East Gippsland Region Water Corporation

Water Plan

For the regulatory period

July 2008 - June 2013

Contents **Page**

Table Index

Chart Index

Executive Summary

Over the 5 year period of this water plan the Corporation aims to invest $67M (including $8M gifted assets) to meet renewals, growth, service improvements and compliance requirements for water and wastewater services. The implementation of a full water treatment facility for the Mitchell River Water Supply System (MRWSS) forms the bulk of this capital investment ($38M) and will complete the project which commenced in the first regulatory period ($8.5M allocated). The MRWSS project will bring high quality treated water to the vast majority of the region's customers and meet regulatory compliance standards imposed by the Safe Drinking Water Quality Act 2003.

Capital works in the MRWSS will reduce the risk of water contamination as well as improve the security of supply to 81% of customers in the region. Capital wastewater projects totalling $9.2M over the period will be for the maintenance of the Corporation's 100% water reuse program and renewal of pump and pipeline assets.

Operating costs for the second regulatory period have also been adjusted to include the added expense associated with operating the new water treatment plants for the MRWSS, as well as the increases in business compliance and regulatory costs.

The Capital Investment and Operating costs contained in this Water Plan will lift the revenue requirement of EGW from $16.5M (2007/2008) to $23.1M (2012/2013). This will result in a corresponding increase of 7.1% (real, at as 1 July 2007 prices) for both Water and Wastewater charges for each year of the five year water plan period. The impact of this revenue requirement will increase the average residential customer bill from 18% to 47%, depending on their current wastewater charge.

The 2006/2007 Great Divide fires have contributed to the substantially abnormal capital and operating expenditure that occurred in 2006/2007, and is forecast to continue into 2007/2008. Operating costs may even extend beyond this period well after the spending on infrastructure to maintain water services to the majority of the region's customers.

The Corporation has set a target to reduce residential demand for water consumption from the current 2006/2007 average of 195 to 190 kLs in this plan. Unaccounted for water is targeted to reduce from 13% to 10% by year 5 of the plan.

This Water Plan includes changes to the tariff structure for both water and wastewater. The water tariff has been adjusted to increase weighting in the volumetric component of the water charge to send a stronger price signal to customers about their water use. A common wastewater tariff will also be progressively implemented to achieve price equity across all systems for equivalent servicing.

Particular regard will be given to customers who may experience financial difficulty as a result of price changes included in this plan. Our policy will improve communication to customers vulnerable to price increases. Customers will be contacted and given a wide range of options to assist them to meet new service costs.
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The Water Plan provides for maintenance of our current key performance service levels which remain within the best performing group of all Water Corporations.

Expenditure Forecasts

Operating Expenditure

The Water Plan includes an increase in the revenue requirement from $16.5M in 2007/8 to $23.1M in 2012/13, a $6.6M increase in the cost of operation base. The increases are as a result of treatment, power and maintenance expenditure to operate the new MRWSS ($1.7M); whilst increases in corporate, compliance and regulatory costs and demand reduction initiatives make up the balance of this increase.

Capital Expenditure

This Plan includes Capital expenditure of $67 M (including $8M gifted assets) to provide for new water treatment facilities and asset renewals for both water and wastewater infrastructure, to maintain services and meet compliance and regulatory requirements.

The implementation of a full water treatment facility for the Mitchell River Water Supply System forms the bulk of this capital investment ($38M), completing the project which commenced in the first regulatory period, where $8.5M was invested. The two new water treatment facilities with associated water treatment, storage refinements and pipeline augmentation, will bring improved water quality and enhance water security for 81% of customers in the region. The investment will also contribute significantly to minimising the risk of water contamination.

Other capital investments in the plan include water treatment renewals and augmentation to maintain supplies, and $9.2M for wastewater asset replacements and renewals for service provision and growth. $4M is also expected for wastewater investment from gifted assets.

Table 1A Summary of Capital Expenditure

		First Regulatory Period			Second Regulatory Period				
Details	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Water	2.43	3.15	14.40	11.89	26.46	14.23	3.32	1.37	2.13
Sewerage	4.20	3.15	2.81	4.93	3.13	1.13	1.13	1.95	1.29
Total Prescribed Business As Usual Capex	6.63	6.30	17.21	16.83	29.61	15.36	4.45	3.32	3.43
June 2005 Final Decision	*10.58*	*9.23*	*11.51*	*10.51*					
Gifted Assets	1.64	3.29	1.89	1.90	2.66	2.71	2.20	2.00	1.60
Total Capital Investment	8.27	9.59	19.10	18.97	32.27	18.07	6.65	5.32	5.03

Revenue Forecasts

In order to meet the planned Capital and Operating investment there is a total revenue requirement of $109.6M. Annual revenue is at $16.5M in 2007/2008 and will need to increase to $23.17 M in 2012/2013.

The revenue requirement will therefore result in a real increase of 7.1% (at as 1 July 2007 prices) for both Water and Wastewater charges, each year of the five year Water Plan. The overall impact to individual customers over the 5 years will vary according to location, with the average customer bill (both water and wastewater) expected to increase from 18% to 47% in real terms.

Table 1B Summary of Revenue Requirement

	Second Regulatory Period				
Details	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Non-tariff revenue	0.68	0.69	0.69	0.70	0.70
Tariff revenue	18.43	19.73	21.26	22.69	24.17
Total prescribed revenue	19.11	20.42	21.95	23.39	24.87
Revenue not collected	0.03	0.03	0.03	0.03	0.03
Net prescribed revenue	19.08	20.39	21.92	23.36	24.84
Revenue requirement	19.21	21.12	22.63	23.10	23.17
Non-prescribed revenue	0.23	0.24	0.25	0.26	0.27
TOTAL REVENUE	19.31	20.63	22.16	23.61	25.11

Planned Tariff Structures

The EGW Board of Directors adopted the introduction of a common wastewater charge across the region by the end of second regulatory period, as well as reinforcing the current common water tariff. Adjustments are therefore planned for both tariff structures.

The wastewater tariff will be adjusted to achieve the common wastewater charge by the final year of the Plan, whilst water tariffs have been adjusted to increase the variable component so that a greater weighting in percentage terms is placed on this in the overall charge. The increased variable charge will give customers a better price signal on water use, as the overall charge becomes more sensitive to changes in water consumption. The variable cost will be applicable to all customer groups for consistency and water price equity.

Demand Forecast

Demand for water service connections during the period 2001/2002 to 2005/2006 increased at an average annual rate of 1.47 per cent. Demand forecast in the Corporation's first water plan generally matched expectation except during more recent years where demand has exceeded target. It is expected that similar demand

growth will continue in the early period of second water plan where a rate of 1.6% is forecast gradually reducing to 1.4% in the last year of the plan. The demand forecast used in the Water Plan for the second regulatory period is consistent with the growth of households reported by the Victoria in Futures Report 2004. Demand reduction activities will have the effect of slowing the increase in overall demand by reducing the average water consumption.

Significant impact to Mitchell River water quality as a result of the 2006/2007 Great Divide fires

Before the impact of the 2006/2007 Great Divide fires, the MRWSS relied on disinfection only to treat the normally high quality water from the Mitchell River. These fires introduced a new threat to drinking water quality as the intensity of the fire in the catchment, and subsequent rainfall, caused large amounts of silt, clay and ash to be deposited into the Mitchell River.

The debris from the fires raised the turbidity of the river from its normal range of between 0.5 -2 NTU, to a high of 4,500 NTU before settling to a new elevated average of 2,500 NTU.

To maintain water supplies to EGW's largest customer base immediate capital works were commenced for treatment of the poor quality water. Future capital expenditure projects were also accelerated in an effort to provide appropriate infrastructure facilities for water treatment and secure alternative water sources were sought.

Initial tests undertaken to determine if this highly turbid water could be treated led to the construction of a specialised temporary water treatment facility to maintain supplies into the MRWSS storages. Other water sources were also investigated with subsequent drilling for ground water. Several water bores were commissioned to supplement river supplies.

The process to remove turbidity from the river water and supplementary pumping of bore water has resulted in major increases in operating costs. The temporary water treatment plant, and subsidiary water bores, is estimated to provide sufficient water to surpass demand and refill the MRWSS storages by November 2007, however, the long term affects of the bushfires are still to be realised. The natural settlement and stabilisation of the river system may take decades and water quality will continue to be affected accordingly. With each rainfall event, debris from the catchment is washed into the river, and the agitation from increased water flow causes clays and slit to become unsettled. This results in a reoccurrence of highly turbid water and recent studies forecast that the impacts are expected to continue in the long term.

The diversion of resources to maintain water supplies as a result of the fires has also impacted on key performance outcomes. 'Customer water interruptions' and 'The duration of water supply interruption' targets have not been met over this period.

This Water Plan includes the costs of carrying out the planned works for MWRSS and estimated costs involved in meeting the immediate supply needs caused by the Great Divide fires. The certainty of these cost remain largely unknown at this stage as they are dependent of the behaviour of the affected river system. A further consequence of the fires has been a loss in water revenue as a result of water restrictions. These were

put in place to conserve supplies whilst emergency works were being implemented. At the time of writing the ability to meet demand without further drawing down of storages has been met. However, water restrictions will still apply until water supplies, including bore water and treatment processes, are capable of constantly exceeding consumption demand, and storages have been filled, prior to the summer 2007/2008 demand.

Chapter 1 Introduction

1.1 Water Plan 2008-2013

East Gippsland Region Water Corporation (East Gippsland Water) presents its second Water Plan, which covers the five year period from July 2008 to June 2013. This Plan contains the detailed outcomes the Corporation seeks to deliver to meet customer service requirements and comply with legislative and regulatory obligations. It addresses the Water Industry Act 1994 Statement of Obligations and provides information on the targeted level of service standards for customers, regulators and other stakeholders.

The Water Plan also describes how East Gippsland Water (EGW) intends to deliver service outcomes through a detailed explanation of major capital and operating expenditure over the five year regulatory period.

The pricing path to achieve the Water Plan outcomes has been calculated using the building block approach; identifying the expenditure required to determine revenue, and therefore price. The proposed prices address the services prescribed in the Water Industry Regulatory Order (WIRO) and include strategies to provide appropriate signals to customers about the cost of delivering services and incentives for sustainable water use.

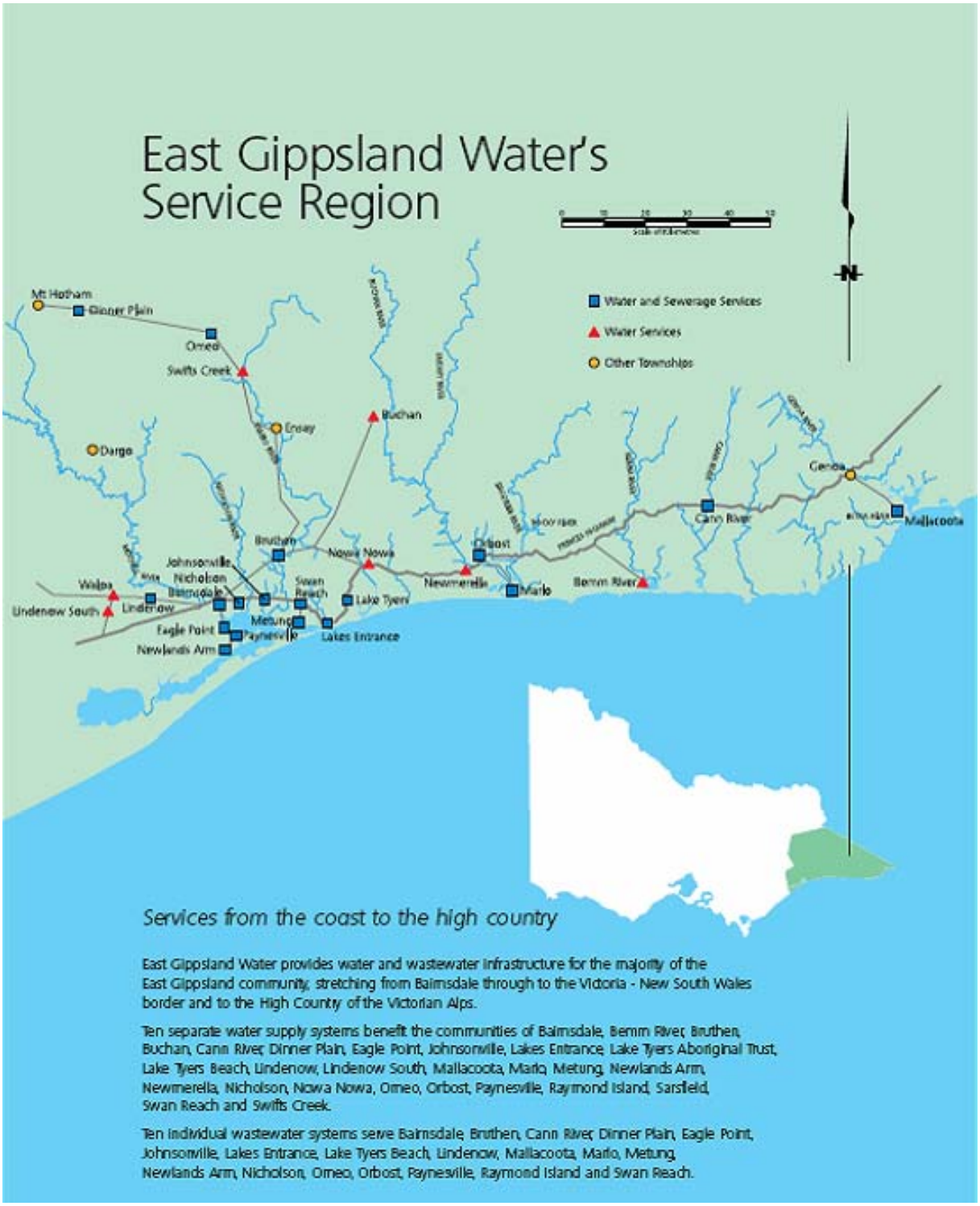
This Water Plan is provided to meet the regulatory requirements of the Water Industry Act 2004 and will become the Corporation's strategic document for the regulatory period.

1.2 Profile of East Gippsland Region Water

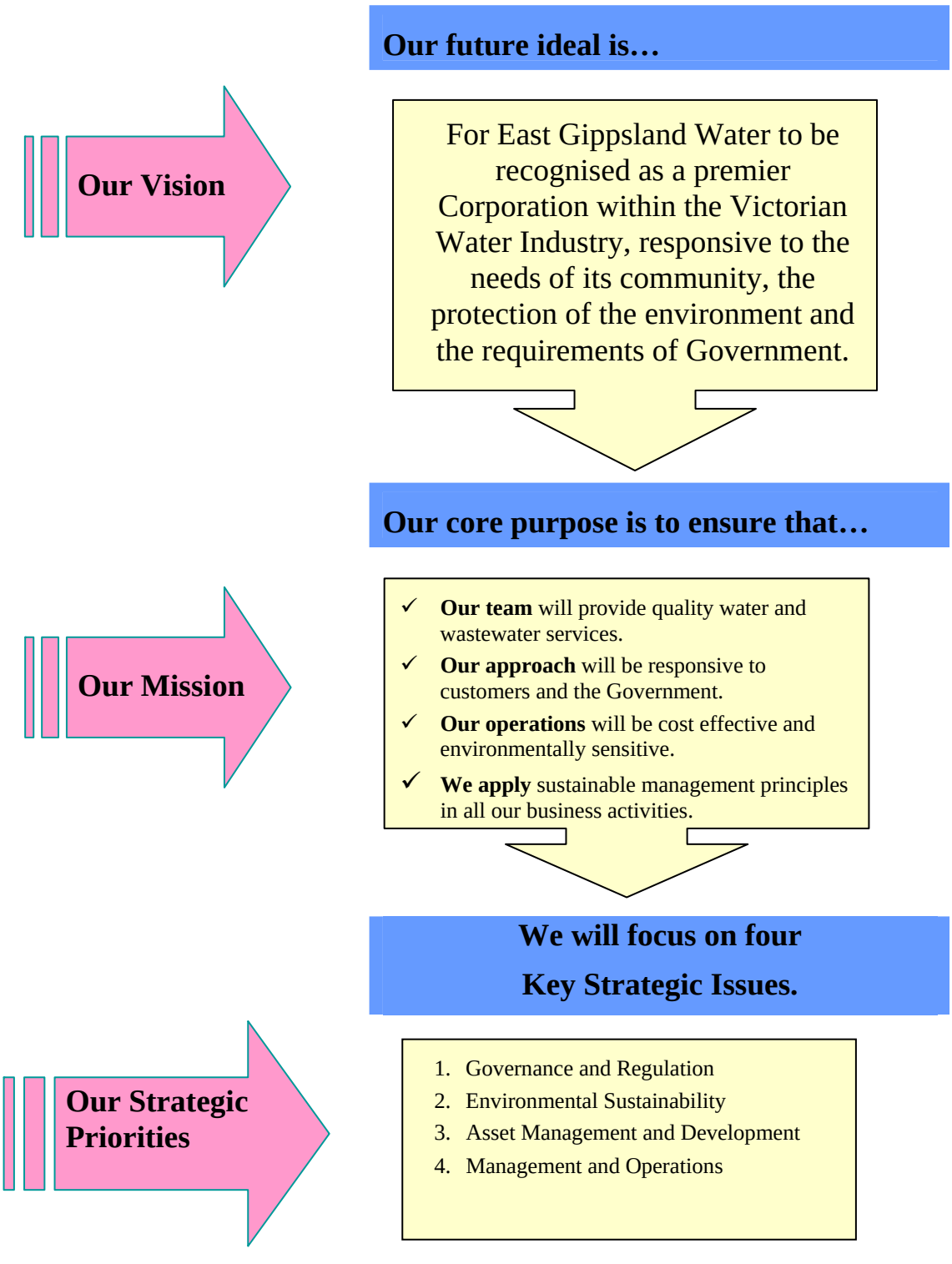
East Gippsland Water provides water and wastewater services across approximately 21,000 square kilometres of East Gippsland. The region stretches from Bairnsdale east to the Victoria/New South Wales border, and north to the High Country of the Victorian Alps. Services provided to its 20,000 customers include the supply of potable water and the collection, treatment and reuse of wastewater.

East Gippsland Facts

Significance	Details
Location	Between 280 (Bairnsdale) and 580 (Mallacoota) kilometres from Melbourne
Area	21,051 km^2
Population (2001)	37,792 people
Major Population Centres	Bairnsdale, Lakes Entrance, Orbost, Mallacoota, Paynesville, Omeo, Bruthen, Marlo, Metung and Cann River.
Key Environmental Features	Gippsland Lakes, Mallacoota Inlet, Snowy River and Mitchell River (Heritage Rivers), Lake Tyers, ,Ninety Mile Beach, National Parks, Dinner Plain
Key Industries	Tourism, Agriculture, Horticulture, Forestry, Fishing and Energy.


East Gippsland Water's Service Region
Water and Sewerage Services
Water Services
Other Townships
Mt Hotham
Dinner Plain
Omeo
Swifts Creek
Bairnsdale
Orbost
Mallacoota
Services from the coast to the high country
East Gippsland Water provides water and wastewater infrastructure for the majority of the East Gippsland community, stretching from Bairnsdale through to the Victoria - New South Wales border and to the High Country of the Victorian Alps.
Ten separate water supply systems benefit the communities of Bairnsdale, Benm River, Bruthen, Buchan, Cann River, Dinner Plain, Eagle Point, Johnsonville, Lakes Entrance, Lake Tyers Aboriginal Trust, Lake Tyers Beach, Lindenow, Lindenow South, Mallacoota, Marlo, Metung, Newlands Arm, Newmerella, Nicholson, Nowa Nowa, Omeo, Orbost, Paynesville, Raymond Island, Sarsfield, Swan Reach and Swifts Creek.
Ten individual wastewater systems serve Bairnsdale, Bruthen, Cann River, Dinner Plain, Eagle Point, Johnsonville, Lakes Entrance, Lake Tyers Beach, Lindenow, Mallacoota, Marlo, Metung, Newlands Arm, Nicholson, Omeo, Orbost, Paynesville, Raymond Island and Swan Reach.

Mission, Vision and Business Objectives



Key Strategic Issues

1. Governance and Regulation

We are committed to meeting the requirements of customers, Government and other stakeholders.

Our Business Plan Objectives for 2007/08 are:

- Governance
- Preparation & Development of the next Water Plan.

Governance

✓ Ensure that the Minister is aware of the performance and future objectives of the Corporation.

✓ Enhance Governance processes and performance to meet compliance and to mitigate risk.

Water Plan

✓ Prepare and develop the Water Plan.

✓ Improve understanding of requirements of all regulators.

✓ Develop pricing concepts and models.

2. Environmental Sustainability

We are committed to environmental sustainability in all aspects of water and wastewater service provision.

Our Business Plan Objectives for 2007/08 are:

- Sustainability
- Environmental Management System
- Influence & Participation in Catchment Management & Sustainability

Sustainability

✓ Improve wastewater treatment and maintain reuse targets.

✓ Reduce infiltration into sewer network.

✓ Continue to reduce unaccounted water.

✓ Complete water conservation plan.

✓ Complete transfer of Bulk Water Entitlements from the Tambo and Nicholson Rivers to the Mitchell River.

Environment Management System (EMS)

✓ Maintain accreditation of EMS.

✓ Continue improvement of EMS.

Influence & participation in Catchment Management & Sustainability

✓ Continue to develop role and responsibility for River Health with the Catchment Management Authority and Department of Sustainability and Environment.

✓ Develop and implement strategy to meet responsibilities identified for River Health.

✓ Participate in and continue to influence environmental protection of the Gippsland Lakes.

3. Asset Management & Asset Development

We are committed to optimising the use of existing physical assets and developing new infrastructure for the delivery of water and wastewater services and emerging requirements.

Our Business Plan Objectives for 2007/08 are:

- Asset Management and Asset Development
- Capital Expenditure.

Asset Management and Asset Development

- ✓ Continue to develop and enhance the Asset Management System.
- ✓ Monitor new asset technologies to take advantage of asset performance efficiencies.

Capital Expenditure

- ✓ Apply long term asset planning to meet and safeguard service demands.
- ✓ Identify assets and prioritise capital works for optimal resource allocation.

4. Management and Operations

We are committed to optimising the use of our human, financial and corporate resources.

Our Business Plan Objectives for 2007/08 are:

- Risk Management
- Occupational Health and Safety
- Finance and Property Billing System
- Sustainable Management.

Risk Management

- ✓ Integrate individual risk management systems.
- ✓ Develop a business continuity plan.

Occupational Health & Safety (OH&S)

- ✓ Maintain OH&S accreditation.
- ✓ Continue to improve Occupational Health & Safety performance.

Finance, Property & Billing Technology System

- ✓ Prepare for implementation of new financial system and Property and Billing System.

Sustainable Management

- ✓ Identify, develop and migrate a Sustainable Management Strategy that encompasses all of the Corporation's operations.
- ✓ Liaise with DSE to ensure consistency of approach in development of this outcome.

Staff and Assets

The Corporation has a skills-based seven member Board appointed by the Minister for Water. Its corporate management is led by a Managing Director supported by an executive team. The broader workforce is multi-skilled incorporating the disciplines of planning, administration, finance, customer services, engineering and maintenance. The design of assets and construction management are both outsourced.

EGW's asset base is valued at $171 million and includes:

- Over 1400 kilometres of mains and pipelines (water and wastewater)
- Five water treatment plants
- Twenty-one water disinfection plants
- Nine secondary wastewater treatment plants
- One tertiary wastewater treatment plant
- Five depots which service the region's ten individual water supply and wastewater systems.

The large geographical area serviced by the Corporation requires a greater investment of pipeline per connection than that of any other Victorian Water Corporation. EGW has 23.8 water properties per kilometre of pipeline (State average 52) and the lowest number (27.5) of wastewater connections per kilometre of sewer main (State average 60)[1]. This imposes a strain on both maintenance expenditure and our ability to meet service levels for all customers.

The non-residential sector represents 14.6% of the water service customer base and accounts for 33% of EGW's total water consumption.

The Corporation's sewerage systems collect around 3000 megalitres of sewerage each year; comprising domestic waste, trade waste and infiltration water. The trade waste collected from non-residential commercial customers is mainly from food manufacturing. There are no major heavy industries operating in the region.

Service Information

Water	2007/2008	2005/06
Serviced properties - domestic connections - non-domestic connections	17,132 2,893	16,800 2,866
Volume of water consumption (ML)	5,107	4,929
Length of water mains (km)	838	828
Water treatment plants	5	5
Water disinfection plants	21	21
Separate water supply systems	10	10
Wastewater		
Serviced properties - domestic connections - non-domestic connections	14,141 1,886	13,920 1,880
Volume of wastewater collected (ML)	2851	2954
Length of sewer mains km	579	575
Wastewater treatment plants (secondary)	9	9
Wastewater treatment plants (tertiary)	1	1
Wastewater re-used %	100%	100%
Separate wastewater systems	10	10

[1] Victorian Water Review 2005/2006, Victorian Water Industry Association Inc

Customers

Towns in East Gippsland are relatively remote from Capital cities and contain small populations. Melbourne is some 280 kilometres to the west of the Corporation's largest town and corporate centre, Bairnsdale (pop 11,269).

Significant population growth and development continues to occur in the serviced settlements of Bairnsdale, Lakes Entrance, Metung, Mallacoota Paynesville and Dinner Plain. The unspoilt natural environment, proximity to the coast or Gippsland Lakes, and freehold alpine property above the snow line draw many tourists and are also a major factor in attracting a high proportion of retired and semi-retired people as permanent/semi permanent residents.

EGW's customer base for both water and wastewater services has increased at around two per cent per annum over the last three years reflecting the move to coastal living. The majority of large towns are now serviced by both water and wastewater infrastructure, with the townships of Bruthen (pop. 570[2]) and Cann River (pop. 211[3]) the most recent to have received sewerage schemes.

[2] 2001 ABS Statistics
[3] Ibid

Chapter 2 Review of outcomes for the First Regulatory Period

This chapter outlines the Corporation's progress in the delivery of Key Performance Indicators committed to in the first Water Plan. It also contains a review of Capital and Operating expenditure against the forecast for the period. Estimates have been utilised for expenses and revenues where actuals are not available for 2006/2007 and 2007/2008.

