b>59</b>   | <b>18</b>   | <b>79</b>   | <b>70</b>   |  |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

## Cashflow Statement

**FINMOD**  
DEPARTMENT OF  
COMMERCE

|   | 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      |
|---|-------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|--------------|
| <b>Cashflow From Operating Activities</b> |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| <b>Receipts</b>                           |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| Rates and Charges                         | 1799        | 1804        | 1812        | 1817        | 1823         | 1956         | 1961        | 1968        | 1975        | 1983         | 1990        | 1994        | 2000         | 2008        | 2014        | 2021         | 2025         | 2032        | 2039        | 2045        | 2051         | 2055        | 2063        | 2069        | 2073         |
| Interest Income                           | 232         | 242         | 255         | 261         | 223          | 179          | 167         | 172         | 183         | 153          | 138         | 142         | 107          | 91          | 98          | 64           | 41           | 45          | 52          | 54          | 34           | 28          | 34          | 43          | 35           |
| Other Revenues                            | 125         | 125         | 125         | 125         | 125          | 125          | 125         | 125         | 125         | 125          | 125         | 125         | 125          | 125         | 125         | 125          | 125          | 125         | 125         | 125         | 125          | 125         | 125         | 125         | 125          |
| Grants                                    | 43          | 42          | 41          | 39          | 38           | 37           | 36          | 35          | 35          | 34           | 33          | 32          | 31           | 30          | 30          | 29           | 28           | 27          | 26          | 26          | 25           | 24          | 23          | 23          | 22           |
| Contributions                             | 75          | 75          | 75          | 75          | 75           | 75           | 75          | 75          | 75          | 75           | 75          | 75          | 75           | 75          | 75          | 75           | 75           | 75          | 75          | 75          | 75           | 75          | 75          | 75          | 75           |
| <b>Total Receipts from Operations</b>     | <b>2274</b> | <b>2287</b> | <b>2307</b> | <b>2318</b> | <b>2284</b>  | <b>2372</b>  | <b>2364</b> | <b>2376</b> | <b>2393</b> | <b>2370</b>  | <b>2361</b> | <b>2368</b> | <b>2338</b>  | <b>2329</b> | <b>2341</b> | <b>2314</b>  | <b>2294</b>  | <b>2305</b> | <b>2318</b> | <b>2325</b> | <b>2309</b>  | <b>2308</b> | <b>2321</b> | <b>2335</b> | <b>2330</b>  |
| <b>Payments</b>                           |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| Management                                | 364         | 460         | 434         | 416         | 421          | 443          | 425         | 428         | 429         | 431          | 454         | 436         | 438          | 441         | 443         | 465          | 447          | 449         | 452         | 454         | 477          | 459         | 461         | 463         | 465          |
| Operations (plus WC Inc)                  | 835         | 920         | 880         | 885         | 933          | 998          | 1020        | 1049        | 1003        | 1004         | 1055        | 1006        | 1009         | 1060        | 1013        | 1013         | 1089         | 1016        | 1019        | 1070        | 1022         | 1024        | 1076        | 1026        | 1028         |
| Interest 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            |
| Other Expenses                            | 66          | 66          | 66          | 66          | 66           | 66           | 66          | 66          | 66          | 66           | 66          | 66          | 66           | 66          | 66          | 66           | 66           | 66          | 66          | 66          | 66           | 66          | 66          | 66          | 66           |
| <b>Total Payments from Operations</b>     | <b>1265</b> | <b>1447</b> | <b>1380</b> | <b>1367</b> | <b>1420</b>  | <b>1508</b>  | <b>1512</b> | <b>1543</b> | <b>1498</b> | <b>1501</b>  | <b>1575</b> | <b>1508</b> | <b>1514</b>  | <b>1567</b> | <b>1522</b> | <b>1544</b>  | <b>1602</b>  | <b>1531</b> | <b>1536</b> | <b>1591</b> | <b>1564</b>  | <b>1549</b> | <b>1603</b> | <b>1555</b> | <b>1559</b>  |
| <b>Net Cash from Operations</b>           | <b>1009</b> | <b>841</b>  | <b>928</b>  | <b>951</b>  | <b>864</b>   | <b>864</b>   | <b>853</b>  | <b>833</b>  | <b>894</b>  | <b>868</b>   | <b>786</b>  | <b>860</b>  | <b>824</b>   | <b>762</b>  | <b>819</b>  | <b>770</b>   | <b>692</b>   | <b>773</b>  | <b>782</b>  | <b>735</b>  | <b>745</b>   | <b>758</b>  | <b>719</b>  | <b>780</b>  | <b>771</b>   |
| <b>Cashflow from Capital Activities</b>   |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| <b>Receipts</b>                           |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| 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            |