2.1 Service Standards and Other Outcomes

The Corporation achieved the majority of key performance targets during the first regulatory period. Targets that were not met were for planned water supply interruptions. This was primarily as a result of carrying out additional planned essential maintenance of the water pipeline network. The impact of not meeting this target on customers was kept to a minimum by undertaking major works at night during non peak demand periods.

Steps are also being taken to ensure that customers remain largely unaffected by essential planned works in the future by continuing to undertake these works during non peak demand times, and utilising processes that do not require interruption to service.

2.1.1 Performance Indicator Results

The key performance results against targets for the initial 18 months of the first Water Plan (WP1) are shown in Appendix A. This indicates that most key performance targets were met during this period with only a small number of targets recording variances.

As discussed above the target for planned water supply interruptions was not met in this period. The additional essential planned maintenance that caused this exceedence included:

- scouring and swabbing mains to remove Bryozoa weed growth from inside water pipes;
- Manganese removal from pipes in Mallacoota; and
- an increased pipe cleaning program for small towns connecting to new full water treatment plants.

The Corporation carried out the Bryozoa and Manganese removal works mainly at night during non peak periods thus minimising supply interruption impact to customers. Preventative mains scouring and swabbing will continue to be a part of East Gippsland Water's planned pipeline network maintenance for the future to ensure high quality water to customers. Efforts will therefore focus on carrying out these works during times that cause minimal disruption to customers.

Unplanned water supply interruptions were also affected by the increase in the number of breakages due to:

- external contractors laying gas mains in the region;
- exceptionally dry ground conditions causing earth movements; and
- ageing assets.

Measures are being taken to ensure customers are largely unaffected by essential planned maintenance in the future by undertaking this during non peak periods and improving the continuity of water supplies during the works.

During the course of the plan period improvements in data collection, recording, reporting and monitoring of targets has led to more detailed measurement of Key Performance Indicators (KPI). These improvements will lead to better verifiable customer service outcomes in the future, but mean some of the KPI targets set for the first regulatory period were developed from data that was less reliable.

2.1.2 Network Reliability and Efficiency

Water Supply

East Gippsland Water has recorded a low rate of water supply interruptions and a low rate of planned customer interruptions during peak hours. The average duration of unplanned interruptions, however, did not meet the target for 2005/2006 as a result of two unplanned water supply interruptions in the Marlo district. Importantly, these interruptions had no real impact on customers because repairs were carried out overnight when the use of water was minimal. The reallocation of staff from reliability service provision to deal with the urgency created by the water quality issues in the fire affected Mitchell River System also contributed to not meeting water supply reliability targets over this period.

The high number of planned interruptions recorded is partly attributed to development and capital works in the region which required water supplies to be turned off to allow for new pipeline connection.

Targets set for the average unplanned customer minutes off water supply were also not met during the first year of the Water Plan. Despite not meeting this target EGW's result remains within the group of Authorities recording the lowest average customer minutes off supply[4].

The Corporation exceeded its 2005/2006 target for reducing water losses from its system by an extra 2.4%. Further improvement will continue to be pursued with additional reductions in losses forecast for the second regulatory plan period.

Wastewater Services

The Corporation recorded a low rate of sewage blockages (third lowest of all 17 Water Authorities). All sewer spills were contained within five hours; however the target average time to contain a sewer spill was not met for 2005/2006. With improved data collection over the life of the first Water Plan EGW now believes that this target was an overestimate and will need to review this figure in future iterations.

Drinking Water Quality

Overall, drinking water quality in East Gippsland continued to improve throughout 2005/2006. Over 35,000 individual laboratory analyses were conducted on samples taken from source waters, storages, treatment plants and customer taps. Total

[4] Essential Services Commission, Water Performance Report, February 2007.

sampling and analysis costs were approximately $264,000. In addition to regulatory monitoring, a large number of samples were taken and analysed for operational and research purposes to assist with improving the performance of the Corporation's water assets. (EGW Water Quality Annual Report 2005/2006)

Water supplied to customers throughout 2005/2006 met the legal obligations of the *Safe Drinking Water Act 2003.* All customers received drinking water that met *E. coli,* turbidity and disinfection by-product requirements and targets.

East Gippsland Water recorded a number of complaints relating to water quality in 2005/2006. The majority of these are attributable to a single episode which registered 127 individual complaints at Lakes Entrance. A maintenance program to prevent a reoccurrence has been established and initial works undertaken in 2006/2007.

Environmental Performance

The Corporation recorded 81% compliance with EPA licences. This was below target because of electrical conductivity (salinity) levels recorded above licence limits at Paynesville, Lakes Entrance and Metung Wastewater Treatment Plants. The cause of this exceedence was salt water infiltration into sewers located below the water table adjacent to the Gippsland Lakes. Work to locate and stem the leaks into the sewers is being undertaken and results for locating these leaks have improved. The Dinner Plain system also recorded unfavourable biochemical oxygen demand readings. This was caused by algae-affected samples and some underperformance by the wastewater treatment plant. The performance of the plant is being systematically addressed through various upgrades.

EGW continues to meet its 100% recycled wastewater target and is the top-ranked Water Corporation for effluent recycling. This result is consistent with the organisation's commitment to preserve and protect the local environment that is critical to East Gippsland both socially and economically. During the regulatory period, East Gippsland Water received commendation from the EPA for its achievements in this area.

Affordability

In 2005/2006 the average household bill for water and sewerage for all Water Authorities ranged from $446 to $723. East Gippsland Water's average household bill was $595.[5] This average bill included costs to meet the 100% water reuse target for sewerage services and those of providing both water and wastewater services to areas that have a low customer density (low number of customer connections to pipe length ratio).

Customer Responsiveness and Service

The 2005/2006 East Gippsland Customer Satisfaction Survey reported a high level of customer satisfaction, supported by a low number of complaints received by the Energy and Water Ombudsman Victoria (EWOV). The very good results from the annual customer satisfaction survey are a reflection of the emphasis the Corporation places on efficient and professional customer response. The high overall satisfaction

[5] ESC Water Performance Report 2005/2006

rating of 97% in July 2006 is also an improvement on the 96% from the previous year.[6]

East Gippsland Water responded to phone calls well within KPI targets with 96% of all calls answered within 30 seconds. Customer Service Benchmarking Australia (CSBA), commissioned by the ESC to benchmark water businesses' call centre performance against Australian water and energy sector averages in 2005/2006, also reported favourably on the performance of EGW. The Corporation was equal best performer of all regional urban businesses for calls answered within 30 seconds, and best performing Regional Water Authority for enquiry handling skills. It also achieved benchmark results for operator manner in the third and fourth quarters of the year.

Positive responses from incident follow up were also received. Each month, a random sample of customers reporting incidents (10-15%) are contacted and asked to comment on the service they have received. The results are reported to the EGW Board monthly and feedback is provided to staff. The majority of customers welcome the feedback request and report favourably about the solutions and promptness of service provided to them.

Twelve complaints were received by EWOV in the 2005/2006 period from customers of East Gippsland Water. This equates to 0.06 complaints per 1000 customers and represents only 3% of the total regional urban water sector share of complaints. Even with this small number of complaints to EWOV, the KPI target was not met due to a miscalculation in the target initially set. The current target of 0.05 would allow only one complaint to EWOV per annum, when in fact, the target was intended to allow 10 complaints for a year.

The Corporation achieved a result of 97% for processing all 'requests for information statements' from customers within 5 days. There was insufficient information to report accurately on property development agreements and a new system has now been established to provide this performance statistic in the future.

2.1.3 Demand Outcomes for the Regulatory Period (Refer to Table - Appendix B)

Water Connections/Assessments

The number of water connections increased by around 1.5% during the Water Plan period, in line with the estimate. Water assessments were used as the basis for determining demand in the first Water Plan and the above referenced table compares the assessment numbers with actual connection numbers. The difference between the estimated water plan assessments and the total connections varies only slightly for water, as more connections were made than anticipated (approximately 0.56% variance per annum).

Sewerage Connections

The increase in the number of wastewater connections was slightly greater than the number of connections for water. This is attributable to customers connecting to the

[6] East Gippsland Water Customer Satisfaction Survey 2006.

new sewerage schemes in Cann River and Bruthen, as well as increased development in Bairnsdale and the coastal towns of Paynesville, Lakes Entrance and Mallacoota.

Estimates for sewer connections in the first Water Plan vary as much as 3% from the actual numbers recorded. The difference is attributed to an improvement in reporting by using the customer billing system, where previously only assessment figures were used. The demand for sewerage is based on equivalent tenement units (EQTs).

Water Consumption

The Corporation reported an average water consumption of 195 kL per household for 2006/2007. This represents a 10.1% reduction against a high of 217kL in 2002/2003, and below the reported regional Victorian (240kL) and the State-wide (204kL) averages. It is also better than the average for Victorian Regional Water Corporations with less than 35,000 customers.

The average consumption of 196kL for 2005/2006 is the maximum EGW will be targeting over the remainder of the first regulatory period.

Table 2A Comparative Average Household Consumption in kilolitres (kLs)

Details	2002/3	2003/4	2004/5	2005/6
EGW	217	204	201	196
State-wide	231	208	201	204
Regional >35,000	262	236	223	230
Regional <35,000	312	298	293	284

Total Sewerage Volumes

The estimate for total sewerage volumes set for the first regulatory period (WP1) do not match with actual amounts received. Targets set for the first regulatory period were determined from imprecise data and as measurement improved over the period, decreased the validity of the target. The volume of sewerage collected has remained consistently around 3000 ML per annum over the last two years. Refer to Appendix B, Comparative Analysis of Forecast Vs Actual Demand in the First Regulatory Period, for further details.

Developer Lots

The volatility of estimating developer lots is evident when the actual results are compared to the estimated totals for this measure. Once again the growth in new allotments has been greater than forecast. Coastal regions throughout the State are experiencing high growth rates and those in East Gippsland are no exception.

2.2 Delivery of Key Capital Projects

The Corporation has achieved an average actual Capital expenditure to budget result of 95% over the last five years. Based on this performance, and the major driver to provide full water treatment to customers of the MRWSS (81% of all water

connections), the Corporation is confident that it will be able to deliver the key capital projects that have been included in the second regulatory period (WP2).

The table and chart below show actual/forecast Capital expenditure versus budget for the seven year period from 2001/2002.

Table 2B Comparative Capital Expenditure Actual/Forecast vs. Budget

Details	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
	$000s	$000s	$000s	$000s	$000s	$000s	$000s
Actual Capital Expenditure *	6,026	6,695	7,001	8,710	10,088	19,197	18,970
Budgeted Capital Expenditure	6,329	6,759	7,783	9,876	9,677	12,224	11,477
% Spend to budget	95%	99%	90%	88%	104%	157%	165%

* estimated from 2006/2007 onwards

Chart 2A Comparative Capital Expenditure Actual/Forecast vs. Budget

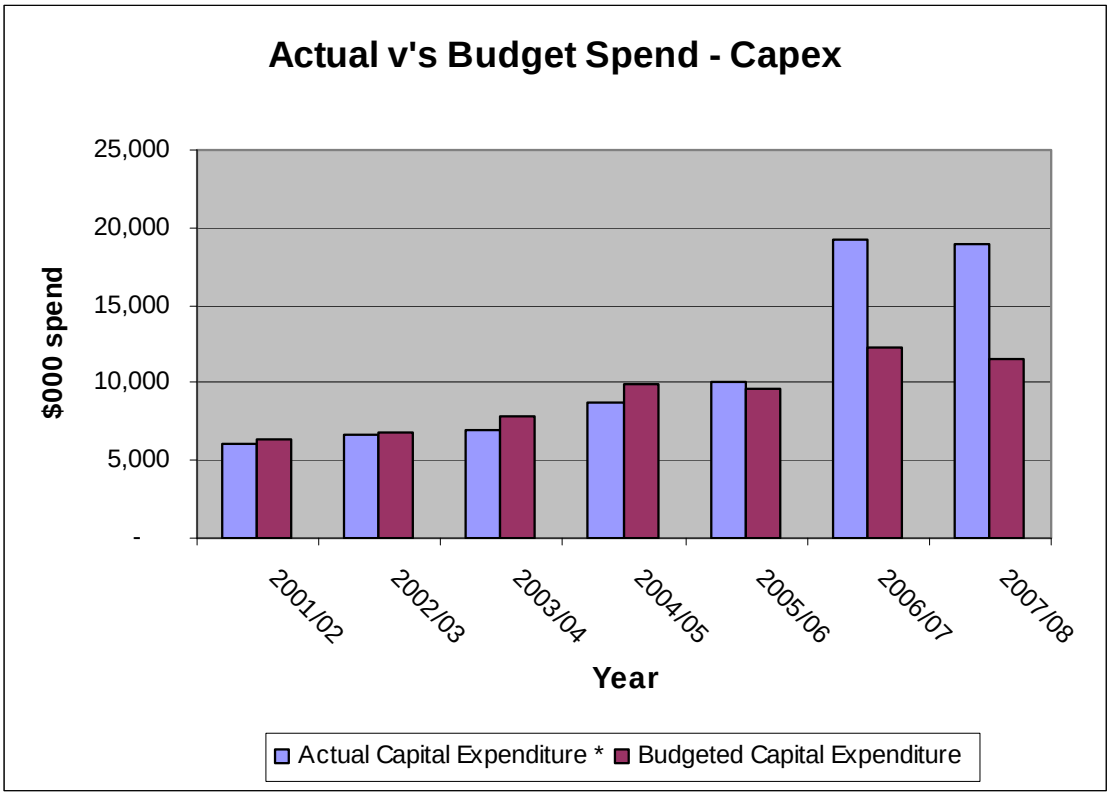


Table 2C Result/Progress of Major East Gippsland Water Capital Projects

Project	Project Description	Outputs to be achieved within the regulatory period	Result/Progress
Small Town Scheme Water Quality Upgrades			
Improve water quality and reduce health risks from open catchment source waters	Construction and installation of water treatment plants for: ▪ Bemm River ▪ Cann River ▪ Buchan ▪ Swifts Creek ▪ Nowa Nowa (pipeline from Lakes Entrance system adopted as an alternative to water treatment plant)	All projects to be delivered	These projects are on-track to be delivered within the regulatory period.
Mitchell River Water Supply System Strategy Works			
Improve water quality and implement bulk water transfer augmentation to meet growing demand over the next 25 years	This project will be undertaken over 8 to 10 years. During this regulatory period the project will involve construction of a water treatment plant at Woodglen Reservoir, possibly one at Toorloo Reservoir and provision of covers for open storages. Future water plan works include bulk water transfer pipeline and pumping works to meet growth needs for Bairnsdale, Lakes Entrance, Paynesville and other small townships.	Water quality projects to be delivered over this regulatory period and the next. Actual works to be delivered in Water Plan period subject to outcome of further detailed planning currently underway.	Detailed planning is progressed, with overall project program largely developed. Key projects have commenced, and as forecast this project will be delivered over the first and second regulatory periods.
Reuse Infrastructure Upgrades Associated with Wastewater Treatment Plants			
Reuse requirements in EPA licences	Upgrades at Lakes Entrance – Bruce's Track reuse farm (additional storage), Metung (additional treatment, storage and irrigation capacity). Paynesville (additional treatment capacity), Dinner Plain (additional storage), Cann River (new scheme works- irrigation), Orbost (additional irrigation), Mallacoota (refurbish and expand capacity of winter storage).	Projects to be delivered by 2007/2008. Bruce's Track: additional winter storage 2005/06 and 2006/2007. Metung: aerator on primary treatment lagoon 2005-06; additional winter storage 2006/2007 to 2007/2008. Paynesville: aerators on primary treatment lagoons 2007/2008. Dinner Plain: additional winter storage 2006/2007. Cann River: centre pivot irrigator 2006/2007. Orbost: additional irrigation winter storage 2006/2007. Mallacoota: refurbish and expand winter storage 2006/2007.	Winter storage completed. Aerator completed; winter storage programmed for 2007/08. Reviewing alternative options for best long term outcome. Project deferred, subject to funding. To be completed 2007/08. Completed by 2007/2008. Construction now programmed for 2007/08.
Water renewals/replacement			
Maintain service levels	Replace ageing water reticulation mains in various water supply systems	Reticulation 7.5 kms	These projects are on-track to be delivered within the regulatory period.

Project	Project Description	Outputs to be achieved within the regulatory period	Result/Progress
Sewer renewals/replacement			
Maintain service levels	Minor expenditure only on lining ageing sewers	Various repairs kms	These projects are on-track to be delivered within the regulatory period.
Water Augmentation			
Growth	Balfour's Road area high level system augmentation to service growth and meet service standards.	Balfour's Rd: new pump station and connecting mains 2005/2006.	Completed.
	Kalimna West water supply to improve supply standard and free up capacity of Lakes Entrance main supply pipeline.	Kalimna pump station and new mains 2006-07.	Project deferred to next regulatory period.
	Tambo Bluff Estate water supply scheme to serve new customers.	Tambo Bluff Estate: new reticulation mains 2005/2006	Work is programmed to commence this regulatory period, and carry-over into next, in conjunction with total infrastructure delivery by others.
	Bogong Street and Capes Road high level system augmentation due to growth and replacement of ageing assets.	Bogong St Capes Road 2005/2006	Work is programmed to commence this regulatory period, and carry-over into next.
Sewerage Augmentation			
Growth	Bairnsdale Wastewater Treatment Plant upgrade	Bairnsdale Wastewater Treatment Plant upgrade: planning and design and commence work 2007/2008.	Project deferred, to commence during the next regulatory period, and beyond.
	Banksia Peninsular backlog sewerage scheme	Banksia Peninsula 2006/2007	Expected to commence during this regulatory period, and carry-over to next.
	Tambo Bluff sewerage scheme	Tambo Bluff;2005/2006	Work is programmed to commence this regulatory period, and carry-over into next, in conjunction with total infrastructure delivery by others.

2.3 Actual Capital Expenditure associated with the delivery of Outcomes

The chart and tables on the next page outline the 12 major projects undertaken directly associated with outcomes and their total related capital expenditure.

Chart 2B Comparative Actual/Forecast vs. Budget for the 12 major Capital Works Projects

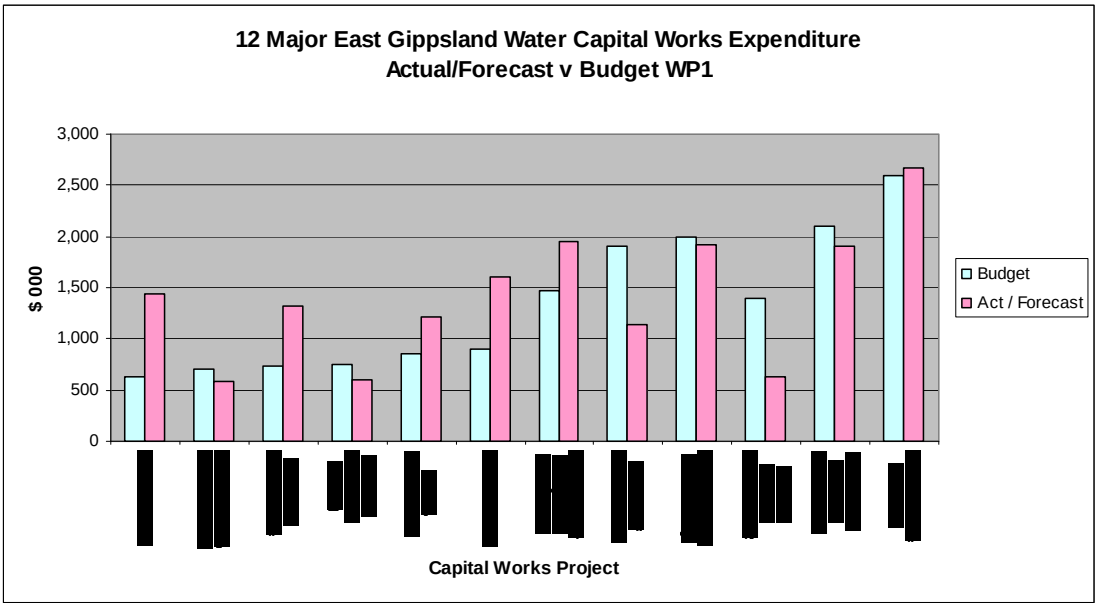


Table 2D Capital Expenditure of Major East Gippsland Water Projects ($000s)

Project	Forecast in Water Plan 1				Actual / Revised Forecast Expenditure	Variance (unfavourable)
	2006	2007	2008	Total		
Swifts Creek WTP *	402	233		635	**1,444**	(809)
Banksia Peninsula Sewerage Scheme	50	555	100	705	**583**	122
Nowa Nowa Supply Pipeline*	440	300		740	**1,326**	(586)
Water Mains Replacements (various)	250	250	250	750	**596**	154
SCADA Implementation.	280	300	270	850	**1,216**	(366)
Cann River WTP*	400	497		897	**1,609**	(712)
WWTP – Winter Storage Basin Refurbishment	142	1,255	66	1,463	**1,945**	(482)
Tambo Bluff Estate Sewerage	900	1,000		1,900	**1,145**	755
Bruce's Track Wet Weather Storage	800	1,200		2,000	**1,918**	82
MRWSS - Woodglen Reservoir - No.2	10	355	2550	2915	**629**	2286
MRWSS – Wy Yung Basin Floating Cover		500	1000	1500	**1,899**	(399)
MRWSS - Eagle Point Tanks		1000	1000	2000	**2,667**	(667)

Projects targeted to meet regulatory compliance for EPA licences and Drinking Water Quality provide the means to reduce unaccounted for water, reduce water quality complaints and improve service to customers.

*Swifts Creek Water Treatment Plant, Nowa Nowa supply pipeline and the Cann River Water Treatment Plant expenditures were over budget as a result of higher than anticipated costs received on tender price. The tender price reflects the current market and material prices.

Greater then budget Capital Expenditure was incurred in the Water Plan due to higher than anticipated costs of several capital projects and reprioritisation of projects by bringing forward their implementation as part of the overall Mitchell River Water Supply System (MRWSS) project. Capital Expenditure on the MRWSS will continue to dominate the Corporation's program for the second regulatory period.

Capital Expenditure associated with the impacts of the Great Divide fires on the Mitchell River Water Supply System

As a result of the 2006/2007 Great Divide fires, the Corporation has had to readjust its Capital expenditure program to maintain water supplies to 81% of its customers. The costs for major Capital work projects to meet water supply demand remain an estimate at this stage due to the uncertain nature of this water quality issue.

Table 2E Summary of Capital Expenditure Outcome Water Plan 1

Capital Expenditure	2005-06 $M	2006-07 $M	2007-08 $M
Water Plan Budget	9.23	11.51	10.51
Actual & Estimated Expenditure	10.09	14.03	17.89
Estimated Mitchell River Supply Fire Costs	0.00	5.07	0.84
Variance	-0.41	-7.59	-8.22

2.4 Changes in Legislative Obligations

During the course of the first regulatory period there were important changes to water-related legislation:

- The Water Governance Act 2006
  - Introduction of 'on the spot' fines for infringement of water savings rules
  - Shift from Statutory Authorities to Statutory Corporations
- The Draft Statement of Obligations included new requirements to:
  - provide a Water Supply Demand Strategy by March 2007 and each five years thereafter
  - application of the Sustainable Management Principles
- Public Administration Act 2004 Amendments and the Victorian Charter of Human Rights and Responsibilities Act, requiring:
  - Human Resource requests for increased reporting, training and reporting to ensure compliance.
  - Additional training requirements
- Safe Drinking Water Act regulations
  - Increased monitoring to cover water quality risk
  - Increased auditing for water quality reporting

2.5 Operating Costs versus Revenue

The Corporation has been successful in meeting the majority of its core service standards in the first half of the current regulatory period. In some cases efforts to improve and maintain performance have incurred costs that exceeded the allocated budget (see table 2F).

Operations and maintenance expenditure have also exceeded Water Plan targets in the first regulatory period, particularly for 2006/2007. Therefore, the base expenditure needs to be adjusted to reflect this in response to the following:

- increased activity to maintain water supplies in bushfire affected catchments;

- increased spending to improve services and to meet regulatory compliance targets;
- increased publicity and customer eduction for implementation of demand reduction strategies.

Table 2F Actual and Estimated expenditure over Budget for Major Cost Drivers during the First Regulatory Period.

Cost Driver	Details	Over Budget Costs Actual / Estimated $
To meet EPA compliance for sewerage treatment standards	Cause: Electrical Conductivity levels higher than licence limits due to infiltration of salt water into sewer pipelines at various locations. Action: Project carried out to investigate, identify and repair leaks.	$303K
To reduce sewer blockages complaints and rectification times	Cause: High incidence of tree roots causing sewer blockages. Action: Program to clean out sewer lines from tree root invasion for major problem areas.	$50K
To reduce water quality complaints	Cause: Water quality complaints as a result of one water quality event. Action: Flushing and scouring works on the main and reticulation pipelines for Lakes Entrance completed.	$50K
To best manage limited water supply due to fire and drought	Cause: Drought conditions and fire have limited the amount of water supply available to customers on the Mitchell River Water Supply System. Action: Education programs to reduce water demand, signage, water audits for high water consumption customers, increased leak detection works carried out.	$300K
To recruit quality staff to the Corporation	Cause: Qualified engineers and O&HS candidates difficult to attract to the region. Action: Advertised extensively including overseas. Reviewed salaries.	$80K
To increase frequency of tests for water quality	Cause: Increase frequency of water quality tests. Action: Tests for water quality conducted weekly up from fortnightly.	$36K
Audit fees	Cause: Higher audit fees for ESC and internal auditing. Action: ESC audit fees to be adjusted in the Water Plan.	$90K
OH&S costs	Cause: New OH&S regulations required further staff training. Action: Training provided to staff and contractors, manuals and policies developed/amended.	$50K

Operating Expenditure associated with the impacts of the Great Divide fires on the Mitchell River Water Supply

Large expenditure in dealing with the impacts of the 2006/2007 Great Divide fires have been shown separately in the overall operating expenditure tables. These fires and subsequent rainfall have caused ash and silt to be washed into the Mitchell River) and as a consequence the river water quality has been compromised. Significant costs for treatment of this contaminated water, higher operating costs and expenditure to secure alternative water supplies have been incurred by the Corporation. Operating costs are only an estimate at this stage as the actual impact and duration of this problem remains uncertain. Most indications are that the impact may well extend beyond the life of this Water Plan.

Table 2G
Summary of Operating Expenditure Outcome Water Plan 1 (estimated for 2007/2008)

Details	2005-06	2006-07	2007-08
Water			
Operations & Maintenance	2.44	2.12	2.21
Bulk charges			
Treatment	0.85	.81	0.87
Customer Service and billing	0.30	.31	0.37
GSL Payments			
Licence Fees			
Corporate	1.02	1.57	1.95
Other operating expenditure	0.46	1.61	1.24
Total Water	5.07	6.41	6.63
Sewerage			
Operations & Maintenance	1.68	1.20	1.38
Bulk charges			
Treatment	0.80	.87	.89
Customer Service and billing	0.30	.31	.37
GSL Payments			
Licence Fees			
Corporate	1.04	1.59	1.97
Other operating expenditure	1.16	0.29	0.31
Total Sewerage	4.98	4.25	4.92
Sub Total Operating Costs	10.05	10.66	11.55

Details	2005-06	2006-07	2007-08
Encironmental Contribution	0.56	0.59	0.59
Licence fees	0.05	0.04	0.05
Costs adjusted for 2006/2007 fires in the Mitchell River Catchment			
less Fire recovery works		0.89	0.9
add Expenses that would have been incurred without fires*		0.30	
Total net of fire costs to reach 06/07 base	10.66	10.70	11.29

Calculation to determine the actual operating base for 2006/2007 has taken account of the abnormal operating expenditures incurred from the 2006/2007 fires. Estimated costs for 2007/2008 also include fire operating costs of $0.9M.

2.5.1 Recovery of Operating Revenue/Expenditure

During the 3 year period of the first Water Plan the Corporation has collected more revenue than forecast due to differences in the predicted growth in demand for services (Table 2H). However, operating expenditure as a result of extreme natural events have resulted in greater costs than were budgeted. The net impact of differences in operating revenue and expenditure is shown in this table.

The net under recovery has been largely attributed to the impact of the 2006/2007 fires on the Mitchell River Water Supply System. Not only was additional expenditure required to continue providing high quality water for drinking supplies, but revenue was also lost as a result of water restrictions to maintain limited supplies. The actual costs of the fire impact will not be realised until late 2007/2008 where a further assessment of expenditure will be undertaken.

Table 2H Recovery of Operating Revenue/Expenditure

Details	2005/06 $	2006/07 $	2007/08* $	Total Difference $
Over Recovery of Revenue				
Water	168,000	214,000	167,000	549,000
Wastewater	501,000	604,000	666,000	1,771,000
Mitchell River Supply Fires	0	0	(300,000)	(300,000)
Total Over Revenue	669,000	818,000	533,000	2,020,000
Over Expenditure				
Water	262,000	374,000	(229,000)	407,000
Wastewater	1,103,000	(91,000)	107,000	1,119,000
Corporate	(519,000)	-491,000	701,000	(309,000)
Mitchell River Supply Fires	0	898,000	900,000	1,798,000
Total Over Expenditure	846,000	690,000	1,479,000	3,015,000
Net Under Recovery	(177,000)	128,000	(946,000)	(995,000)

* estimated

2.6 Other outcomes

Increased Operating and Capital expenditure as a result of extreme natural events

Operating costs are expected to increase in the second and third years of the first regulatory period as a result of the continuing impact on water quality and quantity of the 2006/2007 Great Divide fires. Extensive filtration equipment has been procured to treat water to a safe and useable standard, whilst alternative sources of water supply in the form of bores are also being progressed. Extra operation and maintenance costs to source and treat this water are therefore being incurred. It is also uncertain when the water quality from the Mitchell River will improve to enable ongoing costs to be reduced. With each rainfall event the natural agitation of increased river flow affects water turbidity, which in turn requires differing treatment to achieve suitable water quality and quantity outcomes.

In late June 2007 the East Gippsland region was ravaged by floods. This resulted in increases to both capital and operating expenditure in response to flood impacts for repairs to water and wastewater infrastructure. The full financial impact of this event is still being assessed.

Water Restrictions

The Corporation experienced major bushfires in several system catchments this financial year, leading to water restrictions being declared for three water supply systems. This affected 83% of the Corporation's customers with the restrictions reducing the demand for water, and therefore revenue.

Table 2I Water Restrictions during 2006/2007

System	Restriction	Period	% Water Customers
Mitchell Water Supply	Stage 3	3 March – 15 March	81
	Stage 4	16 March – 29 June	
	Stage 3	29 June 2007 – current as at reporting date	
Omeo Water Supply	Stage 4	10 February – 18 May	1
	Stage 2	18 May – 29 June	
Swifts Creek Water Supply	Stage 4	10 February – 18 May	.6
	Stage 2	18 May – 29 June	

Board Performance

The Board met all governance standards and was independently assessed on performance during the period.

Chapter 3 Service Outcomes

This five year Plan includes projects and services to:

- improve water quality and security;
- maintain 100% wastewater reuse; and
- meet the statutory and regulatory requirements of Government.

The Plan incorporates major Capital Expenditure to achieve safe drinking water for all customers and to enhance water supply security while maintaining high levels of performance. A significant $113 million, 10 year capital works program is planned to meet growth and improve services to customers.

Pricing to meet the revenue requirement has been structured to reward efficient water users and wastewater service pricing is being progressively altered so that all customers will pay the same price for similar services throughout the region.

The Statement of Obligations, auspiced by the Water Industry Act 1994, details responsibilities for the Corporation to meet in its operations. This Plan addresses those obligations, including the variations from 2007 to improve the sustainability focus of the business beyond simply water savings.

Future expansion in the region will focus on providing security of water supply to cater for population and housing growth in major towns and to maintain the Corporation's 100% wastewater reuse target. Water quality upgrades and improvements are planned for towns supplied by the Mitchell River System. Investments in new technologies to improve service performance and operational efficiency, and enhancements to sewers to reduce saline infiltration are other key project objectives.

3.1 Customer Consultation Overview

East Gippsland Water covers some 10% of Victoria in area and has approximately 20,000 properties connected to its ten service systems. Whilst the majority of customers are located at Lakes Entrance and Bairnsdale there are considerable challenges in communicating with outlying populations. As a comparative example, Mallacoota is three hours drive from Bairnsdale, a similar drive time as to Melbourne. In addition, the mail service of many small town residents is via mail boxes, or twice weekly deliveries, whilst access to the internet, though increasingly available, is not universal.

EGW uses a variety of techniques to communicate with customers, not least of which is the contribution made by the Directors of the Board. As members of the East Gippsland community, they also provide valuable customer feedback.

As an example of the success of EGW's customer interaction the 2006 Customer Satisfaction Survey shows an overall satisfaction rating of 97%.

3.1.1 Strategies used for Customer Consultation

The Corporation uses a range of communication methods to keep customers informed and to obtain their feedback. Appendix B (attached) provides a comprehensive list of customer consultation methods used extensively throughout the period of the first water plan. The primary method of providing information to customers is written documentation in both

hard and soft copy. The 'On Tap' publication is included with billing details, the quarterly Pipeline publication reaches a number of stakeholders and customers whilst articles in the region's main newspapers and information provided through the EGW website are all examples of this.

Customer feedback and opinion is collected from the Annual customer survey, incident follow up procedure (monthly calls to a random sample of at least 10% of reported incidents) and directly through project interest groups.

Results from the annual customer survey, customer responsiveness, incident report follow up, and from the low level of complaints referred to EWOV, indicates a high level of customer satisfaction with the Corporation's operations and performance.

In order to communicate the outcomes being sought in this Water Plan and the likely impacts to customers throughout the region, EGW has utilised a number of communication methods.

A full page advertorial, containing highlights of the Plan, likely cost implications, how to provide feedback and where copies would be available was placed in the free East Gippsland News that circulates throughout the region. An associated media release was distributed to all broadcast and print media covering the region, which resulted in the Managing Director participating in a radio interview with the ABC in reference to the Plan. The ABC broadcasts across East Gippsland and additional coverage was also provided by WIN TV news. The release was also distributed directly to local politicians.

EGW placed a direct link to the Plan on the front page of its website and distributed copies to all local libraries, including the mobile library service that visits remote communities. Copies were also available from the front counter of the Bairnsdale Office.

A 2 page article in EGW's Pipeline newsletter based around the Water Plan, its outcomes, the cost implications and again how to provide feedback, was published in August 2007. This is distributed via mail directly to some750 stakeholders and customers.

As the comment period drew to a close, local papers and broadcast media were sent a release reminding of the closing date for comments. This appeared in a number of the local publications.

3.1.2 Key Issues identified by Customers

The Customer Satisfaction Survey, undertaken in July 2006, identified the following areas for East Gippsland Water

- price;
- information provision;
- the environment; and
- responsiveness to customer and community concerns.

The Corporation has actively increased the frequency and variety of information to customers through various means. The 'On Tap' information sheets issued with accounts, regular newspaper articles and simplified access to information on the website are all examples. The recent escalation of water restrictions has also meant greater communication with customers to keep them informed about ways to reduce water

consumption. Full page advertorials have been successfully used to provide information to customers.

The 100% wastewater reuse commitment of the organisation is consistent with the customer emphasis on a sustainable environment as per the customer satisfaction survey. The region includes large areas of the Gippsland Lakes, Alpine and coastal environments which is why many customers reside there. The Corporation continues to lead the way in ensuring that water and wastewater services remain sustainable in support of these customer ideals.

The Board approved the implementation of the Mitchell River Water Supply System (MRWSS) project to maintain and improve drinking water quality standards and water security for the future. The project would also have the added benefit of reducing the risk of water contamination from extreme natural events. Funding was initially included in the first regulatory period following extensive long-term planning and analysis. The original decision on this major capital expenditure project, requiring an overall investment of approximately $35M, was made in 2003 following a report by Earth Tech Engineering Pty Ltd - *Mitchell River Supply System Bulk Delivery & Water Quality Improvement Nov 2003.* Further details contained in the East Gippsland Water Plan 2005-06 to 2007 -08 (p. 41) refer to the long-term nature of this project.

Community consultation has centred on presenting the Corporation's Capital Expenditure program and service levels targets through a variety of channels. So far no objections, or negative feedback, have been received on the proposed expenditure and associated prices. However, written comment was received from some stakeholders in regard to various components of the Plan, which have now been addressed.

Water quality for customers in the region's small towns was also identified as an issue. The implementation of water treatment plants and major pipeline extensions to these small towns now provides customers with an improved quality of water.

3.2 Regulatory and Government Obligations

Regulatory obligations from the Essential Services Commission requirements for yearly audits and development of the Water Plan have added to the cost of EGW operations. Other regulatory Authorities have also increased their demand for reporting. Unfortunately, different reporting formats and information are requested by DSE, DTF, EPA and DHS. These requirements do impact on operations and add costs. Further demand for information and reports are absorbed in day to day administration where Government departments seek additional and varied details about industrial relations, workforce, human resource statistics and financial information. Such requests are difficult to estimate as a financial impost but all contribute to business costs.

3.2.1 Statement of Obligations

Table 3A New Obligations Identified

New Obligation	Outcomes to be Delivered	Expenditure
The Water Governance Act 2006	Introduction of 'on-the-spot' fines for infringement of Permanent Water Savings Rules, Drought Response Plans and water restriction by-laws. Requirement for the Corporation to take into account principles of sustainable management. Establish the Corporation as a statutory corporation and improve governance arrangements.	Full cost implications uncertain at this stage but may require resourcing of role with training $5,000 and specific vehicle $33,000. Unknown at this stage. May require elements of carbon trading. Changes to signage, marketing and advertising.
Statement of Obligations Water Supply Demand Strategy	Strategy to be delivered March 2007 and every five years afterwards.	$100,000
Application of Sustainable Management Principles	Unknown at this stage.	Costs not known at this stage.
Conserving and Recycling Water	Audits of top 10 non residential water users. Water meters staff labour consumption.	$2,000 for each audit excluding any special metering requirements
Research & Knowledge	Research allocation to VicWater Corporation to conduct research to benefit all Authorities. Trial of electronic meter readers. Installation/software trial for difficult access areas and estimated read areas where history makes installation difficult.	$25,000
Sustainability	Responding to climate change. Maintaining and restoring natural assets. Using resources more efficiently and managing everyday environment impacts - must include these programs in the Water Plan.	Costs uncertain at this time.
River Health	Corporation required to identify and manage the impact on any waterways, wetlands and aquifers, and risk to, aquatic ecosystems as a result of its operations.	$5000 as an initial cost and will have links to the Sustainability heading.
Public Administration Act 2004 Amendments	Human Resource requests for increased reporting, training and reporting to ensure compliance.	$6000 initial cost then maintenance cost of $2000 p.a.
Victorian Charters of Human Rights and Responsibilities Act	Additional training requirements	Initial $3000

3.2.2 Environmental Obligations

Obligations imposed on the Corporation are derived from 'Principles to Establish EPA Environmental Obligations for Water Businesses for the 2008 – 2013 Pricing Determination' and the Water Industry Act 1994 – Statement of Obligations.

The Corporation is committed to:

- Meeting water conservation and resource efficiency targets,
- Effective sewerage management,
- Appropriate catchment, water and groundwater management, and
- Environmental monitoring, auditing and reporting.

Specific details of actions to achieve these environmental outcomes are summarised below.

Water conservation and resource efficiency

The Corporation will use its Water Supply Demand Strategy (May 2007) as a basis for developing and updating the Water Conservation Plan. This Plan will address all of the water conservation issues set out in the State Environment Protection Policy – Waters of Victoria (SEPP WoV) and Our Water Our Future.

The Water Conservation Plan will also include development of processes for efficient use of resources (for example, water, energy, fertilisers, industrial chemicals etc) within business activities. Water audits of major users to assist in reducing demand will continue to be undertaken at a cost of $2000 per audit, totalling to $20,000.

In support of conservation and resource efficiency, and in compliance with Government direction contained in the SEPP and Our Water Our Future, EGW will also develop a Sustainability Improvement Plan that will consider;

- Organisational relevance and effectiveness
- Improvement in business efficiency
- Minimising the environmental footprint
- Delivery of Integrated community benefits

In addition a new consideration for the organisation is the EPA's Environment and Resource Efficiency Plans (EREPs). This regulatory scheme will require Victoria's largest industrial and commercial users of energy and water to assess and address their environmental resource use and waste generation. In response, an action plan to improve environmental resource use efficiency and reduce waste disposal is required and ongoing implementation reporting is also an obligation. The EREPs will be administered by the EPA and aim to improve air, water and greenhouse use reporting.

An estimated cost of resource allocation provided for the various sustainability activities outlined above is $50,000.

Sewage management

East Gippsland Water will implement the waste hierarchy for sewage management, including water conservation and recycling, as part of sustainable water management. Sewage treatment and reuse will be upgraded through improvements to treatment plants and ensure that EPA requirements are maintained.

The Corporation will maintain the 100 per cent reuse of its wastewater for environmentally beneficial purposes and will continue biological and flow monitoring of environmental releases to MacLeod Morass. An ecological risk assessment of the impact of these releases and development of a program to progressively reduce impacts on waterways will be completed in consultation with the EPA and other external waterway managers.

Sludge and biosolids management

The Corporation proposes to develop and implement plans for the management and handling of sludge, to maintain its current 100 per cent biosolids recycling in accordance with EPA requirements. Sludge is collected from lagoons where it accumulates through sewer treatment processes and typically occurs every 10 – 15 years, or as required, for each of the ten wastewater treatment systems.

Management of the sewerage system

A sewerage management plan is currently under development by EGW, in consultation with the EPA, which will be completed prior to finalisation of 2008-2013 Water Plan. This will address environmental risks of the sewerage system (including design, management, maintenance, incident response and reporting) and include an implementation program. Importantly, the Plan will reference a number of existing documents and actions including:

- Asset Criticality Study - undertaken by Earth Tech for each sewer systems to determine which are the most critical assets based on a number of input factors (eg sewer age, material, geology, size, proximity to sensitive areas).
- 1 in 5 rainfall sewer infiltration study – Earth Tech have completed a preliminary assessment and are currently undertaking modelling on the Bairnsdale sewer system (the most critical sewer system for stormwater infiltration)
- Asset Management software – Conquest development and use within EGW.
- EGW Design guidelines for sewer pump stations and sewers.
- Other documents including Works Instructions and Standard Operating Procedures.

The implementation program will provide a list of priority sewer assets for works whilst Capital Expenditure has been allocated for pump and pipeline relining and replacement over the 5 year Water Plan period. An EPA statutory audit for the 2008-2013 regulatory period will be undertaken to review implementation plan outcomes and to gauge their effectiveness in reducing environmental risks. Operating expenditure has also been allocated in the operations and maintenance budget to meet the cost of management plans and audit.

The Corporation will also develop a Tradewaste Management Manual to address the waste hierarchy principals. It will target EGW's five largest tradewaste customers and also take into consideration the numerous minor trade waste customers (eg bakeries, restaurants, car washes).

Work will continue in the management of greenhouse gas emissions in accordance with the waste hierarchy and best practice requirements of the SEPP Air Quality Management. EGW has recently instigated two separate investigations on greenhouse gas and energy (electricity consumption). Implementation of recommendations from these reports will be prioritised on the best outcome for investment, whilst, any new systems will incorporate energy efficiency in their analysis. Odour management will continue to be addressed with existing arrangements as this is not considered a risk at this time.

Catchment, waterway and groundwater management

EGW does not manage any irrigation drainage or saline discharges, whilst irrigation from Wastewater Treatment Plants is undertaken as per the EPA wastewater irrigation guidelines. A leak detection program to address salt infiltration into sewers is also currently being undertaken with operational expenditure allocated in the wastewater budget.

The Corporation will continue to ensure that its actions are consistent with appropriate waterway management as per SEPP (WoV) requirements and the East Gippsland Region River Health Strategy. EGW is currently working directly with the CMA and Regional DSE to implement the recommendations of the 'Interim guideline for planning permit applications in open, potable water supply catchment areas'in the Mitchell River catchment, with particular emphasis on vegetated corridors and buffer zones along waterways, and minimising the impact of agricultural activities on water quality.

The defined Bulk entitlements held by EGW specify the volume that can be extracted and the passing flows that must be observed in order to meet downstream environmental requirements at various times of the year. The water resource manager calculates the appropriate environmental flow for the waterway in conjunction with the relevant Catchment Management Authority and EGW will meet this commitment as per the rules outlined in the bulk entitlement order. In the event that these environmental flows are to be reviewed EGW will participate in the relevant process to ensure good environmental outcomes.

Information on the amount of water extracted and the flow downstream of EGW offtakes will continue to be made available for audit and any groundwater extracted will be in accordance with the licence as issued by the relevant rural water authority and managed in accordance with the SEPP Groundwaters of Victoria. The Nicholson River Dam will also be operated in compliance with SEPP (WoV). ,.

Monitoring, auditing and reporting

A comprehensive program for monitoring and auditing of environmental impacts and regulatory requirements has been established in EGW's certified EMS. An annual Environment report is also produced, whilst all water industry activities undertaken by EGW are further outlined in the Corporation's Annual Report.

3.2.3 Water Quality Obligations

The Department of Human Services has still to finalise obligations for the Corporation with regard to independent audits on the Water Quality Risk Management Plans.

Table 3B Obligations for Water Quality

Details	Outcome	Expenditure
External Audits of Risk Management Plan as required under the Safe Drinking Water Act 2003 Safe Drinking water Act Regulations	Exact requirement of these audits is unknown at this stage. (Suggested: audits to be conducted annually) Increased monitoring to cover water quality risk and introduction of auditing for water quality reporting	Estimated range $15,000 - $30,000

3.3 Service Standards

Proposed service standards have been based on the last three years of actual performance results. Some data from 2004/2005 was determined as being less than reliable and therefore only the last two years of actual performance results have been used to determine the target. The core service standards are defined in 3.3.1.

3.3.1 Core Service Standards

.Table 3C Core KPI Performance Results and Service Standard Targets for the Second Regulatory Period

		Actual Results						Proposed Service Standard
Performance Indicator Results 2005/6 for period ending June 2006	**Measure**	**2003/4**	**2004/5**	**2005/6**	**Actual Average Results last 3 yrs**	**Actual Average Results last 2 years**	**WP1 Average 3 years target**	**2008/2013**
ESSENTIAL SERVICES COMMISSION TARGETS								
Water								
Unplanned water supply interruptions	per 100km	13.35	9.98	9.18	10.84	9.58	12.30	10
Average time taken to attend bursts and leaks	minutes						90.00	
Priority 1 incidents (No. incidents recorded)			0.00	30.00	15.00	15.00	80.00	30
Priority 2 incidents			40.61	31.75	36.18	36.18	85.00	36.18
Priority 3 incidents			51.17	71.09	61.13	61.13		61.13
Unplanned water supply interruptions restored within 3 hours	per cent		92.59	90.79	91.69	91.69		91.69
Unplanned water supply interruptions restored within 5 hours	per cent	99.07	97.59	97.37	98.01	97.48	99.00	97.48
Unplanned water supply interruptions restored within 12 hours	per cent		98.59	100.00	99.30	99.30		99.30
Planned water supply interruptions restored within 5 hours	per cent	94.29	94.36	95.83	94.83	95.10	95.00	95.00
Average unplanned customer minutes off water supply	minutes	10.12	11.30	17.00	12.81	14.15	8.60	14.15
Average planned customer minutes off water supply	minutes	4.82	5.38	15.11	8.44	10.25	7.50	10.25
Average unplanned frequency of water supply interruptions	number	0.10	0.114	0.112	0.11	0.113	0.100	0.113

Targets		Actual Results						Proposed Service Standard				
Performance Indicator Results 2005/6 for period ending June 2006	**Measure**	**2003/4**	**2004/5**	**2005/6**	**Actual Average Results last 3 yrs**	**Actual Average Results last 2 years**	**WP1 Average 3 years target**	**2008/2013**				
Average planned frequency of water supply interruptions	number	0.0461	0.052	0.136	0.08	0.09	0.10	0.09				
Average duration of unplanned water supply interruptions	minutes	63.6	99.38	152.39	105.12	125.89	92.00	125.89				
Average duration of planned water supply interruptions	minutes	127.7	104.50	111.44	114.55	107.97	160.00	114.55				
Number of customers experiencing 1 unplanned water supply interruptions in the year	number		1657	1734	1695.50	1695.50	no target	1700.00				
Number of customers experiencing 2 unplanned water supply interruptions in the year	number		423	460	441.50	441.50	no target	442.00				
Sewerage												
Sewerage blockages	per 100km	22.26	17.98	16.34	18.86	17.16	16.90	18.86				
Average time to attend sewer spills and blockages	minutes		32.82	27.48	30.15	30.15	53.00	30.15				
Average time to rectify a sewer blockage	minutes	47.71	78.49	75.40	67.20	76.94	67.00	76.94				
Spills contained within 5 hours	per cent	100	100.00	100.00	100.00	100.00	100.00	100.00				
Customers receiving 1 sewer blockages in the year	number		90	106	98.00	98.00	no target	98.00				
Customer service												
Complaints to EWOV	per 1000 Customers	9	0.6308	0.6102	3.41	0.62	0.05	0.62				
Telephone calls answered within 30 seconds	per cent		97%	96%	0.96	0.96	95.00	0.96				
Total of all complaints		679	573	478	576.67	525.50	673.00	525.50				
Property development agreements (No.)#												
Prepared			64	18	41.00	41.00		40.00	2009/10	2010/11	2011/12	2012/13
Non-prepared			125	140	132.50	132.50		100.00	90.00	80.00	70.00	70.00
Unaccounted for water	per cent	16.7	18.72	14.27	16.56	16.50	17.00	13.00	12.20.	11.40	11.00	10.00

Minimum flow rates (litres per minute) 20 for 20mm connection, 35 for 25mm, 60 for 32mm, 90 for 40mm, 160 for 50mm.

3.3.2 Additional Service Standards

EGW proposes to reduce the 'unaccounted for water' to 10% by the final year of the Water Plan. This equates to a 27.5% reduction in this target from the actual average results over the 2 year period. The reduction will be achieved by decreasing the amount of water used in water treatment processing and the amount of stored water lost through evaporation. The Corporation's off river storages are being covered to reduce evaporation and prevent water contamination caused by wind blown material and access by birds and other animals. New processes also are being implemented that limit the use of water for pipeline scouring and flushing.

A major program to detect water leakage from damaged pipes is also planned to reduce water loss through leakage. This program combined with the initiatives outlined above will assist in reducing the amount of unaccounted water (non revenue water) as defined by the ESC.

Greenhouse gas reductions/green energy (CO_2 equivalent emissions).

The Corporation proposes to reduce green house gas emissions by 5% during the course of Water Plan 2. The Corporation will focus on improving the accuracy of data collected to determine the amount of green house gas produced. The improved information can then be used to apply effective energy reducing programs that will lead to green house gas reductions. The program will aim to provide energy reduction targets based on energy per unit of output. This form of measure will provide a more accurate and effective target to reduce energy costs and to keep CO_2 equivalent emissions to a minimum.

The Corporation will maintain its 100% reuse water and biosolids reused targets.

The Corporation also aims to meet 100% requirements of environmental discharge licences.

Drinking water quality standards will remain 100% compliant.

Sewer backlog connections (small town sewerage scheme)

The Corporation aims to have all non residential and residential buildings connected to sewer by 2012/2013 for Bruthen and Cann River.

Town	No Outstanding Connections	Target	Target	Target	Target	Target
Bruthen	45	25	15	10	5	0
Cann River	40	20	10	6	3	0

Level of Service Objectives – Restrictions for the Future

East Gippsland Water's current level of service objectives for maintaining an adequate supply to customers are specified as follows:

- Moderate restrictions (Stages 1 & 2) are not desired more frequently on average than 1 year in 10; and
- More severe restrictions (Stages 3 & 4) are not desired more frequently than 1 year in 15.

Stage 1 and 2 restrictions tend to limit the times at which customers can utilise water for certain activities, whereas Stages 3 and 4 restrictions tend to affect the scope of activities that can be undertaken at any time. These restrictions are comparable with other non-metropolitan urban water authorities in Victoria and East Gippsland Water has already implemented permanent water saving measures consistent with the rest of the State.