| <b>Payments</b>                           |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| Acquisition of Assets                     | 827         | 405         | 340         | 710         | 1909         | 1210         | 660         | 410         | 410         | 1910         | 410         | 610         | 1960         | 660         | 410         | 1960         | 1070         | 410         | 510         | 610         | 1410         | 810         | 410         | 410         | 1010         |
| <b>Net Cash from Capital Activities</b>   | <b>-827</b> | <b>-405</b> | <b>-340</b> | <b>-710</b> | <b>-1909</b> | <b>-1210</b> | <b>-660</b> | <b>-410</b> | <b>-410</b> | <b>-1910</b> | <b>-410</b> | <b>-610</b> | <b>-1960</b> | <b>-660</b> | <b>-410</b> | <b>-1960</b> | <b>-1070</b> | <b>-410</b> | <b>-510</b> | <b>-610</b> | <b>-1410</b> | <b>-810</b> | <b>-410</b> | <b>-410</b> | <b>-1010</b> |
| <b>CashFlow from Financing Activities</b> |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| <b>Receipts</b>                           |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| New Loans Required                        | 0           | 0           | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0            | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0           | 0            |
| <b>Payments</b>                           |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| Principal Loan Payments                   | 0           | 0           | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0            | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0           | 0            |
| <b>Net Cash from Financing Activities</b> | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>     | <b>0</b>     | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>     | <b>0</b>    | <b>0</b>    | <b>0</b>     | <b>0</b>    | <b>0</b>    | <b>0</b>     | <b>0</b>     | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>     | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>     |
| <b>TOTAL NET CASH</b>                     | <b>182</b>  | <b>436</b>  | <b>587</b>  | <b>241</b>  | <b>-1045</b> | <b>-346</b>  | <b>193</b>  | <b>423</b>  | <b>485</b>  | <b>-1042</b> | <b>376</b>  | <b>250</b>  | <b>-1136</b> | <b>102</b>  | <b>409</b>  | <b>-1191</b> | <b>-378</b>  | <b>363</b>  | <b>273</b>  | <b>124</b>  | <b>-665</b>  | <b>-52</b>  | <b>308</b>  | <b>370</b>  | <b>-239</b>  |
| Current Year Cash                         | 182         | 436         | 587         | 241         | -1045        | -346         | 193         | 423         | 485         | -1042        | 376         | 250         | -1136        | 102         | 409         | -1191        | -378         | 363         | 273         | 124         | -665         | -52         | 308         | 370         | -239         |
| Cash & Investments @Year Start            | 4237        | 4290        | 4589        | 5025        | 5112         | 3949         | 3498        | 3583        | 3889        | 4247         | 3112        | 3386        | 3530         | 2325        | 2356        | 2685         | 1451         | 1042        | 1364        | 1589        | 1663         | 969         | 891         | 1164        | 1490         |
| Cash & Investments @Year End              | 4419        | 4726        | 5176        | 5266        | 4067         | 3603         | 3691        | 4006        | 4374        | 3205         | 3488        | 3636        | 2395         | 2427        | 2765        | 1494         | 1073         | 1405        | 1636        | 1713        | 998          | 918         | 1199        | 1534        | 1250         |
| <b>Capital Works Funding:</b>             |             |             |             |             |              |              |             |             |             |              |             |             |              |             |             |              |              |             |             |             |              |             |             |             |              |
| Internal Funding for New Works (\$'000)   | 250         | 130         | 80          | 250         | 1500         | 600          | 100         | 0           | 0           | 1500         | 0           | 100         | 0            | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0           | 0            |
| Internal Funding for Renewals             | 577         | 275         | 260         | 460         | 410          | 610          | 560         | 410         | 410         | 410          | 410         | 510         | 1960         | 660         | 410         | 1960         | 1070         | 410         | 510         | 610         | 1410         | 810         | 410         | 410         | 1010         |
| New Loans                                 | 0           | 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                                    | 0           | 0           | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0            | 0           | 0           | 0            | 0            | 0           | 0           | 0           | 0            | 0           | 0           | 0           | 0            |
| <b>Total Capital Works</b>                | <b>827</b>  | <b>405</b>  | <b>340</b>  | <b>710</b>  | <b>1909</b>  | <b>1210</b>  | <b>660</b>  | <b>410</b>  | <b>410</b>  | <b>1910</b>  | <b>410</b>  | <b>610</b>  | <b>1960</b>  | <b>660</b>  | <b>410</b>  | <b>1960</b>  | <b>1070</b>  | <b>410</b>  | <b>510</b>  | <b>610</b>  | <b>1410</b>  | <b>810</b>  | <b>410</b>  | <b>410</b>  | <b>1010</b>  |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

## Statement of Financial Position

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|  | 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      |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Cash and Investments</b>            | 4419         | 4726         | 5176         | 5266         | 4067         | 3603         | 3691         | 4006         | 4374         | 3205         | 3488         | 3636         | 2395         | 2427         | 2765         | 1494         | 1073         | 1405         | 1636         | 1713         | 998          | 918          | 1199         | 1534         | 1250         |
| <b>Receivables</b>                     | 562          | 563          | 565          | 566          | 567          | 568          | 569          | 570          | 572          | 573          | 574          | 575          | 577          | 578          | 579          | 580          | 581          | 583          | 584          | 585          | 586          | 588          | 589          | 590          | 591          |
| <b>Inventories</b>                     | 223          | 223          | 223          | 224          | 225          | 225          | 225          | 226          | 227          | 227          | 228          | 228          | 229          | 229          | 230          | 230          | 231          | 232          | 232          | 233          | 233          | 234          | 234          | 235          | 235          |
| <b>Property, Plant &amp; Equipment</b> | 32762        | 32453        | 32082        | 32080        | 33258        | 33730        | 33653        | 33327        | 33003        | 34159        | 33818        | 33679        | 34913        | 34847        | 34531        | 35765        | 36109        | 35793        | 35577        | 35461        | 36146        | 36230        | 35914        | 35598        | 35881        |
| <b>System Assets (1)</b>               | 32382        | 32118        | 31790        | 31829        | 33045        | 33553        | 33510        | 33217        | 32924        | 34109        | 33795        | 33679        | 34913        | 34847        | 34531        | 35765        | 36109        | 35793        | 35577        | 35461        | 36146        | 36230        | 35914        | 35598        | 35881        |
| <b>Plant &amp; Equipment</b>           | 380          | 335          | 292          | 252          | 213          | 177          | 142          | 110          | 79           | 50           | 22           | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>Other Assets</b>                    | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>TOTAL ASSETS</b>                    | <b>37966</b> | <b>37966</b> | <b>38046</b> | <b>38136</b> | <b>38117</b> | <b>38126</b> | <b>38137</b> | <b>38129</b> | <b>38175</b> | <b>38164</b> | <b>38107</b> | <b>38119</b> | <b>38113</b> | <b>38082</b> | <b>38106</b> | <b>38070</b> | <b>37994</b> | <b>38012</b> | <b>38029</b> | <b>37992</b> | <b>37963</b> | <b>37969</b> | <b>37936</b> | <b>37956</b> | <b>37958</b> |
| <b>LIABILITIES</b>                     |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| <b>Bank Overdraft</b>                  | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>Creditors</b>                       | 3            | 3            | 3            | 3            | 3            | 3            | 3            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 2            | 1            |