Water restrictions for the future are not likely to be as a result of water quantity. Poor water quality from fire affected catchments are more likely to lead to water restrictions where intensive water treatment processes will be required to produce safe drinking water.

3.4 Guaranteed Service Levels (GSLs)

Guaranteed Service Level schemes (GSLs) require businesses to make notional payments to customers in instances where service performance does not meet defined service levels. The primary purpose is to provide an incentive for businesses to improve key aspects of service rather than compensate affected customers.

The Board of the Corporation resolved at its December 2006 meeting not to implement GSLs in this Water Plan. This decision was based on the advice that current practices adequately provide customers with sufficient opportunity to comment on service performance, and the cost to administer GSLs would outweigh any benefit at this time. GSLs will be considered in the next regulatory period, when a system may be established to link customer performance information with the Corporation's billing system.

Chapter 4 Revenue Requirement

This Water Plan provides for maintenance of our current service standard levels, which remain within the best performing group of all Water Authorities, demand reduction initiatives and targets for 'unaccounted for water'. The additional key outcomes that EGW are seeking for this second regulatory period are outlined below.

From a Capital works perspective these are:

- Completion of the Mitchell River Water Supply System (MRWSS). $38M of works are to be undertaken to finalise this $46M project. This will result in water quality improvements and changes to bulk transfer components (pipes, pumping stations and service reservoirs) to match growth in demand and meet regulatory compliance standards imposed by the Safe Drinking Water Quality Act 2003. The security of supply to 81% of the region's customers will be increased.
- Replacement of water pipelines and pumping stations at Lakes Entrance $0.85M. Asset renewal and growth demand are the key drivers for this project.
- Capital wastewater projects totalling $9.2M over the period to maintain the Corporation's 100% water reuse program and support renewal of pipeline assets. Further capital works to meet EPA obligations will be determined from the review of wastewater assets.

The imposts on operating costs for the second regulatory period include:

- Added expenditure associated with operating the new water treatment plants for the Mitchell River Water Supply System, as well as increases in business compliance and regulatory costs.
- Higher operating expenses for the small town treatment plants that will commence in 2007/2008.

The 2006/2007 Great Divide fires have contributed to abnormal capital and operating spending for 2006/2007. This is forecast to continue into 2007/2008, and perhaps even beyond this period.

The Corporation has also set targets in this Water Plan to:

- Reduce the average residential demand for water consumption from the current 2006/2007 average of 195kLs, to 190 kLs; and.
- Reduce 'Unaccounted for water' from the last 2 year average of 13.79% to 10% by year 5 of the plan.

This Plan also includes changes to the tariff structure for both water and wastewater. The water tariff has been adjusted to increase weighting in the volumetric component of the water charge that will send a better price signal to customers about their water use. A proposed common wastewater tariff is to be progressively implemented to achieve price equity across all systems for equivalent services.

Our hardship policy will include new processes to identify and contact customers so that assistance through a wide range of payment options can be adequately communicated to support customers to meet these price changes.

4.1 Overview of revenue requirement

The capital investment and operating costs contained in this Water Plan will lift the revenue requirement from $16.5M (2007/2008) to $23.1 M (2012/2013), a difference of $6.6 M. Therefore, the total revenue requirement for the five year period of the plan (NPV 5.1%) will be $96.26M. These figures have been developed using the 'building block' approach as discussed below.

The Corporation aims to invest $67 M (including $8M gifted assets) to meet renewals, growth, service improvements and compliance requirements for water and wastewater services. The implementation of a full water treatment facility for the Mitchell River Water Supply System (MRWSS) forms the bulk of this capital investment ($38M). This will complete this project, which commenced in the first regulatory period where $8.5M was allocated. The MRWSS project will result in fully treated water being delivered to the majority of the region's customers.

Operating costs are set to rise to address the increased expenditure required to service full water treatment plants. Operating cost increases for compliance and demand reduction initiatives will also be incurred.

The capital spending and increases in operating costs will result in an increase of 7.1% (at as 1 July 2007 prices) for both Water and Wastewater charges, each year of the five year water plan period. The overall impact to the customer over the 5 years will vary, with the average customer bill (both water and wastewater) expected to increase between 18% to 47% in real terms.

The 'Building Block' Approach

The Corporation has adopted the 'building block' approach to derive forward looking estimates of the revenue required over the period of the second Water Plan to deliver the proposed service standards and other outcomes. The approach uses operating expenditure and a deemed return on the Regulatory Asset Base (RAB) that is updated each year. The updated RAB reflects any additional capital expenditure net of contributions, asset disposable and regulatory depreciation.

Key components of the building block approach are detailed separately in later sections.

4.2 Operating Expenditure

Operating expenditure for this Water Plan has been forecast in the table below. Estimates have been made for 2007/2008 operating expenditure, which includes the increase in cost to extract and treat the bushfire affected Mitchell River water. Significant increases in the cost of treating this water to drinking standard, combined

with added expense of sourcing alternative water from bores, is reflected in both operating and capital expenditures.

Adjustments to determine the operating cost base 2006/2007 have been made as has a reconciliation of operating costs for 2007/2008.

Table 4A Operating Cost Outcomes

Details	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Water								
Operations & Maintenance	2.44	2.12	2.21	2.34	2.38	2.43	2.47	2.51
Bulk charges	-	-	-	-	-	-	-	-
Treatment	0.85	0.81	0.87	0.93	0.95	1.59	1.64	1.68
Customer Service and billing	0.30	0.31	0.37	0.38	0.39	0.39	0.41	0.41
GSL Payments	-	-	-	-	-	-	-	-
Licence Fees	-	-	-	-	-	-	-	-
Corporate	1.02	1.57	1.95	1.88	1.96	2.00	2.05	2.06
Other operating expenditure	0.46	1.61	1.24	0.23	0.26	0.22	0.22	0.22
Total Water	5.07	6.41	6.63	5.76	5.94	6.64	6.78	6.89
Sewerage								
Operations & Maintenance	1.68	1.20	1.38	1.47	1.50	1.52	1.55	1.57
Bulk charges	-	-	-	-	-	-	-	-
Treatment	0.80	0.87	0.89	0.96	0.97	0.98	0.99	1.01
Customer Service and billing	0.30	0.31	0.37	0.38	0.39	0.39	0.41	0.41
GSL Payments	-	-	-	-	-	-	-	-
Licence Fees	-	-	-	-	-	-	-	-
Corporate	1.04	1.59	1.97	2.04	2.02	2.06	2.11	2.12
Other operating expenditure	1.16	0.29	0.31	0.41	0.39	0.41	0.36	0.27
Total Sewerage	4.98	4.25	4.92	5.26	5.26	5.37	5.42	5.38
Sub Total Operating Costs	10.05	10.66	11.56	11.02	11.20	12.01	12.20	12.27
Environmental Contribution	0.56	0.57	0.59	0.67	0.67	0.67	0.67	0.67
Licence fees	0.05	0.04	0.05	0.06	0.06	0.06	0.06	0.06
Costs adjusted for 2006/2007 fires in the Mitchell River Catchment								
less Fire recovery works (other operating exp)		0.90	0.90					
add Expenses that would have been incurred without fires*		0.30						
Total net of fire costs to reach 06/07 base	10.66	10.67	11.30	11.74	11.92	12.73	12.93	13.00
Reconciliation of 2007/2008								
Fire recovery works (other operating exp)			0.90					
Expenses that would have been incurred without fires*			0.30					
Small town op costs			0.13					
Compliance costs			0.39					
Demand Reduction Costs			0.05					

Table 4B East Gippsland Water Proposed Budget for Second Regulatory Period

EAST GIPPSLAND WATER
East Gippsland Water Budget 2007/08 - 2012/13

	2005/06 ACTUAL	2006/07 ACTUAL	2007/08 FORECAST	2008/09 BUDGET	2009/10 BUDGET	2010/11 BUDGET	2011/12 BUDGET	2012/13 BUDGET
WATER								
REVENUE								
Water Tariff	3,136,130	3,495,705	3,757,000	3,991,655	4,167,716	4,346,209	4,526,156	4,736,152
Environmental Contribution	296,392	289,239	285,000	332,500	332,500	332,500	332,500	332,500
Metered Volume Charges	3,686,345	4,051,062	4,157,000	4,862,204	5,277,339	5,801,902	6,281,943	6,875,124
Water Tariffs & Charges	**7,118,867**	**7,836,006**	**8,199,000**	**9,186,359**	**9,777,554**	**10,480,612**	**11,140,598**	**11,943,776**
Interest Revenue - Tariffs & Schemes	24,069	11,155	10,000	10,000	11,000	12,000	13,000	14,000
Other Revenue	296,717	307,909	181,000	252,500	252,500	257,500	257,500	262,500
TOTAL REVENUE - WATER	**7,439,653**	**8,155,070**	**8,390,000**	**9,448,859**	**10,041,054**	**10,750,112**	**11,411,098**	**12,220,276**
EXPENSES								
Operations & Maintanence	3,328,152	3,081,406	3,077,000	3,274,000	3,340,000	4,031,000	4,115,000	4,201,000
Operations & Maintanence - Special	442,195	1,606,246	1,173,000	232,000	263,000	221,000	220,000	221,000
Depreciation - Infrastructure	1,975,456	2,021,773	2,191,673	2,426,073	2,947,873	2,999,573	2,999,573	3,139,873
Depreciation - Plant & Equip, Office Furniture	76,296	79,392	80,000	80,000	80,000	80,000	80,000	80,000
TOTAL EXPENSES - WATER	**5,822,099**	**6,788,817**	**6,521,673**	**6,012,073**	**6,630,873**	**7,331,573**	**7,414,573**	**7,641,873**
WATER OPERATING PROFIT / (LOSS)	**1,617,554**	**1,366,253**	**1,868,327**	**3,436,786**	**3,410,181**	**3,418,539**	**3,996,525**	**4,578,403**
WASTEWATER								
REVENUE								
Wastewater Tariff	6,973,999	7,760,434	8,209,000	8,792,013	9,498,920	10,312,692	11,078,745	11,744,867
Environmental Contribution	293,605	300,760	305,000	332,500	332,500	332,500	332,500	332,500
Volume Charges	89,730	121,475	115,000	116,733	123,108	130,060	137,589	145,747
Total Wastewater Tariffs & Charges	**7,357,334**	**8,182,669**	**8,629,000**	**9,241,247**	**9,954,528**	**10,775,251**	**11,548,834**	**12,223,114**
Interest Revenue - Tariffs & Schemes	13,222	7,699	10,000	10,000	11,000	12,000	13,000	14,000
Other Revenue	462,709	385,961	231,000	275,000	280,000	280,000	285,000	285,000
TOTAL REVENUE - WASTEWATER	**7,833,265**	**8,576,329**	**8,870,000**	**9,526,247**	**10,245,528**	**11,067,251**	**11,846,834**	**12,522,114**
EXPENSES								
Operations & Maintanence	2,376,181	2,090,885	2,271,000	2,431,000	2,469,000	2,504,000	2,542,000	2,581,000
Operations & Maintanence - Special	1,120,493	286,230	433,000	413,000	386,000	410,000	363,000	270,000
Depreciation - Infrastructure	2,224,974	2,271,797	2,378,797	2,532,297	2,582,297	2,632,297	2,682,297	2,732,297
Depreciation - Plant & Equip, Office Furniture	65,649	73,749	75,000	75,000	75,000	75,000	75,000	75,000
TOTAL EXPENSES - WASTEWATER	**5,787,297**	**4,722,661**	**5,157,797**	**5,451,297**	**5,512,297**	**5,621,297**	**5,662,297**	**5,658,297**
WASTEWATER OPERATING PROFIT / (LOSS)	**2,045,968**	**3,853,668**	**3,712,203**	**4,074,950**	**4,733,231**	**5,445,954**	**6,184,537**	**6,863,817**
CORPORATE								
REVENUE								
Gain on Assets Disposed	40,896	132	-			513,000	513,000	-
Interest on Investments	360,233	222,300	70,000	70,000	70,000	70,000	70,000	70,000
Other Revenue	245,486	179,497	140,000	155,000	155,000	155,000	155,000	155,000
TOTAL REVENUE - CORPORATE	**646,615**	**401,929**	**210,000**	**225,000**	**225,000**	**738,000**	**738,000**	**225,000**
EXPENSES								
Administration Expenses	3,050,006	3,000,286	3,949,000	3,969,000	4,027,000	4,111,000	4,210,000	4,230,000
Customer Service Expenses	588,551	619,175	739,000	752,000	770,000	784,000	811,000	825,000
Interest Expense (Including FAL)	-	11,000	800,000	2,000,000	2,400,000	3,000,000	3,000,000	3,000,000
Depreciation - Corporate Assets	317,199	326,498	330,000	730,000	730,000	730,000	730,000	530,000
Depreciation - Motor Vehicles	177,573	178,909	180,000	180,000	180,000	180,000	180,000	180,000
Environmental Contribution	590,000	590,000	590,000	665,000	665,000	665,000	665,000	665,000
Loss on Assets Disposed	68,721	278,318	500,000	50,000	50,000	50,000	50,000	50,000
TOTAL EXPENSES - CORPORATE	**4,792,050**	**5,004,186**	**7,088,000**	**8,346,000**	**8,822,000**	**9,520,000**	**9,646,000**	**9,480,000**
CORPORATE OPERATING PROFIT / (LOSS)	**(4,145,435)**	**(4,602,257)**	**(6,878,000)**	**(8,121,000)**	**(8,597,000)**	**(8,782,000)**	**(8,908,000)**	**(9,255,000)**
OPERATING PROFIT / (LOSS)	**(481,913)**	**617,664**	**(1,297,470)**	**(609,264)**	**(453,588)**	**82,493**	**313**	**2,187,220**
INCOME FROM CAPITAL WORKS								
REVENUE								
Headworks	221,789	206,252	141,000	285,000	292,000	270,000	273,000	256,000
Outfall	161,235	232,825	113,000	285,000	292,000	270,000	273,000	256,000
Gifted / Donated Assets	3,388,702	2,227,295	1,850,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
Government Contribution	-	105,455	-					
TOTAL REVENUE - CAPITAL WORKS	**3,771,726**	**2,771,827**	**2,104,000**	**2,170,000**	**2,184,000**	**2,140,000**	**2,146,000**	**2,112,000**
TOTAL PROFIT / (LOSS)	**3,289,813**	**3,389,491**	**806,530**	**1,560,736**	**1,730,412**	**2,222,493**	**2,146,313**	**4,299,220**

4.2.2 Key drivers of Operating Expenditure

Table 4C Key drivers of Operating Expenditure Summary

Key Driver	Details	Expenditure Type
Safe Drinking Water Quality Act 2003 Reduction in water quality complaints	The four new small water treatment plants, and the water pipeline extension from Lakes Entrance to Nowa Nowa, will incur increased treatment and maintenance costs to supply improved water quality to customers. The improved water will reduce water quality complaints from customers.	Water Operating and Maintenance
Safe Drinking Water Quality Act 2003 Reduction in Unaccounted for Water Reduction in Water Quality Complaints Improved service standard Asset efficiency improvements	The Corporation's major $35m capital investment project will have a large impact on prices over this regulatory period. The Mitchell River Water Supply System project is aimed at providing fully treated water to over 81% of the Corporation's customers. The project aims to deliver quality water with a much-reduced risk compared to the present water supply which is subject to disinfected treatment only. (Refer to Mitchell River Water Supply System Report Earth Tech November 2003, and GHD Report). Improved system monitoring. Increased costs associated with costs of treatment, labour, pumping and energy costs.	Water Operating and Maintenance
Safe Drinking Water Quality Act 2003	Increased water quality test costs.	Water Operating and Maintenance
Reduction in unaccounted for water	Water pipe leak detection program.	Water Operating and Maintenance
Wastewater management	De-sludging lagoons.	Wastewater Operating and Maintenance
EPA Regulatory Obligations	Investigation to reduce salt water infiltration.	Wastewater Operating and Maintenance
Reduction in wastewater spills	Investigation to reduce stormwater infiltration into sewer system.	Wastewater Operating and Maintenance
DHS Regulatory Obligation	Increased Water Quality Risk Management Audits.	Corporate
Asset Management	Asset Condition and Risk Assessment Program.	Water and Wastewater Operations and Maintenance
Staff Recruitment, Vic State Government surveys, Privacy legislation, FOI	Human Resources position.	Corporate
Demand Reduction Strategies Customer communications	Water savings, education, community programs, surveys.	Corporate
Risk Management	Risk Management System Licence.	Corporate

4.2.3 Justification of forecast Expenditure levels

Expenditure forecasts have been determined to meet growth demand, water quality improvements, service level standards and new obligations. Future expenditure for Capital projects are supported by the Water Supply Demand Strategy[7] whilst the Mitchell River Water Supply System project is supported by an extensive review and reports[8] for the sustainable delivery of high quality water and improvements in security of water supply. Other Capital projects form the ongoing asset renewals and replacement program for best asset efficiency and performance aimed at meeting the statutory requirements of the Statement of Obligations, and servicing future growth.

Unexpected Capital costs as a result of the 2006/2007 Great Divide fires have also added to the Capital cost base.

Operating expenditure increases have resulted from a range of drivers, including:

- Extra requirements to service new full water treatment plants treatment, maintenance and operating costs;
- Costs incurred as a result of water demand reduction initiatives – publicity, publications, marketing and advertising;
- Extra costs in meeting statutory and regulatory compliance;
- Asset replacement and efficiency management;
- Operating costs associated with the 2006/2007 fires; and
- Increases in audit and insurance costs

4.2.4 Productivity Improvements over the Period

The Corporation has a well-developed Work Issue Resolution Process (WIRP), where staff are encouraged to provide innovative solutions to improve work functions and efficiency.

This program has been successful in finding savings across a range of operations and will assist EGW to reach a productivity savings target of $1.6M, as shown in the table below.

Some specific operating expenditure has been excluded from productivity savings (shown in Table 4D). The exclusions are for tasks that have only been recently added as operational activities and as such, would be difficult to obtain productivity savings from. The table also provides a summary of where productivity savings may be achieved.

[7] East Gippsland Water, Water Supply Demand Strategy prepared with the assistance of Sinclair Knight Merz may 2007

[8] Mitchell River Water Supply System, Bulk Delivery & Water Quality Improvement Earthtech November 2003

Table 4D Productivity Savings Target for Water Plan 2

Details	ANNUAL 2008/2009 BUDGET	ANNUAL 2009/2010 BUDGET	ANNUAL 2010/2011 BUDGET	ANNUAL 2011/2012 BUDGET	ANNUAL 2012/2013 BUDGET
	$	$	$	$	$
Operations & Maintenance – Water	3,274,000	3,968,000	4,071,000	4,166,000	4,262,000
Operations & Maintenance – Waste	2,431,000	2,329,000	2,365,000	2,402,000	2,442,000
Special O&M – Water	232,000	263,000	221,000	220,000	221,000
Special O&M – Waste	413,000	402,000	410,000	363,000	270,000
Corporate Expenditure	5,386,000	5,462,000	5,560,000	5,686,000	5,720,000
Total Operational Expenditure	11,736,000	12,424,000	12,627,000	12,837,000	12,915,000
Less Items not considered to be included for Productivity Savings					
Environmental Contribution	665,000	665,000	665,000	665,000	665,000
DHS Water Quality Risk Management Plans – Auditing	10,000	10,000	10,000	10,000	10,000
Insurance – EGW will not reduce coverage to achieve productivity savings	160,000	165,000	170,000	175,000	180,000
Licence Fees – Essential Service Commission	20,000	20,000	20,000	20,000	20,000
Licence Fees – Environmental Protection Agency	15,000	15,000	15,000	15,000	15,000
Costs associated with introduction of new Finance/Billing System	100,000	100,000	100,000	100,000	100,000
Staff costs associated with HR, AM and Sustainability	135,000	137,000	139,000	141,000	143,000
4 new water treatment plants – treatment cost increases	44,000	44,000	44,000	44,000	44,000
Increased Costs with introduction of MWSSA projects	120,000	120,000	619,000	619,000	619,000
Total Expenditure Items to be removed from OPEX for productivity savings	1,269,000	1,276,000	1,782,000	1,789,000	1,796,000
Total OPEX Productivity Savings to be applied	10,467,000	11,148,000	10,845,000	11,048,000	11,119,000
Productivity Savings 1% per annum cumulative	105,000	216,000	324,000	434,000	545,000
Total Productivity Savings across Water Plan 2009 – 2013	**1,624,000**				

Productivity savings may need to be reviewed when considering over/under revenue/expenditure results from operations in the first regulatory period.

4.3 Capital Expenditure

The Corporation plans to spend $67.3 M in Capital Expenditure during the 5 year period of this Water Plan. Capital Expenditure for water supply projects is forecast to be $49.8 M, wastewater projects $13.2M, and $4.3M for corporate capital projects.

4.3.1 Overview of Capital Expenditure

A summary of capital expenditure forecasts for each year of the regulatory period is provided in the table below:

Table 4E Capital Expenditure Summary

Cost Driver	ANNUAL 2005/2006 ACTUAL	ANNUAL 2006/2007 ACTUAL	ANNUAL 2007/2008 FORECAST	ANNUAL 2008/2009 BUDGET	ANNUAL 2009/2010 BUDGET	ANNUAL 2010/2011 BUDGET	ANNUAL 2011/2012 BUDGET	ANNUAL 2012/2013 BUDGET
Renewals	2089726	1321427	6360600	4452500	2671305	3351415	2668731	2827153
Compliance	958458	11210054	6756000	20000000	11862000	100000	175000	75000
Growth	2284120	2396599	2405000	4225000	400000	570000	250000	150000
Improved Service	1154738	2282737	1305000	936340	426340	426340	226340	376340
Sub-Total	6487042	17210817	16826600	29613840	15359645	4447755	3320071	3428493
Gifted Assets	3600842	1886739	1900000	2655000	2705000	2200000	2000000	1600000
Total	10087884	19097556	18726600	32268840	18064645	6647755	5320071	5028493

The largest expenditure allocation has been made for the Mitchell River Water Supply System (MWRSS) project ($38M). The MRWSS project is planned to meet the requirements of both the Safe Drinking Water Act and asset renewals and growth.

Owner's works spending is forecast at $8.0M, which is evenly distributed between water and wastewater supply projects.

Wastewater expenditures have been allocated to:

- The Lakes Tyers Aboriginal Trust sewerage system upgrade $1.1M;
- Tambo Bluff sewerage service $1.2M
- Banksia Peninsula sewerage service; and
- Dinner Plain alternative irrigation scheme $1.0M.

Proposed Capital projects by service and location are included as an attachment in Appendix D (attached).

4.3.2 Key drivers of Capital Expenditure

Table 4F Major proposed Capital Expenditure drivers, description and targets

Project drivers	Project description	Outputs to be achieved within the regulatory period
Mitchell River Water Supply System Strategy Works[9],[10]		
Water quality improvements and bulk water transfer augmentation to meet growing demand over the next 25 years. Security of supply. Improved water quality and service to supply water with improved water security and quality. Improve water quality and reduce health risks from open storage basins which will be covered. Works to meet demand from Water Supply Demand Strategy.	Total Investment for Mitchell River Water Supply System during the second regulatory period $38M (EGW Water Supply Demand Strategy pages 84 – 102) Continuation of the project that commenced in the first Water Plan. Various projects to be completed during each year of the Water Plan During the second regulatory period the project is likely to involve finalisation of the construction of a water treatment plant at Woodglen Reservoir $16.7M and Toorloo Reservoir $5.6M (based on preliminary cost estimates). (both 2008/9 – 2009/2010) Design and construction of Woodglen No 2 Reservoir $9.56M (2008/9 – 2009/2010). Replace Sarsfield storage with tanks 2008/2009 $2M Replace Sunlakes water storage with tanks 2009/2011 $1.1M Sarsfield main supply pipeline upgrade (2010/2011) $1.6M Eagle Point main supply pipeline upgrade $1.0M Eagle Point Tank upgrade $1M	Mitchell River Water Supply System projects – continued from previous Water Plan. Water quality projects to be delivered over the 2nd regulatory period.
Renewals/Replacement		
Water Augmentation	Project Description	Outputs to be achieved within the regulatory period
Growth	Eagle Point main supply water pipeline upgrade and Rupert Street Booster pump station augmentation due to growth and replacement of ageing assets.	Eagle Point: new pump station and connecting mains (associated with the Mitchell River Water Supply System Strategy Works) 2012/2013 ($1M).
Maintain service levels	Replace ageing water reticulation mains in various water supply systems $1.25m (250K for each year of the Water Plan).	Reticulation various kms

[9] Mitchell River Water Supply System, Bulk Delivery & Water Quality Improvement Earthtech November 2003.
[10] Mitchell River Water Quality Improvements: Preferred Option Detailed Analysis July 2006 Status Report, Earthtech July 2006.

Sewerage Augmentation		
Growth	Tambo Bluff backlog sewerage scheme	Tambo Bluff $1.2M (2008/2009) Completion of works commenced during the first regulatory period.
	Banksia Peninsula	Completion of works commenced during the first regulatory period
	Alternative Irrigation Scheme Dinner Plain	Plan/design and construct alternative irrigation scheme for Dinner Plain $0.4M 2008/2013 (subject to detailed design and funding).
	Diversion of Kalimna sewers to E pump station	$350K (2008/2009)

4.3.3 Prudent and efficient Capital Expenditure levels

Capital Expenditure proposals will lead to improvements in both service and compliance outcomes, and represent prudent expenditure. The Mitchell River Water Supply System Capital Project has involved extensive research and consultants reports that support the upgrading of this system. These include:

- Mitchell River Water Supply System, Bulk Delivery & Water Quality Improvement, Earth Tech November 2003;
- Mitchell River Water Supply - New Water Treatment Plant Siting Options, Earth Tech December 2004;
- Mitchell River Water Quality Improvements - Preferred option Detailed Analysis July 2006 Status Report, Earth Tech July 2006; and
- Independent Assessment of Mitchell System Water Quality Improvement, GHD March 2006.

4.4 Financing Capital Investments

Borrowings of $24M have been included in this Water Plan, taking total borrowings to $40M by the end of the second regulatory period. The value of the revenue for financing the cost of these borrowings is included in the Weighted Average Cost of Capital (WACC), which is applied to the RAB.

4.4.1 Updating the Regulatory Asset Base (RAB)

The table below shows the calculation of the value of the RAB across the regulatory period and as at 1 July 2008. Capital Expenditures have been estimated for the 2008 financial year.

Table 4G Regulatory Asset Base for the First Regulatory Period

Rolled forward asset base ($M)	2004-05	2005-06	2006-07	2007-08
Opening asset base	37.63	41.60	45.19	58.08
plus Gross Capex	6.63	6.300	17.21	16.83
Less Government Contributions			1.29	
less Customer contributions	0.90	0.37	0.44	0.25
less Proceeds from disposals	0.23	0.29	0.15	0.30
less Regulatory depreciation	1.52	2.05	2.45	2.88
Closing asset base	**41.60**	**45.19**	**58.08**	**71.48**

4.4.2 Rolling forward the Regulatory Asset Base (RAB)

The RAB for the second regulatory period is proposed in the table below. The WACC is to be provided, but the assumption to date is 5.1%.

Table 4H Proposed Regulatory Asset base for the Second Regulatory Period

Rolled forward asset base ($M)	2008-09	2009-10	2010-11	2011-12	2012-13
Opening asset base	71.48	97.17	107.77	107.07	105.04
plus Gross Capex	29.61	15.36	4.45	3.32	3.43
less Customer contributions	0.57	0.58	0.54	0.55	0.51
less Proceeds from disposals	0.30	0.30	0.30	0.30	0.30
less Regulatory depreciation	3.06	3.88	4.30	4.51	4.69
Closing asset base	**97.17**	**107.77**	**107.07**	**105.04**	**102.97**

As reported in Chapter 2 (2.2 Delivery of key Capital projects) the Corporation has reported an average actual Capital Expenditure to budget result of 95% over the last five years. Capital spending in 2006/2007 and 2007/2008 is expected to be overspent by 157% and 165% respectively. This is due to bringing forward works on the MRWSS project and other temporary works to address water quality issues associated with the 2006/2007 Great Divide fires. EGW is confident that it will meet the forecast Capital Expenditure targets included in this Plan.

4.4.3 Weighted Average Cost of Capital

The Weighted Average Cost of Capital (WACC) is the return that the Corporation seeks to earn from the Regulatory Asset Base. A WACC of 5.1% (20 day period from 7 Feb to 6 March 2007) is assumed for the purposes of calculating this amount.

Real post tax WACC						
Real Risk Free Rate	Equity beta	Market risk premium	Debt Management	Financing structure	Franking credit value	WACC
(per cent)	(B)	(per cent)	(per cent)	(per cent)	(Y)	(per cent)
2.6	0.75	6.00	1.11	60	0.5	5.1

4.5 Taxation

During the second regulatory period it is estimated that no tax will be payable under the National Tax Equivalents Regime.

Chapter 5 Demand Forecasts

5.1 Overview of Demand Forecasts

Future climate change predictions and the impact of the current drought have heightened the need for improved planning to manage water use for the region. A Water Supply Demand Strategy has been produced to assist with the Corporation's assessment of long term issues surrounding water scarcity, future growth and water use reduction programs.

Information from the 'Victoria in Future 2004' forecasts, the Corporation's own historical data and the Corporation's Supply Demand Strategy have been used to provide new customer growth forecasts[11].

5.2 Summary of Demand Forecasts

Population Growth and Customer Numbers

The 2001 Australian Bureau of Statistics (ABS) Census assessed the population of towns in East Gippsland to be 38,082. In total, East Gippsland Water provides services to around 31,000 people including residents of Dinner Plain.

ABS figures show that East Gippsland's population increased by 1,563 during the 10 year period to 2001 and a further 1,955 to 2006. The last 5 year increase in population shows a growth rate of 5.1% or approximately 1% per annum.

The 2001and 2006 Census also reveal that the composition of East Gippsland's population have changed. The increase in median age was attributed to two factors; an influx of older people to the area combined with an exodus of younger people. This is also reflected in 'Victoria in Future 2004' - the State Government's current population projections, and the projections used for the Water Supply Demand Strategy.

'Victoria in Future 2004' reports that the population for the East Gippsland region is projected to grow at an average annual rate of .08 per cent, or 1,607 persons, between 2001 and 2006 and .07 per cent, or 1,441 persons, between 2006 and 2011. This rate will then reduce to .06 percent annually up to 2016[12], slightly below the growth anticipated for regional Victoria at .79 per cent.

The 'Victoria in Future 2004' *change in household* projections provides a more useful statistic in determining the number of new connections and therefore future Capital Investment required to service new East Gippsland Water customers. 'Victoria in Future 2004' reports the projected net average annual growth in households for the Shire of East Gippsland as 1.5 per cent between the period 2001 and 2011. This will then reduce to 1.4 per cent from 2011 to 2016.

The real growth in connections to EGW's water supply network during the period 2001/2002 to 2006/2007 was 1,706, an average annual rate of 1.8 per cent. The growth predicted in the

[11] East Gippsland Water, Water Supply Demand Strategy op cit
[12] Victoria in Future 2004 Summary Department of Sustainability and Environment

Corporation's first Water Plan generally matched the forecast results (see Table 5A), with only the more recent years showing strong water assessments growth.

The region's major urban areas hug the picturesque South Eastern Victorian coast line and the Gippsland Lakes. It is a natural environment for people to embrace a sea change, particularly appealing to retirees. The 'Victoria in Future 2004' report identifies a change in aged population for the future, with East Gippsland estimated to have 13,791 people aged over 60 in the next 30 years . This group will comprise 49.8%, compared to the present 19.5%, and supports the growth in population from retirees moving to the area.

For future analysis, customer assessment predictions will be replaced with estimated numbers of customer connections. Customer connection numbers are the primary growth driver used by the Essential Service Commission. The use of 'connections' instead of 'assessments' has been used to in this water plan to appropriately gauge customer outcomes in receiving water services.

Table 5A Comparative analysis actual vs forecast growth for water assessments during the First Regulatory Period

Year	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007
Water Assessments forecast – Water Plan 1	1%	2.40%	2.30%	1.50%	1.00%
Actual Assessment Nos	2%	2.27%	2.19%	2.19%	1.61%

Actual water assessments were slightly above forecast for the first 2 years of WP1 but indicate a downward trend from 2.19% to 1.61% (2004/2005 to 2006/2007). This pattern is also reflected with actual residential water connection growth over the five year period from 2001/2002 in Table 5B (next page) that indicates a weakening from a yearly high of 2.42% in 2003/2004 to 1.50% in 2005/2006 and 1.98% in 2006/2007. The relative softening of water connections in the current period and the projected population forecast in the 'Victoria in Future 2004' report, have been taken into consideration to determine the growth in water connections for this five year Water Plan. 'Victoria in Future' forecasts a growth in population of 0.8% and in households of 1.5%. This growth in households is more characteristic of the new water customer connection growth experienced by the Corporation; therefore this estimate adjusted using actual historical results has been used in planning for demand for WP2. Growth for residential water connections in WP2 has been forecast at 1.70% for 2008/2009 gradually reducing to 1.47% in the final year of the plan.

Growth estimates for non residential connections for the region remain largely uncertain and for this reason a modest growth rate of around 1% based on an adjusted average has been used in the plan for this customer group.

Table 5B Comparative Analysis - Actual EGW Connections and Victoria in Future 2004 Growth Forecasts

Year	2003/2004	2004/2005	2005/2006	2006/2007	Average change over last 4 years
Total Water Connections Nos.	19024	19382	19666	20025	353
Residential	16286	16552	16800	17132	308
Non Residential	2738	2830	2866	2893	45
Properties available for connection	1760	1858	2039	2029	80
Total Water Assessments	20784	21240	21705	22054	433
% Actual Change in Nos Residential Water Connections	2.42	1.63	1.5	1.98	
% Actual Change in Nos Residential Water Connections	.92	3.36	1.27	.94	
% Actual change in Nos water assessments per annum	2.27	2.19	2.19	1.61	1.99
Total Wastewater Connection Nos	15,106	15,436	15,800	15,800	318
Residential	13,343	13,566	13,920	13,920	262
Non Residential	1,763	1870	1,880	1,880	56
Unconnected Properties	1,875	2,190	2,363	2,363	194
Total Wastewater Assessments	16981	17626	18163	18163	512
% Actual change in Nos wastewater connections per annum	1.75	2.18	2.36	1.44	1.93
% Actual change in Nos wastewater connections per annum – Residential	1.60	1.67	2.61	1.59	1.87
% Actual change in Nos wastewater connections per annum – Non Residential	2.92	6.07	0.53	0.32	2.46
% Actual change in Nos wastewater assessments per annum	2.13	3.80	3.05	1.68	2.66
Forecast Victoria in Future % Change in Households* (net)	1.20	1.20	1.50	1.50	1.35
Forecast Victoria in Future % Change in Population	0.80	0.80	0.80	0.80	0.80

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A similar forecast rate of increase has been used for both water and wastewater, as it follows that any new dwelling will require connection to both services. Some minor rate forecast differences between water and wastewater are as a result of properties available for connection. These available connections are expected to decrease slightly over the period of the WP2 where they will shift from being available to become a connection

Table 5C Comparative Forecast Growth for Water Plan 2

Year	2006/2007	Estimated 2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
Total Water Connections Nos.	20025	20370	20696	21020	21335	21644	21947
Residential	17132	17445	17742	18036	18321	18600	18872
Non Residential	2893	2925	2954	2984	3014	3044	3074
Properties available for connection	2029	2029	2029	2029	2029	2029	2029
Total Water Assessments	22054	22399	22725	23049	23364	23673	23976
Total Wastewater Connection Nos	16027	16303	16567	16829	17084	17337	17581
Residential	14141	14387	14632	14875	15110	15343	15568
Non Residential	1886	1916	1935	1955	1974	1994	2014
Unconnected Properties	2441	2439	2436	2434	2431	2429	2426
Total Wastewater Assessments	18468	18742	19003	19263	19515	19765	20008
Change in total connections for water per annum	1.83%	1.72%	1.60%	1.56%	1.50%	1.45%	1.40%
Change in connections water - Residential	1.98%	1.83%	1.70%	1.66%	1.58%	1.54%	1.47%
Change in connections water - Non Residential	0.94%	1.11%	1.00%	1.00%	1.00%	1.00%	1.00%
Change in connections for wastewater per annum	1.44%	1.50%	1.60%	1.54%	1.48%	1.42%	1.38%
Change in connections for wastewater - Residential	1.59%	1.74%	1.70%	1.66%	1.58%	1.54%	1.47%
Change in connections for wastewater - Non Residential	0.32%	1.57%	0.99%	0.99%	0.99%	0.99%	0.99%
Forecast Victoria In Future % Change in Households (net)	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Forecast Victoria In Future % Change in Population	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%

5.3 Individual Demand Forecasts

Demand forecasts for the period of this Water Plan have been calculated for each of the following groups:

- Urban water volume;
- Customer numbers;
- Trade waste volumes;
- Miscellaneous services;
- Number of developer charges; and
- Equivalent Tenement Units of Use (EQTs)

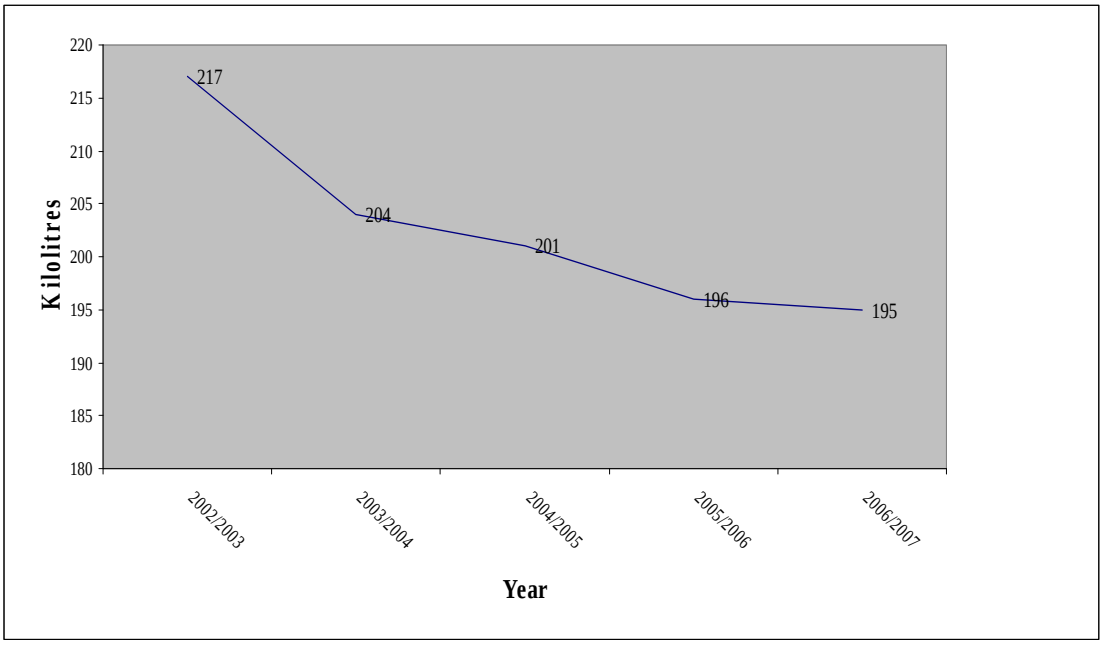
The Corporation has a 100% wastewater reuse target and has met this target for over 10 years. Reuse water is generally irrigated onto pasture and tree lots on Corporation owned farms and plantations. Recycled water is also provided to golf clubs, private farms and race courses at a nominal cost. Some small-scale schemes substituting potable with reuse water for recreation reserves will be implemented in the future.

5.3.1 Urban Water Use

Demand for urban water volumes is set to increase 4.3% over the period of this Water Plan. This demand has been determined from available historical data.

Overall water consumption by East Gippsland Water customers has been reduced by around 5% since 2002/2003. Whilst the number of customer water connections increased by 988 (actual and estimated for 2007/08) in the first regulatory period, the average demand per residential customer decreased from 217 kL in 2002/2003 to 195kL in 2006/2007 (See Chart 5A below).

Chart 5A Average Residential Water Customer Consumption



The Corporation's Water Supply Demand Strategy provides the background detail of the forecast demand for urban water. The Strategy includes demand as a result of projected population growth and expected growth in connections. It also considers actions to reduce demand, aimed at improving sustainable water outcomes.

The Strategy also provides detail about the complexity of accurately determining the region's population, particularly with reference to the Mitchell River Water Supply System (81% of the regions customers). The population in the Mitchell River system rises significantly during summer, with an influx of tourists. It is difficult to accurately estimate exactly how many visitors there are in the towns of this region on a given day, with many visitors only stopping briefly to use toilet facilities or to have a meal. Greater tourist numbers also occur on weekends and public holidays. Whilst specific information on visitor numbers is unknown; Meinhardt[13] reported unoccupied dwellings in winter being 22% of all dwellings in Lakes Entrance, and 39% of all dwellings in Lake Tyers. This indicates a potential peak population of around 20-40% higher than in winter, when the Census is undertaken, without taking into account visitors who do not stay overnight in the region.[14]

The Corporation intends to reduce to average demand for water and a decrease the amount of non billed water during the course of WP2. This will see an easing on demand to source more water and provide greater environmental benefits. The average residential customer consumption is planned to drop from an average of 195 kL to 190kL, or 1 kL per annum (an overall reduction of 2.5%) with a decrease of 3 kL per annum (2.6% reduction) forecast for the average non residential water connection.

Over the last four years the amount of 'non billed for water' produced by EGW has been substantially reduced (approximately 55%). It is therefore proposed that efforts to further reduce this measure will continue, even though it is recognised that the task to reduce 'unbilled for water' becomes more difficult with every year savings are produced. Ageing water infrastructure and asset deterioration will increase the potential for bursts and leaks whilst the need to implement more scouring and flushing programs to maintain a clean water transfer pipeline network, will challenge this target.

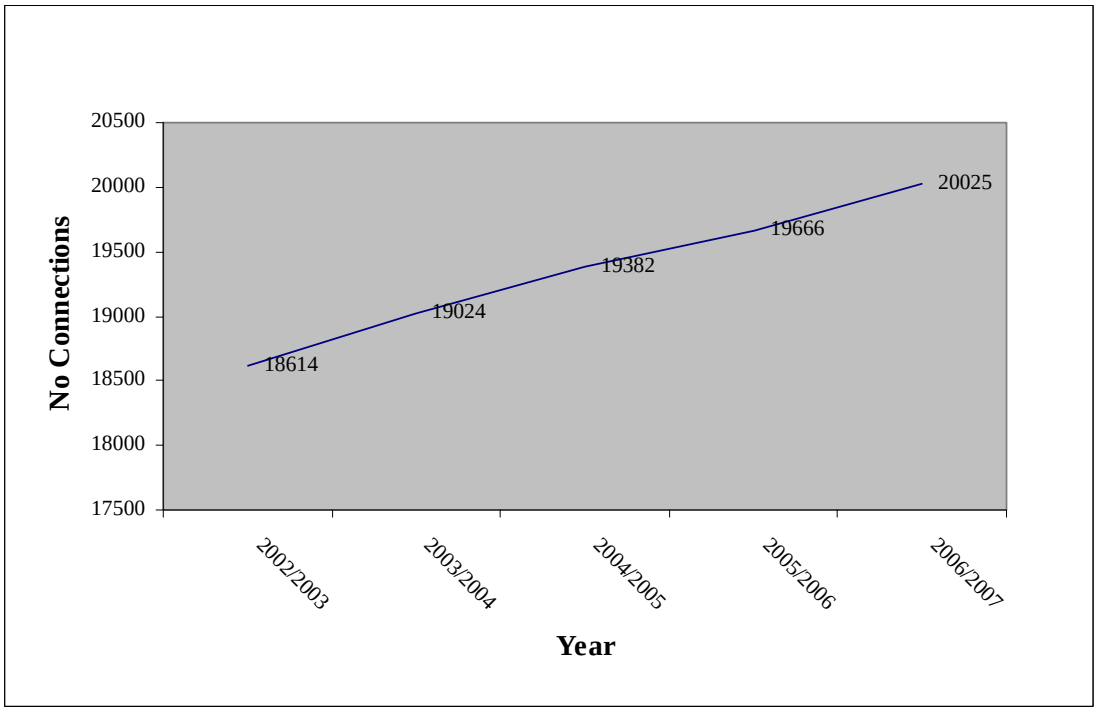
The Corporation proposes to reduce the amount of 'non billed for water' from 13% in 2006/2007 to 10% by 2012/2013

The overall effort to reduce water consumption through demand reduction strategies will lead to long term resource sustainability and reduced water treatment costs. Chart 5B on the next page shows the increase of water supply connections over the last five year period.

[13] Meinhardt Infrastructure and Environment (2006) Lakes Entrance Urban Design Framework, May 2006. Prepared for East Gippsland Shire, Wellington Shire and the Department of Sustainability and Environment.

[14] East Gippsland Water – Water Supply Demand Strategy Prepared for East Gippsland Water with the assistance of Sinclair Knights Merz (May 2007).

Chart 5B Number of Water Customer Connections



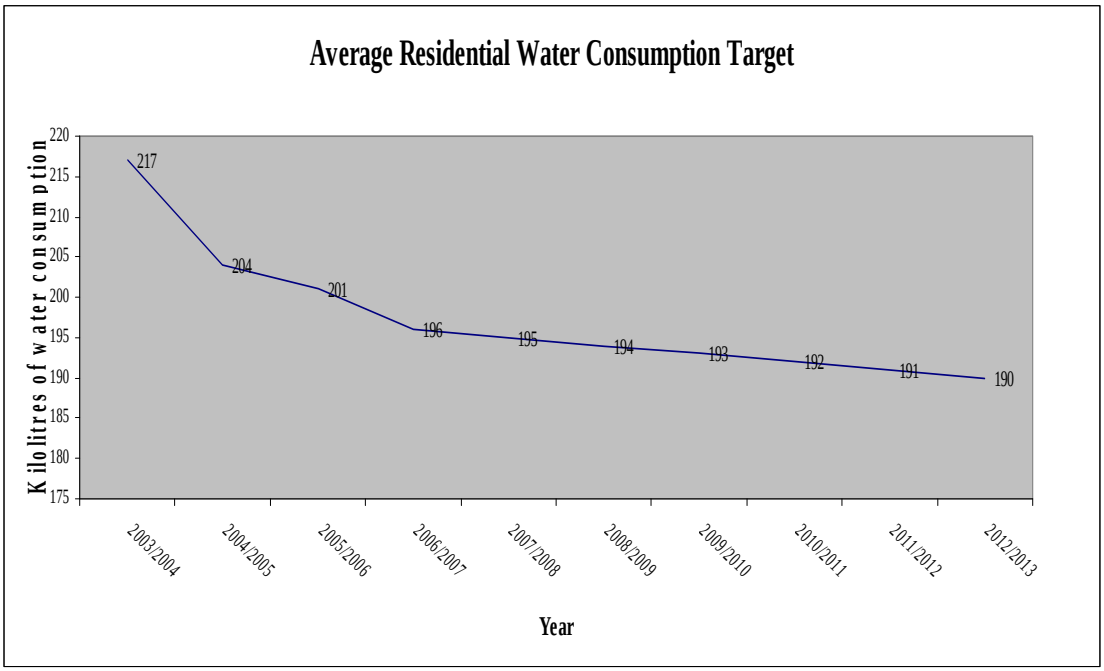
During the second regulatory period, total connections are forecast to increase by 1,576 or approximately 7.7%. Residential customers connections are forecast to increase by 1,427 (8.3%), with non residential customer connections increasing by 149 (5.1%). The forecast amount of sourced water to meet these supplies will be 6,047 ML, an increase of 73ML (15 ML per annum), or only 1.2% over the WP2 period. These increases are consistent with the demand forecasts included in the Corporation's Water Supply Demand Strategy.

Table 5D Water Demand Growth Forecasts

Year	Nos Residential Customers	Nos Non Residential Customers	ML Water not Billed % target	ML Residential Consumption	ML Non-Residential Consumption	ML Total Water Consumption
2008/2009	17,742	2,954	13.0	3,438	1,817	5,255
2009/2010	18,036	2,984	12.2	3,478	1,826	5,304
2010/2011	18,321	3,014	11.4	3,516	1,835	5,350
2011/2012	18,600	3,044	11.0	3,552	1,844	5,396
2012/2013	18,872	3,074	10.0	3,586	1,853	5,440

The Corporation's demand reduction initiatives propose a decrease of 0.5% per annum in the average residential consumption or one kilolitre for each year of the Water Plan. This is shown in the table below.

Chart 5C Average Residential Water Consumption Target for the Second Regulatory Period



Demand Reduction Initiatives

East Gippsland Water will actively pursue demand reduction in each of its supply systems. The Corporation has set a demand reduction target in line with targets set by the State Government for other Victorian Water Corporations:

- A 25% reduction in per capita demand by the year 2015 relative to 1990s average demand; and
- A 30% reduction in per capita demand by the year 2020 relative to 1990s average demand.

Assuming that the 22% reduction in per capita demand observed in Melbourne has already been achieved in East Gippsland, East Gippsland Water requires a 3% reduction in per capita demand from its customers by the year 2015, and an 8% reduction in demand per capita by the year 2020. (Reference East Gippsland Demand Supply Strategy April 2007). The demand reduction amounts include a reduction target of 0.5% per connection for each year of the plan. This equates to a per capita reduction of 4% over the period and when added to the assumed reduction of 22%, is above the reduction target of 25%.

This reduction means that each residential household connection will reduce their average water use by 1 kilolitre for each year of the Plan.

Future Growth Demands

Changes to customer behaviour in order to achieve this target will focus on programs promoting greater awareness of the need to conserve water, and projects encouraging increased use of water saving devices in households. Such devices may include water tanks, grey water recycling systems and water saving shower heads.

Consumer behaviour will also be influenced by public education programs promoting water savings and be supported by a general increase in customer awareness of the impacts of the varying climatic conditions on water resources. Legislative regulations requiring new housing to have a five star energy efficiency rating will also contribute to change consumer behaviour towards water consumption as broader sustainability principles are better understood.

EGW's Water Supply Demand Strategy assumes a 2% reduction in demand from 2005/2006, due to the implementation of Permanent Water Savings Rules (consistent with the Melbourne metropolitan experience), and a further reduction of 3.9% between 2010 and 2020, (reference: EGW WSDS Table 4.2 Future Demand Reduction Activities).

5.3.2 Customer (Fixed Charge) Numbers

The actual growth, based on the Corporation's own historical information combined with the estimates in the increase of households from 'Victoria in Future 2004', has been used to project the expected rise in demand for the five year period of this Water Plan (see Table 5E).

Table 5E Connection and Assessment actual and forecast Growth Demand and Targets for the Second Regulatory Period

Details		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Connections %			2.2	1.88	1.47	1.83	1.72	1.60	1.56	1.50	1.45	1.40
Assessments Nos % change		1.95	2.27	2.19	2.14	1.61.	1.57	1.45	1.42	1.37	1.32	1.28
Victoria in Future 2004 % Change	Population				0.7	0.8	0.8	0.8	.08	0.8	0.8	0.8
	Households				1.50	1.50	1.50	1.50	1.50	1.40	1.40	1.40

More detailed information on demand can be found in the Corporation's Water Supply Demand Strategy, however, the table below (5F) summarises the forecast demand growth by customer group.

Table 5F Forecast Demand Growth Used for Water Plan 2 (%)

Year	Customer Group	2005/06 Actual	2006/07 Actual	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Water	Residential	1.50%	1.98%	1.83%	1.70%	1.66%	1.58%	1.54%	1.47%
	Non Residential	1.27%	.94%	1.11%	1.0%	1.0%	1.0%	1.0%	1.0%
Waste water	Residential	2.61%	1.59%	1.74%	1.70%	1.66%	1.58%	1.54%	1.47%
	Non Residential	.53%	.32%	1.11%	.99%	.99%	.99%	.99%	.99%

5.3.3 Sewerage Forecasts

The Corporation applies an Equivalent Tenement (EQT) basis for determining the customer service price for wastewater. (EQT is applied to all wastewater districts except for Dinner Plain where charges are determined by assessment and water volume usage). The EQT is a unit of measure that assumes a standard unit charge based on normal household use. EGW has based the allocation of EQTs on the Water Authorities Reference Manual (WARM) 1987, where households, motels, caravan parks are assigned EQTs using customer data on numbers of cisterns and fixtures, sites, and metered water usage. The EQT methodology has been continually updated and currently a review of EQTs applied to caravan parks is underway to ensure that the correct EQT is charged to this group of customers.

The use of WARM in the allocation of EQT is an attempt to apportion the cost of services based on actual customer service use as it also allocates costs on peak usage demand. This is an important consideration for regions that have a high proportion of tourists, such as East Gippsland. In this regard, wastewater expenditure correlates strongly to the cost of infrastructure, which is determined by peak usage rather than average annual flows.

Customer demand for wastewater services over the period of this Water Plan is based on information and analysis from the Water Supply Demand Strategy and precursor work to the Wastewater Supply Strategy. Wastewater connection growth assumes the same growth rate as applied to new water customers. The Corporation does not plan any sewerage scheme developments that will be independent of water connections in this Plan, therefore the correlation of one water to one wastewater connection will hold under this scenario (Table 5G –next page).

Table 5G Wastewater Demand Growth

Details	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
Total Wastewater Connection Nos	14,609	14,846	15,106	15,436	15,800	16,051	16,306	16,567	16,829	17,084	17,337	17,581
Residential	12,908	13,133	13,343	13,566	13,920	14,141	14,387	14,632	14,875	15,110	15,343	15,568
Non Residential	1,701	1,713	1,763	1,870	1,880	1,910	1,916	1,935	1,955	1,974	1,994	2,014
Unconnected Properties	1,678	1,781	1,875	2,190	2,363	2,441	2,439	2,436	2,434	2,431	2,429	2,426
Total Wastewater Assessments	16,287	16,627	16,981	17,626	18,163	18,492	18,742	19,003	19,263	19,515	19,765	20,008
Equivalent Tenement Units (EQTs)												
Buildings												
Residential					14,418	14,647	14,902	15,155	15,407	15,651	15,892	16,125
Non Residential					3,193	3,203	3,239	3,271	3,303	3,336	3,369	3,402
Multi Services/ Vacant Land												
Residential					2,709	2,752	2,800	2,848	2,895	2,941	2,986	3,030
Non Residential					133	133	135	136	138	139	140	142
Summary EQTs												
Buildings					17,611	17,850	18,141	18,426	18,710	18,986	19,261	19,527
Multi Services/ Vacant Land					2,842	2,885	2,935	2,984	3,032	3,080	3,126	3,171
Increase per annum EQT Nos												
Buildings												
Residential						2229	255	253	251	244	241	233
Non Residential						10	36	32	32	33	33	33
Multi Services/Vacant Land												
Residential						43	48	48	47	46	45	44
Non Residential						1	1	1	1	1	1	1
Summary increase in EQTs per annum												
Buildings						239	291	285	284	277	274	266
Multi Services/Vacant Land						43	49	49	49	47	47	45

5.3.4 Trade Waste Volumes

Trade waste customers have been forecast to grow at the same rate as that determined for non residential wastewater/sewer customer connections. The Corporation does not have many large commercial/industrial customers that would burden the current treatment capacity and this Plan does not forecast any changes to the number of major service users. Demand has been built from the expected growth in population and historical data for mainly small businesses that would require servicing of waste. The growth forecast for non residential connections has been used where historically growth is less than residential connections.

The charges for trade waste are arrived at using the formula below:

Customer Trade Waste Charge = TWC + TWVC x (TW volume kLs – (1EQT X 300 kL)).

Where:
EQT = EQT from wastewater charges
TWC = Trade waste charge
TWVC Trade waste volume charge

Where the trade waste volume charge is calculated from a fixed trade waste charge, **plus** the trade waste volumetric charge multiplied by the estimated volume of trade waste, **less** an allowance of 300 kL for each customer's EQT.

The majority of trade waste customers are small businesses that prepare and provide meals. The few large customers in the region are involved with the processing of large scale packaged food (pastry and vegetables). The composition of the trade waste does not vary significantly between customer groups and only a minority of customers have waste strength parameters that require more intensive treatment. In these cases an added charge is calculated, based on the increased costs associated with treatment.

The growth in demand for trade waste use has been calculated from the expected increase in the number of new businesses requiring trade waste services, and the effect on trade waste, or reduced water use, from the water demand reduction forecast. The focus on measures to reduce water demand has been included in calculating the overall forecast of trade waste volume for the period of the Plan.

Specific customer focused audits and water reduction programs, previously referred to in 6.3.1 Urban Water Use, have been factored in to determining the trade waste volume forecast.

Table 5H Trade Waste Demand Forecast

Details	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
Trade Waste Customers Details								
EQTs from wastewater charges Nos	634	641	648	655	663	670	677	683
Nos Customers	375	379	383	387	391	396	400	404
Trade Waste Volumes kLs	8,837	8,912	8,988	9,064	9,141	9,219	9,288	9,358
Growth % and forecast growth		1.10%	1.10%	1.10%	1.10%	1.10%	1.00%	1.00%

5.3.5 Miscellaneous Services

The Corporation provides a range of miscellaneous services. No individual miscellaneous service generates more than 1% of EGW's total business revenue. Estimates of revenue from information statements and tapping fees have been based on historical analysis (Table 5I); that indicates a tapering of demand for these services. The sum of these two major miscellaneous services, accounts for only 1.05% of the total revenue forecast. The total remaining revenue from this group amounts to only 1.55% of total business revenue.

Demand for miscellaneous services correlates to activity in housing sales and changes to home ownership, either through purchases of new housing units or changes of ownership of older dwellings.

The predicted revenue for this Water Plan can be found below in Table 5J.

Table 5I Miscellaneous Services Revenue Calculation for WP1

Details	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007 Forecast	% revenue over total revenue	5 Year Average	2007/08 Budget
	$	$	$	$	$	$		$	$
Information Statement	230,120	174,802	174,491	94,260	48,920	77,400	0.39%	150,215	155,000
Special Meter Reading	162	16	1,994	376	48	72		524	1,000
Private Fire Service – Information Fee (each)	130	260	2,896	1,805	774	1,161	0.01%	1,250	1,500
Backflow Preventer Assessment (each)	10	424	204	225				173	
Tapping Fee – 20mm (each)	108,921	127,288	138,502	130,721	86,289	129,434	0.66%	126,973	130,000
Works supervision fees – Job Cost < $5000 (per job)	16,732	23,572	65,692	157,648	62,551	93,827	0.48%	71,494	70,000
Debt Collection recovery fees* Cost recovery	54,373	54,789	65,926	73,301	35872	53,808	0.27%	60,439	65,000
De-sludging Fees	13,229	11152	13,569	20,325	7,409	11,114	0.06%	13,878	15,000
Miscellaneous Income	109,211	164203	149,115	55,575	61,765	92,648		114,150	120,000
Plan Fees	40,231	46103	52,281	62,270	34,663	5,1995		50,576	
TOTALS	**573,119**	**602,609**	**664,670**	**596,506**	**338,291**	**511,459**	2.60%	**589,673**	**557,500**

Table 5J Miscellaneous Services Revenue Target for WP2

Details	2008/09 Budget	2009/10 Budget	2010/11 Budget	2011/12 Budget	2012/13 Budget
	$	$	$	$	$
Information Statement	155000	155000	155000	155000	155000
Special Meter Reading	1000	1000	1000	1000	1000
Private Fire Service – Information Fee (each)	1500	1500	1500	1500	1500
Tapping Fee – 20mm (each)	130000	130000	130000	130000	130000
Works supervision fees – Job Cost < $5000 (per job)	140000	140000	140000	140000	140000
Debt Collection recovery fees* Cost recovery	70000	75000	80000	85000	90000
De-sludging Fees	15000	15000	15000	15000	15000
Miscellaneous Income	170000	170000	170000	170000	170000
TOTALS	682500	687500	692500	697500	702500

5.3.6 Developer Charges - New Customer Contributions (NCCs)

Developer charges estimated in the Water Plan (see Table 5K) have been calculated using the projected increase in customer numbers for both water and wastewater, bearing in mind that development in the region is both volatile and subject to market forces. The Corporation therefore proposes to adopt the Victorian Water Industry Association (VicWater) model for determining developer charges.

Charges proposed under the VicWater model consider the water-sensitivity of particular developments and the demand for future infrastructure. New Customer Contribution Charges shall be determined as one of three possible scenarios;

a). For developments that are designed in a manner that will have minimal impact on future water resource demands, and can be catered for without additional investment within the medium-term distribution capacity, a NCC charge of $550.00 per lot, per new service of water and sewerage ($1,100 per lot), will apply.

These developments are typically:

- A lot with an area no greater than 450 square meters (sqm) per lot with a small demand on the system.
- Unit developments, even where there are not separate titles – i.e. $550.00 per unit.
- Apartment lots with separate titles.
- 2-lot sub-divisions with each lot not exceeding 450sqm.

- The charge is for each new lot created of a sub-division (i.e. a two lot subdivision only creates one new lot).

b). A charge of $1,100.00 per lot, per service of water and sewerage ($2,200.00 per lot) applies to urban developments which will require further investment in infrastructure to serve these developments.

These developments are generally:

- Typical Greenfield urban developments with lot sizes between 450sqm and 1350sqm.

c). A charge of $2,200.00 per lot, per service of water and sewerage ($4,400.00 per lot) for developments designed in such a way that properties will create demand for water resources over and above high-density developments and will require further investment in infrastructure to service these developments.

These developments are typically:

- Greenfield developments with lots sizes exceeding 1,350sqm e.g. lots with potentially large outside water-use, no recycled water and will influence near term investment in infrastructure decisions.

Note: Where shared assets must be constructed ahead of schedule to service a new property or development, and the calculated 'bring-forward' costs are greater than fees above, the calculated charge shall apply. This effectively applies to all sub-divisions except for the small 2-lot sub-division with a small demand on the system and requires no further infrastructure to be developed.

Table 5K Developer Charges forecast for WP2

Details	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
Develop Income $	1,265,000	3,248,000	2,467,000	3,772,000	2,940,000	2,104,000	2,170,000	2,184,000	2,140,000	2,146,000	2,112,000
Headworks Nos	330	961	377	532	507	520	304	312	292	295	279
	60%	55%	52%	58%	59%	59%	58%	58%	58%	57%	56%
Outfall Nos	217	789	351	381	348	360	238	244	229	232	218
	40%	45%	48%	42%	41%	41%	42%	42%	42%	43%	44%

5.3.7 Major Customers – Water and Wastewater Forecasts

The Corporation does not have any major heavy industrial users. Vegetable processing, food and meat processing, as well as dairy farming industries are the largest water consumers in the region. Appropriately, the water users are also the major producers of wastewater (see Table 5L). EGW will work with these major users on water reduction initiatives, as discussed earlier, which will also result in the decreases in Wastewater forecast in this Plan period (see Table 5M).

Table 5L Major Wastewater Customers WP1

User	*Usage kLs Year 1 = 2006*	*Usage kLs Year 2= 2005*	*Usage kLs Year 3 = 2004*	*Average growth last 3 years*
1	123,996	125,251	130,361	121,165
2	13,465	15,903	23,843	17,737
3	24,151	24,366	19,951	22,823
4	3,277	4,004	4,012	3,764
5	2,726	3,499	2,607	2,944
6	4,093	4,891	4,492	4,492
7	9,691	12,877	13,180	11,916
8	2,534	2,774	2,801	2,703
9	14,756	14,481	10,383	13,207
10	5,771	5,303	4,643	5,239
11	3,422	4,626	4,045	4,031
12	10,134	10,411	6,599	9,048
13	7,763	6,852	7,913	7,509

Table 5M Major Wastewater Customers Forecast Demand for WP2

Year	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*
User	*kLs*	*kLs*	*kLs*	*kLs*	*kLs*	*kLs*
1	*95,656*	*93,321*	*91,043*	*88,820*	*86,652*	*84,536*
2	*19,550*	*22,483*	*25,855*	*29,733*	*34,193*	*39,322*
3	*24,513*	*24,881*	*25,254*	*25,633*	*26,017*	*26,408*
4	*3,326*	*3,376*	*3,427*	*3,478*	*3,530*	*3,583*
5	*2,740*	*2,753*	*2,767*	*2,781*	*2,795*	*2,809*
6	*4,113*	*4,134*	*4,155*	*4,175*	*4,196*	*4,217*
7	*9,836*	*9,984*	*10,134*	*10,286*	*10,440*	*10,597*
8	*2,547*	*2,559*	*2,572*	*2,585*	*2,598*	*2,611*
9	*14,070*	*14,140*	*14,211*	*14,282*	*14,354*	*14,425*
10	*5,800*	*5,829*	*5,858*	*5,887*	*5,917*	*5,946*
11	*3,473*	*3,525*	*3,578*	*3,632*	*3,686*	*3,742*
12	*10,286*	*10,440*	*10,597*	*10,756*	*10,917*	*11,081*
13	*7,879*	*7,998*	*8,118*	*8,239*	*8,363*	*8,488*

5.3.8 Trade Waste Forecasts

No trade waste parameters exist for the Corporation as waste is currently regarded as similar for all customers. Where unusual waste is collected a separate charge is made based on pricing principles referred to in chapter 6.

5.3.9 Price Elasticity of Demand

The effect of price increases on demand has not been factored into the demand forecasts. Water demand equations mostly take a form where the quantity of water demanded (more likely consumed) is expressed as a function of price, income and other demand factors. Unfortunately, there is limited data available at the micro level in Australia on the study of water demand. The price elasticity of demand (PeD) includes the factors such as price, customer income, household size and weather, but further factors need to be considered for this region. The PeD needs to take into account the already comparatively low average demand for residential uses (195 kL per annum for the average household for 2006/2007). The ability to influence a change in customer demand invariably decreases as consumption gets below 142.4 kL per annum, which is the World Health Organisation standard that will provide consumers with enough water to meet adequate consumption for hydration, cooking and hygiene needs.

A further complication in determining the PeD for EGW is the household mix. The region has a large number of tourist accommodations and people moving to the region are opting for temporary household accommodation. Holiday demand is seasonal and in many cases difficult to predict. The impact of water consumption demand from a price, income, weather, seasons and household mix, combined with an already low average water consumption per capita, makes it difficult to determine any PeD with confidence. For this reason EGW has not included the impact of any PeD in this Water Plan.

Chapter 6 Prices and Tariff Structures

6.1 Prices and Tariff Structures Summary

The revenue required to meet the proposals contained in this five year plan will increase prices by 7.1% real for each year of the period. Prices have been allocated to meet long term sustainability of the business, The price increase has been applied to both water and wastewater services determined on the 2004/2005 revenue base. The percentage allocation uses the 2004/2005 base as it preceeded large capital expenditures in both water and wastewater infrastructure. A relatively neutral price allocation for water and wastewater is maintained using this 2004/2005 base.

The Corporation has proposed a shift in its water tariffs from fixed to a variable charge to strengthen the message to customers about sustainable water use.

The historical legacy of different wastewater pricing has been adjusted so that by the final year of this Plan, all wastewater customers will be charged the same cost for the same service per Equivalent Tenement.

Prices have increased mainly as a result of introducing systems to improve the security and quality of drinking water supplied to the majority of EGW customers. Significant costs in Capital and associated Operating expenditure to achieve this has contributed to price.

To meet the expenditures contained in this Water Plan and reflect changes in tariff structures for both water and wastewater, the average customer bill (20mm water connection) will increase to $995.50 by year five of the Water Plan (common water charge $425.50, common wastewater charge $570.00).

The impact to customers will vary depending on their current wastewater tariff, where 34.9% of all customers will incur a 18%, or $151.59, real price increase during the five year period of WP2, and 33.3% of all customers will be subject to an increase of 47%, or $316.21 in real dollar terms. These two customer groups represent 68.2% of all customers in the region.

The tariff increases have been arranged to spread the price percentage increase over the period of the Water Plan where possible, so large price peaks are avoided.

6.1.1 Inclining Block Tariffs

The Board resolved not to adopt inclining block tariffs (where a higher charge is imposed for metered water use at certain defined levels of consumption) at its December 2006 meeting. Over the last four years the Corporation has reduced average residential water consumption by 10.1%, to the current average of 195 kLs. This already low starting base, combined with the uncertainty of the effectiveness of implementing inclining block tariffs, the cost to administer the tariffs and their likely impact on large families, have led to the Corporation consider alternative tariff strategies to send appropriate signals to customers about water use.

6.1.2 Volumetric Wastewater Charge

The Corporation has not implemented a volumetric wastewater charge. The Board resolved not to adopt the application of a volumetric wastewater charge due to the complexity of administering this form of pricing. It should be noted that predecessor authorities to this Corporation have previously adopted a volumetric wastewater charge, well before any other water authority in Victoria. This experience has resulted in an informed approach to this decision.

6.1.3 Changes in customer behaviour

EGW proposes a two pronged focus to alter customer behaviour. This is outlined below with regard to both the Water and Wastewater tariff structures.

Water Tariff Structure

The Corporation proposes to influence customer behaviour by increasing the variable charge for the price of water. The current (06/07) percentage applied to the fixed component of the water tariff is 46%, with the remaining 54% the variable component. Over the period of this second Water Plan, it is proposed to change the pricing structure and send a stronger message to consumers about their water use by reducing the fixed charge to 40%, and increasing the variable charge to 60%.

Wastewater Tariff Structure

The Corporation aims to reduce the complexity of its tariff structure so that price signals can be readily and clearly interpreted. The proposed tariff aims to reduce the range of Equivalent Tenement (EQT) charges per district to a single common charge. The shift to a common wastewater charge will match the water charge pricing principle ‘same service, same price’ and provide pricing equity across the region.

It is also proposed to implement the EQT system of charging to Dinner Plain so that a common and consist price application is applied throughout the Corporation. Currently wastewater charges for Dinner Plain are determined by assessment/connection and water volume use.

6.1.4 Tariff Proposals

Increasing the variable Water charge from the fixed charge

The Corporation’s current water tariff is a two-part tariff based on an annual fixed charge plus, the amount of metered volume multiplied by a price per kilolitre.

EGW’s common water use charge per property can be represented by:

Annual fixed charge + (metered water volume X price) = total water tariff per property

EGW provides a bill to customers three times yearly (with the exception of Dinner Plain customers who are billed twice a year). In any one billing period the calculation for the water charge per property will be:

(1/3 Annual fixed charge) + (metered water volume for the period X price) = total water tariff per property for the period.

The fixed charge and price per kilolitre of water is calculated using the building block approach of revenue price setting to recover approved expenditure prescribed by the ESC. Prices for the fixed water component vary according to the size of the meter or service (connection pipe diameter).

The proposal to review and shift the balance between the percentage of the fixed charge and the volumetric charge, is an attempt to allow customers a greater opportunity to make decisions about their water bill by providing a greater price signal on use. This also allows the Corporation to send water conservation signals to its customers.

A conservative approach that had high fixed charges and low volumetric charges would provide greater revenue certainty, but provide few financial incentives for customers to change their water use behaviour. A higher volumetric component of the bill provides customers with the ability to manage and reduce their charges based upon their water use decisions.

The rebalance between the volumetric and fixed water charge for the Corporation aims to achieve:

- Affordability for customers
- Adequate cost recovery
- Appropriate price signals to customers
- Maintenance of pricing equity between residential and non residential customer groups.

The rebalance will have a greater impact on the price of water cost for tenants, as part of the fixed cost responsibility held by the owner is now transferred to the tenant. The rebalance will also impact large families and large water users equally.

Sensitivity in water pricing becomes more acute as price is more closely related to use. Users are now sent a much clearer price signal which supports the water conservation message and promotes future sustainability.

Table 6A Three Year Average Water Consumption per Property by Metropolitan and Regional Water Authorities[15]

kLs per property	per Residential Property				per Non Residential Property			
Authority	2002/03	2003/04	2004/05	2005/06	2002/03	2003/04	2004/05	2005/06
Barwon	219	218	206	216	1402	1264	1339	1370
Central Highlands	218	181	180	185	1041	892	886	823
Coliban	287	230	216	210	1300	1118	993	986
Gippsland	233	230	210	219	8924	8839	9126	9168
Goulburn Valley	362	316	308	315	1932	1831	1838	1782
North East	365	323	275	304	1720	1544	1402	1432
Wannon^	N/A	N/A	N/A	198	N/A	N/A	N/A	1292
Western	225	187	218	232	921	427	336	463
East Gippsland	217	204	201	196	647	675	584	570
GWMWater	255	261	243	231	639	378	443	430
Lower Murray	599	558	575	552	1349	1240	1267	1237
South Gippsland	182	164	161	152	1110	1135	1218	1122
Westernport	106	103	97	113	771	608	614	670
City West	213	189	187	183	1796	1600	1511	1465
South East	209	186	184	187	878	745	792	748
Yarra Valley	225	204	193	198	781	690	669	681
Weighted Averages								
State	231	208	201	204	1351	1208	1201	1196
Metropolitan	217	194	188	191	1059	930	921	899
Regional >35,000	262	236	223	230	2322	2095	2100	2142
Regional <35,000	312	298	293	284	912	800	822	797

Table 6B Current Water Price Fixed versus Volumetric for Residential and Non Residential Customers (based on 2006/2007 average water consumption)

User Group	Average (2006/2007) kLs Consumption per property	Total Volumetric charge (volume X current price ($.9153) per kL) $	Fixed Charge (20mm meter connection) $	Total Price $	% Volume	% Fixed
Non Residential	618	565.65	155.89	721.54	78	22
Residential	195	178.48	155.89	334.37	53.5	46.5
Total	292	267.26	155.89	423.15	63	37

The table above shows that the percentage balance between groups varies significantly due to major differences in the water consumption of customers.

[15] Ibid Victorian Water Review 2005/2006

Common Wastewater Charge

The Corporation proposes to progressively change wastewater pricing to a common tariff for all districts, based on the Equivalent Tenement Unit (EQT) of assessment.

The Corporation charges a common water tariff for all systems and towns. All services are charged the same price for water irrespective of the system or town where the customer is located. Under the common water tariff price structure any price increase is equally apportioned across all users where the concept of 'same water same price' exists.

The pricing structure for wastewater, however, currently has seven different charges across the region based on equivalent tenement units (EQTs). These range from $530.07 to $355.97 (connections with buildings, 2007/2008 prices). This represents a price gap differential of $174.10. The large price gap is a legacy of history, following the amalgamation of five Water Boards, each of which had a different pricing system. Some intervention has occurred in the past to reduce the price gap difference, however with the price structure in Water Plan 1the reverse is true as a percentage increase results in the price gap increasing.

Table 6C Range and Type of Wastewater Prices in 2007/2008

WASTEWATER CHARGES PER EQUIVALENT TENEMENT (EQT)

SEWERAGE DISTRICT	TOWN/AREAS	Building	Vacant Land	Multi Services*
Bairnsdale	Bairnsdale	$361.45	$180.71	$180.71
Bairnsdale	Nicholson	$419.05	$209.52	$209.52
Cann River	Cann River	$531.25	$265.02	$265.02
Paynesville	Paynesville	$471.62	$235.80	$235.80
	Raymond Island	$471.62	$235.80	$235.80
	Eagle Point	$471.62	$235.80	$235.80
Paynesville	Newlands Arm	$419.05	$209.52	$209.52
Lakes Entrance	Lakes Entrance	$530.07	$265.02	$265.02
	Lake Tyers	$530.07	$265.02	$265.02
Lindenow	Lindenow	$471.62	$235.80	$235.80
Mallacoota	Mallacoota	$530.07	$265.02	$265.02
Metung	Metung, Bruthen	$530.07	$265.02	$265.02
	Johnsonville	$419.05	$209.52	$209.52
	Swan Reach	$419.05	$209.52	$209.52
Orbost	Orbost, Marlo	$411.84	$216.96	$216.96
Omeo	Omeo Gravity System	$474.21	$205.52	$205.52
Omeo	Omeo STEP System	$355.97	N/A	N/A

*Multi Service applicable per allotment when multiple allotments are on one assessment

Dinner Plain charges are determined per assessment/connection and water volume usage where building charge for 2007/2008 is $474.21.

6.1.5 Price impact of increased revenue requirement

The revenue requirement of outcomes proposed in this Plan will have a significant impact on customer prices. The planned large scale Capital projects and the expenditure required to undertake them, the requirements imposed by regulations and government and business growth, have all contributed to increase operating costs.

The proposed changes to tariff structures: increasing the charge for water to 60% variable and 40% fixed, and moving to a common wastewater charge for all customers, will lead to a change in price that will affect all customer groups. The impact of these changes will depend on each customer's current level of water consumption and EQT wastewater charge. It stands to reason that those customers

who currently have a lower wastewater charge will experience the highest percentage increase in their bill when compared to those in towns/systems that have a higher price for a similar service.

The proposal to increase the variable water charge means that high consumption users will have to pay more for water. Typically this will have a greater impact on the non residential customer group who will now have to pay more because of their high average consumption. Residential customers who have higher than the average residential water namely customers with large families will also experience an increase in charges. The change to reduce the percentage of the fixed charge will also mean that some of the charge normally borne by the property owner (service charge) will now be shifted to the tenant.

Increased Operating and Capital expenditure to combat the impacts of the 2006/2007 bushfires on water quality will also impact on customer prices.

Customers that are mostly impacted from changes in pricing policy are identified as large non residential users, those with large families and tenants. Customers subject to hardship will be contacted to outline assistance available including, smart home rebates, concessions, applications for utility relief grants and advise on more efficient water use through the smart homes and garden rebate schemes. East Gippsland Water will provide comprehensive training for customer service staff to ensure that affected customers are appropriately informed about their water savings choices, any rebates and available government support. Staff will also be able to introduce customers to a range of payment options to assist meeting bill obligations.

Use of the Corporation's new billing system will provide better information that will identify those customers most affected sooner so that appropriate advice and assistance can be communicated to them more quickly.

6.1.5.1 Price impact of revenue requirements and increase in variable charge

The proposal to rebalance the fixed and variable weighting will have an impact on customer pricing, depending on meter connection size and the level of water consumption. An analysis of the impact to customers when the rebalance is applied to the average residential consumption of 195 kLs (2006/2007) shows that customers with a 20mm connection (96% of all customers) will incur a real increase of 30% or $99.06 by the end of this Water Plan period. Non residential customers will realise an increase of 38% or $270.98 (based on 20mm connection with an average water usage of 618 kLs).

Table 6D Impact on Residential Customers to achieve a 60%Volume to 40% Fixed Water Charge by the end of the Five Year Water Plan Period, based on 195kLs

			Water Plan 1			Water Plan 2								
Meter Size	% of Meters	2004/05 Tariff	2005/06 Tariff	2006/07 Tariff	2007/08 Tariff	2008/09 Tariff	2009/10 Tariff	2010/11 Tariff	2011/12 Tariff	2012/13 Tariff		5 Year % M'Ment (Real)		5 Year $ M'Ment (Real)
20mm	96.12%	126.67	136.99	144.39	152.19	155.00	159.00	163.00	167.00	172.00		13%		19.81
25mm	2.12%	197.91	214.05	225.61	237.79	242.19	248.44	254.69	260.94	268.75		13%		30.96
32mm	0.78%	324.26	350.71	369.64	389.60	396.80	407.04	417.28	427.52	440.32		13%		50.72
40mm	0.47%	506.66	547.98	577.56	608.75	620.00	636.00	652.00	668.00	688.00		13%		79.25
50mm	0.34%	791.66	856.21	902.44	951.17	968.75	993.75	1018.75	1043.75	1075.00		13%		123.83
75mm	0.02%	1781.23	1926.48	2030.48	2140.13	2179.69	2235.94	2292.19	2348.44	2418.75		13%		278.62
80mm	0.07%	2026.65	2191.91	2310.24	2434.99	2480.00	2544.00	2608.00	2672.00	2752.00		13%		317.01
100mm	0.09%	3166.64	3424.86	3609.75	3804.68	3875.00	3975.00	4075.00	4175.00	4300.00		13%		495.32
		2004/05	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**				
Volume Chr.		Rate $/kL	Rate $/kL	Rate $/kL	Rate $/kL	Rate $/kL	Rate $/kL	Rate $/kL	Rate $/kL	Rate $/kL				
Water		0.7389	0.8044	0.8478	0.8936	0.9600	1.0300	1.1200	1.2000	1.3000		45%		0.4064
Wastewater		2.1111	2.2040	2.3230	2.5000	2.6400	2.8300	3.0400	3.2700	3.5100		40%		1.0100
Fixed Charge		47%	46%	46%	46%	44%	43%	42%	41%	40%				
Volumetric Chr.		53%	54%	54%	54%	56%	57%	58%	59%	60%				

Table 6E Price Change Analysis of Average Customer Water Bill

Average Bill	kL	2007/2008 20mm service	2012/2013 20mm service	5 Year % M'Ment (Real)
Residential	**195**	326.44	425.50	30%
Non residential	**618**	704.42	975.40	38%
Tenant	**195**	174.25	253.50	45%

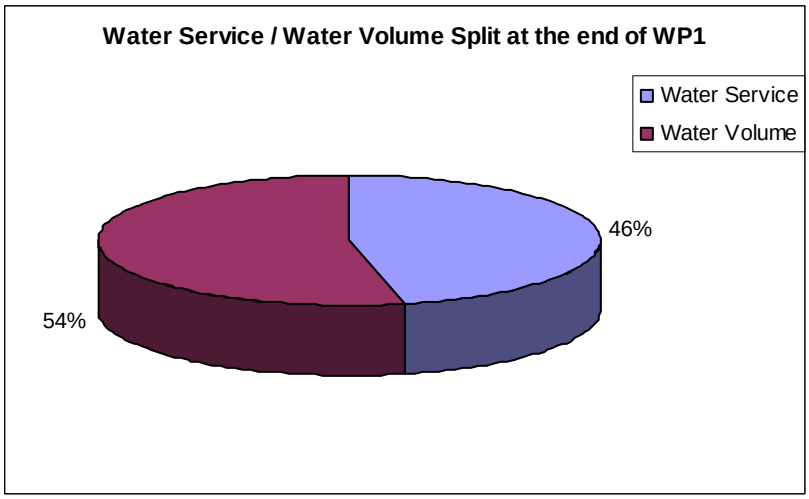
Table 6F Average* Water Bill over the Two Regulatory Periods 2004/05 – 2012/13 by Meter Size

		Water Plan 1			Water Plan 2								
	2004/05 Tariff	2005/06 Tariff	2006/07 Tariff	2007/08 Tariff	2008/09 Tariff	2009/10 Tariff	2010/11 Tariff	2011/12 Tariff	2012/13 Tariff		5 Year % M'Ment (Real)		5 Year $ M'Ment (Real)
Meter Size													
20mm	271.49	293.85	309.71	326.44	342.20	359.85	381.40	401.00	425.50		30%		99.06
25mm	342.74	370.91	390.93	412.04	429.39	449.29	473.09	494.94	522.25		27%		110.21
32mm	469.08	507.56	534.96	563.85	584.00	607.89	635.68	661.52	693.82		23%		129.97
40mm	651.48	704.83	742.88	783.00	807.20	836.85	870.40	902.00	941.50		20%		158.50
50mm	936.48	1013.07	1067.76	1125.42	1155.95	1194.60	1237.15	1277.75	1328.50		18%		203.08
75mm	1926.05	2083.34	2195.81	2314.38	2366.89	2436.79	2510.59	2582.44	2672.25		15%		357.87
80mm	2171.47	2348.76	2475.56	2609.24	2667.20	2744.85	2826.40	2906.00	3005.50		15%		396.26
100mm	3311.46	3581.71	3775.07	3978.92	4062.20	4175.85	4293.40	4409.00	4553.50		14%		574.58

Average based on 195kLs. All prices in 1/7/2007 dollars.

Chart 6A Illustrates Water Service/Volume percentage from WP1 to WP2

The charts below illustrate the proposed price shift from fixed to water volume (variable) from the first water plan.



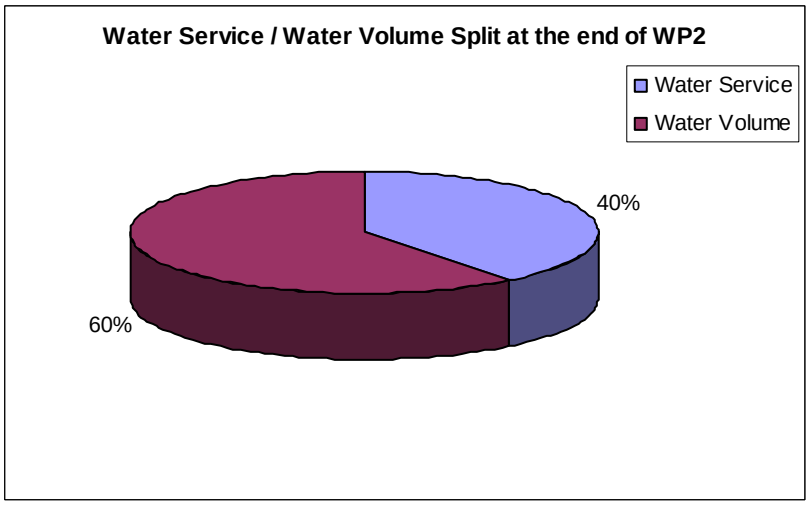
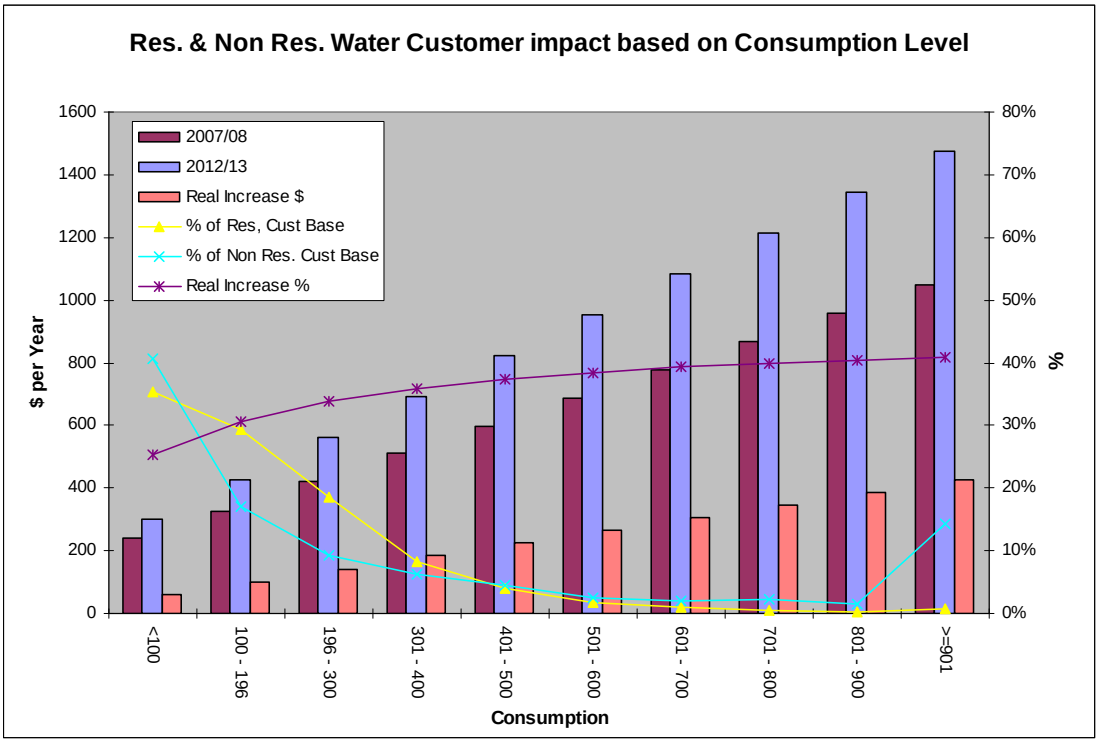


Chart 6B Shows Overall Impact for both Residential and Non Residential Customers by Water Consumption and percentage of Customers in each Group



Impact on Tenants of a 60% volume to 40% fixed water charge by end of the five year Water Plan.

Tenants will receive a 45% increase in the volumetric price per kL of water by the final year of this Water Plan. The cost per kL will increase from 89.36 to 130 cents per kL. Based on the average residential consumption of 195 kLs per annum, tenants will receive an increase of $79.25 by the end of WP2.

Impact on Non Residential customers of a 60% volume to 40% fixed water charge by the end of the five year Water Plan

The real dollar impact of the increase in the variable water charge will be greater for non residential customers than for residential customers. This is due to the higher average water consumption of non residential customers and the shift of cost from owner to tenant (actual water user). Based on the average consumption of 618 kLs, non residential customers will incur an increase of 38%, or $270.98, by the end of WP2.

6.1.5.2 Price impact to meet Revenue Requirement and Common Wastewater Pricing

In order to have a reasonable price path towards a common tariff for wastewater charges, a strategic approach has been adopted. This proposal provides for a common price to be reached in five years, thereby spreading the price impact over the period. The wastewater charge only applies to property owners, so tenants would not be directly affected by this proposal.

The move towards a common wastewater tariff will simplify and clarify the charging structure across the region, reducing administration and billing complexity. A common wastewater tariff will make revenue and service delivery comparisons more meaningful and will remove the requirement for burdensome matrix calculations in billing customers across different towns and systems. The common charge will also assist in applying EQTs more equitably to customers. Common pricing for wastewater will match the uniform pricing currently in place for water services, thereby giving full service price equity throughout the region.

The table below (6G) shows the real impact (prices include increases proposed in WP2) over five years if a common wastewater tariff is pursued.

Table 6G Showing Price Movement for each of the 5 Years of the Water Plan 2 until a common Wastewater Charge is achieved for each Town/Area change shown as a % and Real $

				Water Plan 1			Water Plan 2							
SEWERAGE DISTRICT	TOWN/AREAS	Customer %	2004/05 Tariff	2005/06 Tariff	2006/07 Tariff	2007/08 Tariff	2008/09 Tariff	2009/10 Tariff	2010/11 Tariff	2011/12 Tariff	2012/13 Tariff		5 Year % M'Ment (Real)		5 Year $ M'Ment (Real)
Bairnsdale	Bairnsdale	33.3%	293.65	317.62	334.78	352.86	390.00	435.00	480.00	520.00	570.00		62%		217.14
Bairnsdale	Nicholson	0.5%	353.61	368.24	388.13	409.09	440.00	475.00	510.00	560.00	570.00		39%		160.91
Cann River	Cann River	0.9%	0.00	465.80	490.96	517.47	520.00	540.00	550.00	560.00	570.00		10%		52.53
Paynesville	Paynesville	10.7%	383.16	414.43	436.82	460.41	475.00	500.00	530.00	560.00	570.00		24%		109.59
	Raymond Island	2.4%	383.16	414.43	436.82	460.41	475.00	500.00	530.00	560.00	570.00		24%		109.59
	Eagle Point	1.5%	383.16	414.43	436.82	460.41	475.00	500.00	530.00	560.00	570.00		24%		109.59
Paynesville	Newlands Arm	2.5%	352.55	368.24	388.13	409.09	440.00	475.00	510.00	560.00	570.00		39%		160.91
Lakes Entrance	Lakes Entrance, Lake Tyers	23.4%	430.66	465.80	490.96	517.47	520.00	540.00	550.00	560.00	570.00		10%		52.53
Lindenow	Lindenow	0.8%	383.16	414.43	436.82	460.41	475.00	500.00	530.00	560.00	570.00		24%		109.59
Mallacoota	Mallacoota	5.6%	430.66	465.80	490.96	517.47	520.00	540.00	550.00	560.00	570.00		10%		52.53
Metung	Metung, Bruthen	5.0%	430.66	465.80	490.96	517.47	520.00	540.00	550.00	560.00	570.00		10%		52.53
	Johnsonville	0.7%	353.61	368.24	388.13	409.09	440.00	475.00	510.00	560.00	570.00		39%		160.91
	Swan Reach	0.5%	353.61	368.24	388.13	409.09	440.00	475.00	510.00	560.00	570.00		39%		160.91
Orbost	Orbost, Marlo	8.9%	334.61	361.90	381.45	402.05	440.00	475.00	510.00	560.00	570.00		42%		167.95
Omeo	Omeo Gravity System	1.1%	385.27	416.71	439.22	462.94	480.00	500.00	530.00	560.00	570.00		23%		107.06
Omeo	Omeo STEP System	0.2%	289.22	312.81	329.71	347.51	390.00	435.00	480.00	520.00	570.00		64%		222.49
Dinner Plain	Dinner Plain	2.0%	374.13	416.71	439.22	462.94	480.00	500.00	530.00	560.00	570.00		23%		107.06

Amounts shown in 1/7/2007 Dollars

The aim of achieving common pricing will have the greatest impact on customers currently charged the lowest price for wastewater services. The impact on customers in the Bairnsdale township (33.3% of customers) will be a real price increase of 62% or $217.14 for wastewater services by the end of WP2. The least impact will be on customers in the towns of Lakes Entrance, Mallacoota, Metung and Bruthen (34.8% of customers) where a price increase of 10%, or $52.53, will result.

Table 6H Showing impact of movement for each of the 5 years until Common Price for each Price Groups x Year in % and Real $

Tariff Group	Towns	Customer %	2007/08 Tariff	2008/09 Tariff	% Change	2009/10 Tariff	% Change	2010/11 Tariff	% Change	2011/12 Tariff	% Change	2012/13 Tariff	% Change
Group A	**Bairnsdale**	33.3%	352.86	390.00	10.5%	435.00	10.3%	480.00	9.4%	520.00	7.7%	570.00	8.8%
Group B	**Nicholson, J'ville, S'Reach, N'lands Arm**	4.2%	409.09	440.00	7.6%	475.00	7.4%	510.00	6.9%	560.00	8.9%	570.00	1.8%
Group C	**Cann River, Lakes, M'Coota, Metung**	34.9%	517.47	520.00	0.5%	540.00	3.7%	550.00	1.8%	560.00	1.8%	570.00	1.8%
Group D	**P'Ville, Raymond Is, E'Point, Lindenow**	15.5%	460.41	475.00	3.2%	500.00	5.0%	530.00	5.7%	560.00	5.4%	570.00	1.8%
Group E	**Orbost, Marlo**	8.9%	402.05	440.00	9.4%	475.00	7.4%	510.00	6.9%	560.00	8.9%	570.00	1.8%
Group F	**Omeo Gravity System, Dinner Plain**	3.1%	462.94	480.00	3.7%	500.00	4.0%	530.00	5.7%	560.00	5.4%	570.00	1.8%
Group G	**Omeo STEP System**	0.2%	347.51	390.00	12.2%	435.00	10.3%	480.00	9.4%	520.00	7.7%	570.00	8.8%

The table above shows the path to common pricing for wastewater, both in terms of percentage change and real dollars, over the period of the Water Plan for each customer group. The price path is a complex matrix - mainly based on holding prices for customers in group C and controlling increases for customers in group A, so that the percentage changes are spread evenly for the remaining groups. Groups A and C represent 68.2% of the wastewater customers.

Chart 6C Percentage increases in Wastewater Tariff by Customer Group for each Year of the Water Plan

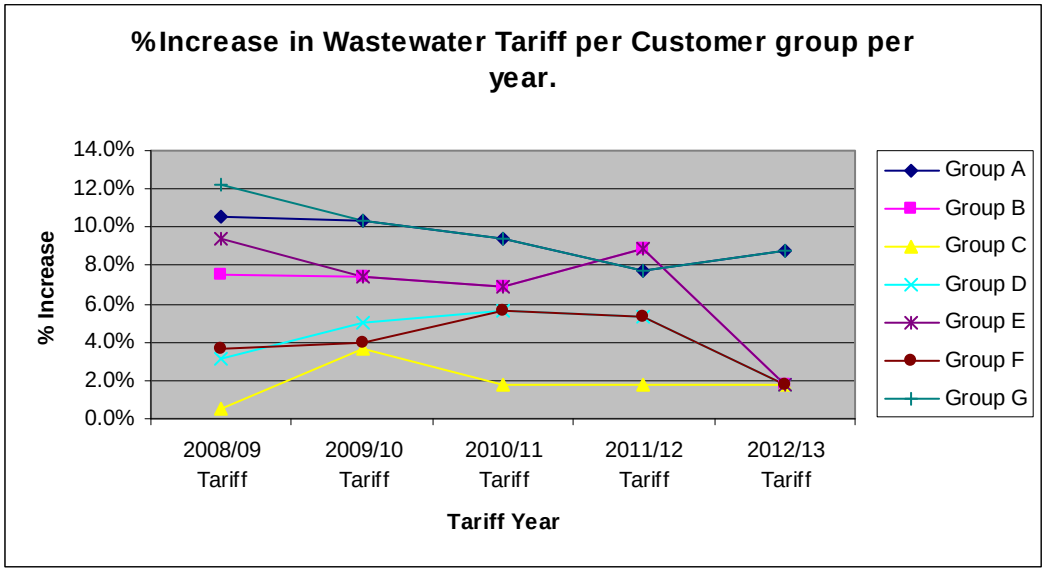


Chart 6D Shows Price Movement in Wastewater (EQT) over the WP2 period for each Town.

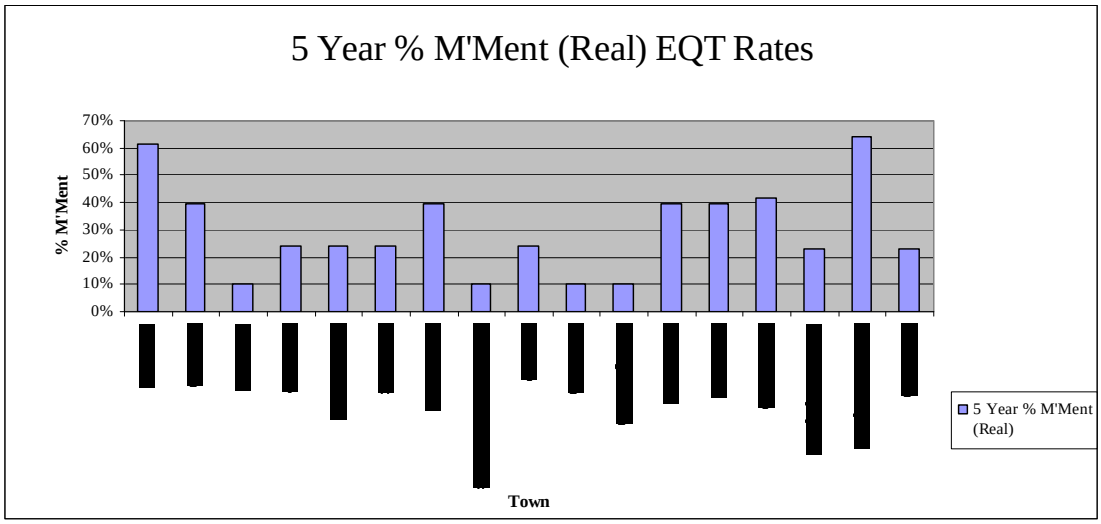
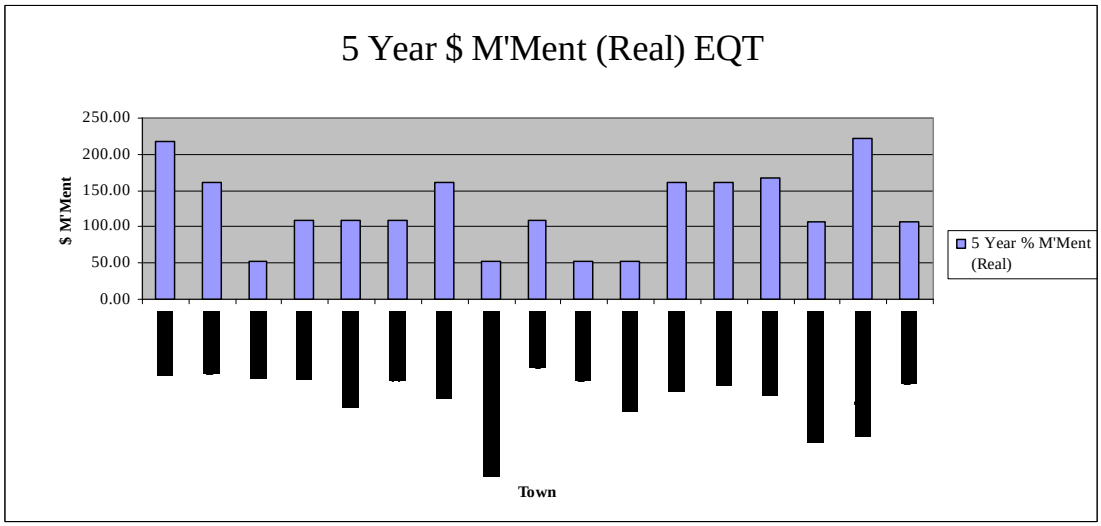


Chart 7E graphically depicts the real change in $ terms for each town to achieve wastewater pricing based on EQT price.

Chart 6E % Price Movement for each Town over the WP2 period.



6.1.5.3 Overall customer price impact of revenue requirement and increases in variable water charge and common wastewater charge.

The overall price impact on customer groups will vary depending on their current wastewater tariff and level of water consumption. To meet the expenditures contained in this Water Plan and changes in tariff structures for both water and wastewater, the average residential customer bill (20mm water connection) will increase to $995.50 by year five of the Water Plan (common water charge $425.50, common wastewater charge $570.00). Comparatively, wastewater connections to Lakes Entrance, Metung, Mallacoota, Bruthen and Cann River (together representing 34.9% of all customers) will incur a 18%, or $151.59, real price increase during the five year period of WP2. Customers in Bairnsdale (33.3% of all customers) will be subject to an increase of 47%, or $316.21 in real dollar terms, over this period. These two customer groups represent 68.2% of all customers in the region. Impacts on customers in other towns fall within the range of these two groups. A small group of Omeo customers on the Omeo STEP system will incur a 48% price increase, or $321.55, in real dollar terms. This small group consists of only 0.2% of customers, (an estimated $9,000 per property upgrade of services for the Omeo STEP customers was completed during the first regulatory period).

The tariff increases have been arranged to spread the price percentage increase over the period of the Water Plan where possible, so large price spikes are kept to a minimum.

Table 6I Showing Overall Movement in Average Customer Bill over the period of Water Plan 2

			Water Plan 1			Water Plan 2								
DISTRICT	TOWN/AREAS	2004/05 Ave. Bill	2005/06 Ave. Bill	2006/07 Ave. Bill	2007/08 Ave. Bill	2008/09 Ave. Bill	2009/10 Ave. Bill	2010/11 Ave. Bill	2011/12 Ave. Bill	2012/13 Ave. Bill		5 Year % M'Ment (Real)		5 Year $ M'Ment (Real)
Bairnsdale	Bairnsdale	565.14	612.27	645.34	679.29	732.20	794.85	861.40	921.00	995.50		47%		316.21
Bairnsdale	Nicholson	625.09	662.89	698.69	735.52	782.20	834.85	891.40	961.00	995.50		35%		259.98
Cann River**	Cann River	271.49	760.45	801.52	843.91	862.20	899.85	931.40	961.00	995.50		18%		151.59
Paynesville	Paynesville	654.65	709.08	747.38	786.84	817.20	859.85	911.40	961.00	995.50		27%		208.66
	Raymond Island	654.65	709.08	747.38	786.84	817.20	859.85	911.40	961.00	995.50		27%		208.66
	Eagle Point	654.65	709.08	747.38	786.84	817.20	859.85	911.40	961.00	995.50		27%		208.66
Paynesville	Newlands Arm	624.04	662.89	698.69	735.52	782.20	834.85	891.40	961.00	995.50		35%		259.98
Lakes Entrance	Lakes Entrance, Lake Tyers	702.15	760.45	801.52	843.91	862.20	899.85	931.40	961.00	995.50		18%		151.59
Lindenow	Lindenow	654.65	709.08	747.38	786.84	817.20	859.85	911.40	961.00	995.50		27%		208.66
Mallacoota	Mallacoota	702.15	760.45	801.52	843.91	862.20	899.85	931.40	961.00	995.50		18%		151.59
Metung	Metung, Bruthen	702.15	760.45	801.52	843.91	862.20	899.85	931.40	961.00	995.50		18%		151.59
	Johnsonville	625.09	662.89	698.69	735.52	782.20	834.85	891.40	961.00	995.50		35%		259.98
	Swan Reach	625.09	662.89	698.69	735.52	782.20	834.85	891.40	961.00	995.50		35%		259.98
Orbost	Orbost, Marlo	606.09	656.55	692.01	728.48	782.20	834.85	891.40	961.00	995.50		37%		267.02
Omeo	Omeo Gravity System	656.76	711.36	749.78	789.37	822.20	859.85	911.40	961.00	995.50		26%		206.13
Omeo	Omeo STEP System	560.71	607.46	640.27	673.95	732.20	794.85	861.40	921.00	995.50		48%		321.55
Dinner Plain***	Dinner Plain	1059.38	1143.34	1204.89	1266.61	1337.14	1415.47	1510.92	1607.88	1693.48		34%		426.87
Buchan*	Buchan	271.49	294.65	310.56	326.44	342.20	359.85	381.40	401.00	425.50		30%		99.06
Bemm River*	Bemm River	271.49	294.65	310.56	326.44	342.20	359.85	381.40	401.00	425.50		30%		99.06
Nowa Nowa*	Nowa Nowa	271.49	294.65	310.56	326.44	342.20	359.85	381.40	401.00	425.50		30%		99.06
Swifts Creek*	Swifts Creek	271.49	294.65	310.56	326.44	342.20	359.85	381.40	401.00	425.50		30%		99.06

***Charges for customers at Dinner Plain are determined on assessment/connection and not EQT. The differing average charge therefore reports a high average as costs are mainly based on usage. The application of EQT as a means of charging will be considered for Dinner Plain so that common wastewater pricing may be applied across the region.

6.2 Miscellaneous Charges

Miscellaneous charges account for approximately 2.65% of total revenue. Income from information statements and debt collection fees accounts for half this revenue. No increases to the miscellaneous charges are proposed for the term of WP2. The Corporation proposes a pricing policy based on the actual cost of providing a service, plus 43% oncosts. Miscellaneous prices are provided in Table 6J below.

Table 6J Miscellaneous Price List

Tariff and Price Component	*(1 July 2007 Price*
Trade Waste	$
Service Charge (per annum)	162.83
Volumetric Fee > 300kl usage (per kL)	0.6269
BOD (where Concentration exceeds 300mg/L) - per kg.	0.1500
Suspended Solids (where Concentration exceeds 300mg/L) - per kg.	0.0800
Phosphorus (where Concentration exceeds 12mg/L) - per kg. Bairnsdale System.	10.00
Miscellaneous Fees and Charges	
Property Information Statement (each)	44.04
Special Meter Reading (each)	49.55
Property Information Statement with Meter Reading (each)	60.56
Testing Water Meters = < 32 mm (each)	69.37
Water Pressure & Flow Test (each)	158.57
Customer Connection - Water (Tapping Fee) – 20 mm (each)	118.92
Customer Connection - Water (Meter Only) – 20 mm (each)	168.48
Standpipe Tokens (each) per kl water	3.62
Build Over Works - Application Fee	100.00
Provision of customer account and usage history held beyond 3 years	Nil
Up to one additional year (each)	38.54
Each year in excess of one additional year (per additional year)	22.02
Dishonoured payment charge*	Bank charge

6.3 Form of Price Control

The Corporation can elect to choose any number of revenue regulation methods for the next Water Plan (WP2). The different forms of price controls that may be adopted are:

- Individual price caps;
- Tariff basket;
- Revenue yield;
- Revenue cap; or
- A combination of the above.

The Corporation adopted an Individual Price Cap price structure for the first Water Plan (WP1). Under this approach all prices were capped to give customers and the Corporation certainty of pricing, for better control and ease of administration. This

form of pricing contrasts with the' tariff basket' approach where the approval is given for a bundle of prices that the Corporation can adjust within the five year term of the WP2.

The Corporation agrees with the Commission that either the 'tariff basket' approach or 'individual price cap' best meet the requirements of the Water Industry Regulatory Order. The methodology of either of these price controls provides mechanisms that give certainty about future prices to customers, as they are administratively simple and relatively easy to understand. Individual price caps are the ultimate choice for this Water Plan because of the price certainty they communicate to customers. The easy to follow price adjustments give customers the information they require to understand the future impact of prices contained in the Water Plan. This level of price surety is particularly important for this Plan, as complexity in pricing exists with the movement toward a common wastewater tariff and shifting of the variable weighting in the water tariffs.

A potential volatility in revenue is outweighed by the benefits of price certainty to customers. Under this scenario the Corporation accepts risk associated with changes to customer consumption, but this method is also easy to administer over the course of the Water Plan. The Board has resolved to adopt individual price caps as the form of price control for the second regulatory Water Plan at its December 2006 meeting.

Table 6K Price Structure Benefits and Risk

Price Structure	Details	Benefits	Risks
Individual Price Caps	ESC controls/ approves prices.	Customers have greater certainty of price with regard to future prices. Relatively easy to administer based on historical data.	Revenue risk – changes from assumptions that determined price may lead to not meeting revenue requirements. Cannot rebalance prices to cater for historical changes in planning period.
Tariff basket	ESC controls/ approves based on the weighted average of prices in the basket (water and wastewater fixed/volume).	Not exposed to the risks associated with volume variations.	Difficult to administer when introducing new prices or substantially changing existing tariff structures during the regulatory period.

6.4 Adjusting Prices

The Corporation accepts that in certain circumstances there may be a need to adjust prices during the term of the Water Plan. Where uncertainty exists, a mechanism to ensure that service continuity is maintained for the Corporation is paramount. The move to a five year regulatory period will test assumptions, estimates and budget forecasts and, as indicated, the ESC should provide a level of medium term financial security for non-controllable costs.

6.4.1 Changes in Legislative Obligations

Changes in regulatory and government obligations are discussed in Chapter 4 of this plan.

6.4.2 Unforeseen Events

The Corporation accepts the materiality threshold in respect of the impact of unforeseen circumstances on the ability of the business to operate efficiently.

6.5 Overall Impact on Prices

The result of price changes to meet all the revenue requirements contained in this Water Plan, the proposal to move to a common wastewater charge and the rebalance in the pricing structure for water to 60% variable charge 40% fixed, is shown in Table 7I.

The overall impact on price for a residential customer living in Bairnsdale (33.3% of all residential customers), based on average consumption of 195 kLs and one EQT, will be an increase of 46%, or $315.31. A customer living in Lakes Entrance, Cann River, Mallacoota, Metung or Bruthen (together accounting for 34.9% of all customers) will be subject to an increase of 18%, or $150.70.

Table 6L Non Residential Price Impact - Bairnsdale Customers

Non Residential Impact - Bairnsdale Customers

Details		2007/08 Tariff	2012/13 Tariff	5 Year $ M'Ment (Real)	5 Year % M'Ment (Real)
		$	$	$	$
Wastewater		352.86	570.00	217.14	62%
Water - 618kL		704.42	975.40	270.98	38%
Total		1057.28	1545.40	488.12	46%

Table 6M Non Residential Price Impact - Lakes Entrance, Lake Tyers, Mallacoota, Metung, Bruthen, Cann River Customers

Non Residential Impact - Lakes Customers

		2007/08 Tariff	2012/13 Tariff	5 Year $ M'Ment (Real)	5 Year % M'Ment (Real)
Details		$	$	$	$
Wastewater		517.47	570.00	52.53	10%
Water - 618kL		704.42	975.40	270.98	38%
Total		1221.89	1545.40	323.51	26%

A non residential customer receiving services from Bairnsdale based on the average non residential water consumption of 618kLs will be subject to an increase of $488.12, or 46%, during the period of the Water Plan. The impact will be less for a customer living in Lakes Entrance, Cann River, Mallacoota, Metung or Bruthen (34.9% of all customers) where the increase for the non residential customer will be $323.51, or 26%.

6.5.1 Analysis of Long Run Margin Cost (LRMC)

East Gippsland Water's pricing strategy has considered long term demand outcomes. Price for services has been developed to provide customers with incentives to conserve water use. The price mix shift from fixed to variable strengthens the message to customers about their water use.

The variable water price is also better aligned to the long run margin cost and even though the Corporation has not carried out intensive study on long run marginal cost, pricing using models developed by the industry show LRMC in excess of the prices applied to variable water in this plan.

Major components of the Mitchell River Water Supply System capital project were evaluated based on a long run marginal cost impact analysis and is contained in the Water Supply Demand Strategy prepared in conjunction with consultants Sinclair Knight Merz. The results once again support the variable price strategy applied.

6.5.2 Hardship Policy – Assistance to Customers

The Corporation recognises that the price increases proposed in this plan may lead to financial difficulty for some customers. Customers mostly impacted from changes in pricing policy are identified as large non residential users, those with large families and tenants. To assist vulnerable customers that may experience hardship, a program will be initiated to contact customers so that options for assistance including, smart home rebates, concessions, applications for utility relief grants and advice on efficient water use through the smart homes and garden rebate schemes may be given. East Gippsland Water will also provide comprehensive training for customer service staff to ensure that affected customers are appropriately informed about their water savings choices, any rebates and available government support. Staff will also be able to introduce customers to a range of payment options to assist meeting bill obligations.

Use of the Corporation's new billing system will provide better information that will identify those customers most affected sooner so that appropriate advice and assistance can be communicated to them more quickly.

Chapter 7 Non-prescribed Services

7.1 Classification of Services as Non-prescribed

East Gippsland Water provides the following non-prescribed services:

1. Rental of farm houses for accommodation.
2. Rental and leasing of land for telecommunications.
3. Income from conducting farming activities.

7.2 Expenditure and Revenue Associated with Non-prescribed Services

Table 7A Shows Forecast Expenditure and Revenue for Non-prescribed Services for WP2

Expenditure

Details	ANNUAL 2008/2009 $	ANNUAL 2009/2010 $	ANNUAL 2010/2011 $	ANNUAL 2011/2012 $	ANNUAL 2012/2013 $
Site Tower Rental	3,000	3,000	4,000	4,000	5,000
Farm operation Income	40,000	43,000	46,000	49,000	52,000
3rd Party Reuse Agreements	5,000	6,000	6,000	7,000	7,000
Total	**48,000**	**52,000**	**56,000**	**60,000**	**64,000**

Revenue

Details	ANNUAL 2008/2009 $	ANNUAL 2009/2010 $	ANNUAL 2010/2011 $	ANNUAL 2011/2012 $	ANNUAL 2012/2013 $
Site Tower Rental	80,000	84,000	88,000	92,000	96,000
Farm operation Income	135,000	140,000	145,000	150,000	155,000
3rd Party Reuse Agreements	12,000	13,000	14,000	15,000	16,000
Total	**227,000**	**237,000**	**247,000**	**257,000**	**267,000**

Key Acronyms Used

Abbreviation	***Definition***
AICD	Australian Institute of Company Directors
AM	Asset Management
DHS	Department of Human Services
DSE	Department of Sustainability & Environment
DTF	Department of Treasury & Finance
EGW	East Gippsland Water
EMS	Environment Management System
EPA	Environment Protection Corporation
ESC	Essential Services Commission
EQT	Equivalent Tenement
GHD	Gutteridge Haskins and Davey P/L
GSLs	Guaranteed Service Levels
ITBs	Inclining Block Tariffs
K	Thousand
kL	Kilolitre (one thousand litres)
km	Kilometre
KPI	Key Performance Indicator
LRMC	Long Run Marginal Cost
M	Million
ML	Megalitre (one millions litres)
MRWSS	Mitchell River Water Supply System
OH&S	Occupational Health & Safety
PPM	Prescribed Price Movement (determined by the ESC)
RAB	Regulatory Asset Base
SCADA	Supervisory Control and Data Acquisition
SEPP	State Environmental Protection Policy
SoO	Statement of Obligations
WIRO	Water Industry Regulatory Order
WP	Water Plan
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

Appendices

Appendix A
Outcomes of Key performance Indicators First Regulatory Period (2006/2007 YTD period ending 31 Dec 2006)

Appendix B
Comparative Analysis of Forecast vs Actual Demand in the First Regulatory Period

Appendix C
Community Consultation Strategies – A list of Consultation Programs used by East Gippsland Water

Appendix D
East Gippsland Water Proposed Capital Projects by Location & Service

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Appendices

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Appendix A - Outcomes of Key performance Indicators First Regulatory Period

Key Performance Indicator	Measure	2005/2006 Annual Targets	2005/2006 Actual Result	2005/2006 Variance	2006/2007 Annual Targets	2006/2007 YTD Target	2006/2007 Actual Result	2006/2007 Variance
				Favourable/Unfavourable (-)				Favourable/Unfavourable (-)
Water								
Unplanned water supply interruptions	per 100km	13	9.18	3.82	12.25	6.13	5.07	1.05
Average time taken to attend bursts and leaks (minutes)								
Priority 1 incidents (minutes)	per cent	80.00	30.00	50.00	80	80	0	
Priority 2 incidents	per cent	85.00	31.75	53.25	85	85	25.17	59.83
Priority 3 incidents	per cent	90.00	71.09	18.91	90	90	37.05	52.95
Unplanned water supply interruptions restored within 3 hours			90.79	no target			95.2	no target
Unplanned water supply interruptions restored within 5 hours	per cent	99.00	97.37	1.63	99	99	100	1.00
Unplanned water supply interruptions restored within 12 hours				no target			100	no target
Planned water supply interruptions restored within 5 hours	per cent	95.00	95.83	-0.83	95	95	100	5.00
Planned water supply interruptions not restored within 5 hours							nil	
Unplanned water supply interruptions not restored within 5 hours							nil	
Average unplanned customer minutes off water supply	minutes	8.70	17.00	-8.30	8.6	4.3	3.67	0.63
Average planned customer minutes off water supply	number	8.00	15.11	-7.11	7.5	3.75	5.82	-2.07
Average frequency of unplanned water supply interruptions	number	0.10	0.11	-0.01	0.09	0.045	0.044	0.00
Average frequency of planned water supply interruptions	minutes	0.06	0.14	-0.08	0.06	0.03	0.037	-0.01
Average duration of unplanned water supply interruptions	minutes	94.00	152.39	-58.39	92	92	83.5	8.51
Average duration of planned water supply interruptions	minutes	180.00	111.44	68.56	160	160	156.49	3.51
Number of customers experiencing 1 unplanned water supply interruptions in the year	number	0.00	1734.00	no target			1734	no target
Number of customers experiencing 2 unplanned water supply interruptions in the year	number	NA	460.00	no target			460	no target
Number of customers experiencing 3 unplanned water supply interruptions in the year	number	NA	8.00	no target			8	no target
Number of customers experiencing 4 unplanned water supply interruptions in the year	number		0.00	no target			0	no target
Number of customers experiencing 5 unplanned water supply interruptions in the year	number		0.00	no target			0	no target
Number of customers experiencing >5 unplanned water supply interruptions in the year	number	0.00	0.00	no target	0		0	no target
Number of customer interruptions in peak hours	number							
Unaccounted for water	per cent	18.00	14.27	3.73	17	17	0	TBA
Sewerage								
Sewerage blockages	per 100km	16.98	16.34	0.64	16.89	8.45	6.43	2.01
Average time to attend sewer spills and blockages	minutes	54.00	27.48	26.52	53	53	17.09	35.91
Average time to rectify a sewer blockage	minutes	68.00	75.40	-7.40	67	67	66	0.95
Spills contained within 5 hours	per cent	100.00	100.00	0.00	100	100	100	0.00
Customers receiving 1 sewer blockages in the year	number	0.00	106.00		0	0	106	
Customers receiving 2 sewer blockages in the year	number	0.00	4.00		0	0	4	
Customers receiving more than 3 sewer blockages in the year	number	0.00	0.00		0	0	0	
Customer service								
Complaints to EWOV@	per 1000 cu	0.05	0.61	-0.56	0.05	0.05	0.20	-0.15
Telephone calls answered within 30 seconds	per cent	95%	96%	0.01	95%	95%	94%	0.01
CORPORATE PLAN TARGETS								
Water quality complaints (No.)		130.00	221.00	-91.00	110	55	9	46.06
Colour			48				3	
Taste & odour			38.00				3	
Blue water			0				0	
Other			135.00				3	
Water supply reliability complaints (No.)		350	20	330	311	155	1	154.36
Sewerage service quality & reliability complaints (No.)		125.00	104.00	21.00	104	52	8	44.11
Affordability complaints (No.)		81	3	78	65	32	3	29.45
Billing complaints (No.)			9.00				10	
Pressure complaints (No.)			39				9	
Sewage odour complaints (No.)			9.00				0	
Other complaints (No.)		110	73	37	83	41	37	4.30
Total of all compliants		666.00	257.00	409.00	673	336	68	268.29
Property development agreements (No.)#								
Prepared			18.00				27	no target
Non-prepared			140				9	no target
Prepared works turned around 45 bus. Days (No.)			17.00				22	no target
Non-prepared works turned around 12 bus. Days (No.)			129				6	no target
Information statements received (No.)		2241.00	1852.00	389.00	0	0	902	
Information statements processed within 5 days (No.)		2128.95	1797	331.95	0	0	897	
COMPLAINTS PER THOUSAND CUSTOMERS								
Water quality		6.10	11.24	-5.14	5.6	2.8	0.458	2.34
Water supply reliability		16.5	1.016984	15.48	15.8	7.9	0.05	7.85
Sewerage		5.90	6.58	-0.68	5.3	2.65	0.506	2.14
Affordability		3.8	0.152548	3.65	3.3	1.65	0.15	1.50
Other		5.20	4.63	0.57	4.2	2.1	1.42	0.68

Appendix B - Comparative Analysis of Forecast vs Actual Demand in the First Regulatory Period

Details	Forecast Assmts	Actual Contns	Variance	Forecast Assmts	Actual Contns	Variance	Forecast Assmts	Estimated	Variance	Forecast Assmts	Estimated	Variance
Year		2004/2005			2005/2006			2006/2007			2007/2008	
Water Connections – Residential#	18461	16552	-1909	18738	16800	-1938	19019	17052	-1967	19209	17308	-1901
Water Connections - Non Residential#	2801	2830	29	2843	2866	23	2886	2909	23	2914	2953	39
Water Available for Connection		1858	1858		2039	2039		2050	2050		2050	2050
Total	21262	21240	-22	21581	21705	124	21905	22011	106	22123	22310	187
Sewerage Connections – Residential#	15568	13566	-2002	15802	13920	-1882	16039	14129	-1910	16199	14343	-1856
Sewerage Connections - Non Residential#	1804	1870	66	1831	1880	49	1858	1908	50	1877	1934	57
Sewerage - Available for Connection		2190	2190		2363	2363		2400	2400		2398	2398
Total	17372	17626	254	17633	18163	530	17897	18437	540	18076	18675	599
Residential Water Consumption total	3116	3336	220	3163	3296	133	3211	3342	131	3243	3389	146
Residential Water Consumption average	169	202	33	169	196	27	169	196	27	169	196	27
Non Residential Water Consumption	1594	1649	55	1618	1633	15	1643	1656	13	1659	1680	21
Total Sewerage Volumes *	43	3146	3103	43	2954	2911	44	3074	3030	46	3117	3071
Developer Lots - Water	478	377	-101	319	532	213	324	507	183	219	519.5	301
Developer Lots - Sewerage	3961	351	-3610	261	381	120	264	348	84	179	360	181

*** Estimates based average % (61.5%) against last 2 years water consumption**
 # Forecast amounts include water available for connection totals (reported as assessments in the first Water Plan).
Assmts = Assessments
Contns = Connections

Appendix C - Community Consultation Strategies

Annual Customer Survey

EGW engages a professional consultant to conduct an annual customer survey. The results are reported to the Board. Issues of significance are followed up and the results of the survey assist in improving services and infrastructure. As an example, the decision to provide water treatment plants to Bemm River, Buchan, Cann River, Swifts Creek and the Nowa Nowa pipeline was reinforced by customer comment contained in the Annual Customer Survey.

The survey provides demographic information about our customers as well as socio-economic indicators. Whilst most of the survey questions are the same, or similar, each year to enable benchmarking and performance measurement, EGW does add additional questions to either test opinion or seek further information about customers - e.g. attitudes to water conservation/permanent water savings rules and internet usage.

Incident Register - Follow up report.

All incidents relating to delivery of service are registered in the EGW incident register. Each month, a random sample of customers (10%-15%) reporting incidents are contacted and asked to comment on the service they received. The results are reported to the EGW Board monthly and feedback provided to staff.

Regional Meetings

Scheduled monthly meetings are held in rotation in the Lakes Entrance, Omeo, Orbost and Mallacoota districts, providing customers with opportunity to meet and discuss service issues with senior managers in the residents' local area. The meetings are attended by EGW executive management and advertised in the local press. Individual appointments can be made with senior members of staff on request.

Meetings with Interest Groups

The Corporation actively encourages meetings of this type and willingly provides speakers to address special interest groups on common interest topics. Groups participating include local irrigators, Probus, Rotary, Chambers of Commerce, plumbers and Landcare groups.

Energy & Water Ombudsman of Victoria (EWOV)

On occasions customers may register issues or complaints with EWOV which are dealt with in accordance with EWOV procedures. The matters are very specific and individual customer based, however on occasions resolution may lead to a change in procedure or policy. EWOV reports are circulated to senior staff.

Issue or Project Consultation Groups

EGW provides thorough consultation on specific projects with a high level of community interest – e.g. Cann River Sewerage Scheme, Tambo Bluff Water and Sewerage Scheme and Bruthen Sewerage Scheme.

In the case of Cann River, nominations for representatives to serve on a consultative committee were called for and an independent chairperson was appointed to conduct

the meetings. EGW representatives provided administrative support and technical advice to the committee. The committee gave residents an opportunity to express their concerns on an individual basis. An issues register was maintained to help identify any recurring concerns for further discussion and agreement.

EGW Website
The EGW website provides ready public access to copies of all published material, including the Corporation's invitations to comment, media releases etc. There is a "contact us" section on the site for customers and interested parties to provide feedback on our services.

Our 2006 Customer Survey indicated that 53% of customers had access to the web. However, only 8% of all customers visited the East Gippsland website in the last 12 months.

Publications

Customer Accounts
The customer account is the basic means we have of communicating with all our customers. EGW accounts show a break-up of the account, 12 months average volumetric charge, as well as details on payment options and other services that are available. EGW is constantly seeking to improve the 'readability' of its account. Information sheets are also periodically provided with accounts.

On Tap
This is an A4 news sheet inserted with rate notices. It provides a mix of news items and information and is an addition to all our customer accounts. It contains both general customer information as well as specific information that is relevant to the customer's water/wastewater supply district.

Pipeline
This is a general news and information document. It is produced four times a year, with a print run of 1,000 copies per issue. It is sent to a variety of interest groups, special customers and institutions. Feedback on articles is welcomed through an invitation to contact EGW direct or via the web. Copies can also be obtained from offices, depots and the EGW website.

Newsletters/ minutes of consultative meetings
Where a special project Consultative group is formed, newsletters and minutes are circulated through the committee to the public generally in the form of direct mail outs or information sheets.

Annual Report
This is a statutory report and is presented to the Parliament of Victoria. Four hundred copies are circulated to specific stakeholders and customers. Copies are also available on request by mail, on CD, or can be downloaded from the EGW website.

Water Quality Report[16]

An Annual Water Quality report is prepared for the regulator, Department of Human Services (DHS). This is made available to the public on request and is available from the EGW website as well.

Environment Report

This report is also produced annually. It contains a summary of activities and results for all of East Gippsland Water's Environment Protection Agency licences.

Important Issues

Where an issue of impact arises (e.g. Permanent Water Savings Rules, Customer Charter, Water Plan, Water Restrictions), copies of the position papers and invitations for comment are sent to stakeholders and interested parties from our key contacts list. Follow up contact is made providing an opportunity for feedback.

For issues of a more urgent or important nature (i.e. water quality notices, staged restrictions, Buchan incident, Nowa Nowa incident) notices are distributed to all affected customers by bulk mail out. Issues documents (e.g. Permanent Water Savings Rules) are placed on the website with an open invitation for public comment.

Press releases and advertorials are utilised to gain coverage of issues and events of importance through the written and broadcast media.

Information Pamphlets

These cover a wide range of topics, both informative and advisory, about water and wastewater matters. The pamphlets are circulated on request and distributed at presentations, tours etc. They help support EGW's educative role and stimulate customer thought on water issues. They are also available on the EGW website.

Savewater.com

EGW is a supporter of savewater.com.au. Advice on Savewater.com information and customer competitions is inserted with rates notices issued to customers. This provides a valuable additional means of interaction with customers.

Regular Newspaper Columns

With recent extreme natural events and their impact on water supplies, EGW have initiated a weekly newspaper column to inform customers of water storage levels and current restrictions. Whilst this has primarily been aimed at customers in the Mitchell River Water Supply System, it provides information relevant to all customers.

[16] East Gippsland Water, Water Quality Report 2005/2006

Appendix D - East Gippsland Water Proposed Capital Projects by location and service

DETAILS	LOCATION	Total 06/07 Budget	Actual to Apr 07	Forecast to 30th June 07	Annual 2007/2008 Budget	Annual 2008/2009 Budget	Annual 2009/2010 Budget	Annual 2010/2011 Budget	Annual 2011/2012 Budget	Annual 2012/2013 Budget
WATER		$	$	$	$	$	$	$	$	$
9111	Bairnsdale	3,385,000	1,838,228	7,396,000	7,261,000	9,580,000	6,020,000	250,000	100,000	1,015,000
9113	Lindenow	-	-	300,000	20,000	180,000	-	-	-	-
9121	Omeo	-	73,872	103,517	50,000	250,000	-	-	-	-
9122	Dinner Plain	-	(2,635)	-	75,000	75,000	-	-	-	-
9123	Swifts Creek	1,300,000	652,022	1,300,000	-	-	-	-	-	-
9130	Lakes	80,000	167,953	436,000	1,955,000	6,485,000	3,702,000	1,485,000	-	-
9140	Orbost	-	57,675	63,000	-	-	-	-	-	-
9137	Buchan	1,300,000	1,207,250	1,300,000	-	-	-	-	-	-
9138	Nowa Nowa	803,000	841,534	884,000	-	-	-	-	-	-
9142	Cann River	1,365,000	1,236,094	1,365,000	30,000	-	-	-	-	-
9143	Bemm River	1,170,000	1,165,272	1,170,000	-	-	-	-	-	-
9150	