| <b>Borrowings</b>                      | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>Provisions</b>                      | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            |
| <b>TOTAL LIABILITIES</b>               | <b>3</b>     | <b>3</b>     | <b>3</b>     | <b>3</b>     | <b>3</b>     | <b>3</b>     | <b>3</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>2</b>     | <b>1</b>     |
| <b>NET ASSETS COMMITTED</b>            | <b>37963</b> | <b>37963</b> | <b>38043</b> | <b>38133</b> | <b>38114</b> | <b>38123</b> | <b>38135</b> | <b>38127</b> | <b>38173</b> | <b>38161</b> | <b>38104</b> | <b>38116</b> | <b>38111</b> | <b>38079</b> | <b>38104</b> | <b>38068</b> | <b>37993</b> | <b>38010</b> | <b>38027</b> | <b>37990</b> | <b>37962</b> | <b>37967</b> | <b>37935</b> | <b>37955</b> | <b>37956</b> |
| <b>EQUITY</b>                          |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| <b>Accumulated Operating Result</b>    | 21440        | 20979        | 20618        | 20290        | 19864        | 19442        | 19021        | 18594        | 18242        | 17852        | 17393        | 17024        | 16651        | 16228        | 15874        | 15480        | 15021        | 14657        | 14311        | 13929        | 13568        | 13231        | 12864        | 12568        | 12273        |
| <b>Asset Revaluation Reserve</b>       | 16523        | 17494        | 18486        | 19498        | 20541        | 21656        | 22823        | 24023        | 25248        | 26499        | 27834        | 29197        | 30596        | 32089        | 33624        | 35191        | 36862        | 38600        | 40375        | 42192        | 44058        | 46016        | 48038        | 50102        | 52209        |
| <b>TOTAL EQUITY</b>                    | <b>37963</b> | <b>37963</b> | <b>38043</b> | <b>38133</b> | <b>38114</b> | <b>38123</b> | <b>38135</b> | <b>38127</b> | <b>38173</b> | <b>38161</b> | <b>38104</b> | <b>38116</b> | <b>38111</b> | <b>38079</b> | <b>38104</b> | <b>38068</b> | <b>37993</b> | <b>38010</b> | <b>38027</b> | <b>37990</b> | <b>37962</b> | <b>37967</b> | <b>37935</b> | <b>37955</b> | <b>37956</b> |
| <b>(1) Notes to System Assets</b>      |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| <b>Current Replacement Cost</b>        | 52041        | 52171        | 52251        | 52501        | 54000        | 54601        | 54700        | 54700        | 54700        | 56200        | 56200        | 56300        | 56300        | 56300        | 56299        | 56300        | 56299        | 56299        | 56299        | 56299        | 56299        | 56299        | 56299        | 56299        | 56299        |
| <b>Less: Accumulated Depreciation</b>  | 19659        | 20052        | 20461        | 20672        | 20956        | 21048        | 21190        | 21483        | 21776        | 22090        | 22405        | 22620        | 21386        | 21453        | 21769        | 20534        | 20191        | 20506        | 20723        | 20838        | 20154        | 20069        | 20385        | 20701        | 20418        |
| <b>Written Down Current Cost</b>       | 32382        | 32118        | 31790        | 31829        | 33045        | 33553        | 33510        | 33217        | 32924        | 34109        | 33795        | 33679        | 34913        | 34847        | 34531        | 35765        | 36109        | 35793        | 35577        | 35461        | 36146        | 36230        | 35914        | 35598        | 35881        |



# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

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## Performance Indicators

|                                       | 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 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Typical Residential Bills             | 408     | 408     | 408     | 408     | 408     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     | 435     |
| Average Residential Bills (2009/10\$) | 386     | 386     | 387     | 387     | 388     | 416     | 415     | 416     | 417     | 418     | 418     | 418     | 419     | 419     | 420     | 420     | 421     | 420     | 422     | 422     | 422     | 422     | 423     | 423     | 423     |
| Mgmt Cost / Assessment (2009/10\$)    | 89      | 113     | 107     | 102     | 102     | 108     | 103     | 104     | 103     | 104     | 109     | 105     | 105     | 106     | 106     | 111     | 106     | 106     | 107     | 107     | 112     | 108     | 108     | 108     | 109     |
| OMA Cost per Assessment (2009/10\$)   | 289     | 332     | 316     | 312     | 324     | 317     | 318     | 324     | 313     | 313     | 330     | 314     | 314     | 325     | 314     | 319     | 332     | 315     | 315     | 327     | 319     | 316     | 328     | 316     | 316     |
| Operating Sales Margin (%)            | 4.90    | -3.84   | -0.18   | 0.53    | -2.80   | -1.02   | -1.03   | -2.07   | 0.29    | -0.48   | -3.48   | -0.23   | 0.75    | -1.28   | 0.91    | 0.23    | -2.16   | 1.21    | 1.30    | -0.88   | 0.49    | 1.34    | -0.71   | 1.57    | 1.54    |
| Economic Real Rate of Return (%)      | 0.31    | -0.24   | -0.01   | 0.03    | -0.17   | -0.07   | -0.07   | -0.14   | 0.02    | -0.03   | -0.23   | -0.02   | 0.05    | -0.08   | 0.06    | 0.01    | -0.13   | 0.08    | 0.08    | -0.06   | 0.03    | 0.08    | -0.05   | 0.10    | 0.10    |
| Debt Service Ratio                    | 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    |
| Debt/Equity Ratio                     | 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    |
| Interest Cover                        | 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    |
| Return on capital (%)                 | 0.87    | 0.43    | 0.66    | 0.71    | 0.43    | 0.41    | 0.38    | 0.33    | 0.50    | 0.37    | 0.16    | 0.36    | 0.32    | 0.16    | 0.31    | 0.18    | -0.02   | 0.19    | 0.21    | 0.09    | 0.12    | 0.15    | 0.05    | 0.21    | 0.19    |
| Cash and Investments (2009/10\$'000)  | 4419    | 4726    | 5176    | 5266    | 4067    | 3603    | 3691    | 4006    | 4374    | 3205    | 3488    | 3636    | 2395    | 2427    | 2765    | 1494    | 1073    | 1405    | 1636    | 1713    | 998     | 918     | 1199    | 1534    | 1250    |
| Debt outstanding (2009/10\$'000)      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| Net Debt (2009/10\$'000)              | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |

# Gunnedah Water Fund Financial Model 2009-10 : Preferred Case

## Summary Report of Assumptions and Results

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|   | 2009/10 | 2013/14 | 2018/19 | 2023/24 | 2028/29 | 2033/34 | 2038/39 |
|---|---------|---------|---------|---------|---------|---------|---------|
| 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 (%)                               | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    | 0.20    |
| Developer Charges per Assessment - Residential (2009/10 \$) | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    | 4275    |
| Subsidised Scheme Capital Works (\$m)                       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Grants on Acquisition of Assets (\$m)                       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Renewals (\$m)  | 0.58    | 0.41    | 0.41    | 0.41    | 0.61    | 1.01    | 0.41    |
| Renewals (%)  | 1.11    | 0.76    | 0.73    | 0.73    | 1.08    | 1.79    | 0.73    |
| Borrowing Outstanding (\$m)                                 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Mgmt Cost / Assessment                                      | 89      | 102     | 104     | 106     | 107     | 109     | 109     |
| Debt Equity Ratio   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| OMA Cost Per Assessment                                     | 289     | 324     | 313     | 314     | 327     | 316     | 316     |
| Economic Real Rate of Return (%)                            | 0.31    | -0.17   | -0.03   | 0.06    | -0.06   | 0.10    | 0.13    |
| Return on Capital (%)                                       | 0.87    | 0.43    | 0.37    | 0.31    | 0.09    | 0.19    | 0.27    |
| Net Debt (\$m)  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Debt Service Ratio  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Average Residential Bills                                   | 386     | 388     | 418     | 420     | 422     | 423     | 425     |
| Typical Residential Bills (2009/10\$)                       | 408     | 408     | 435     | 435     | 435     | 435     | 435     |

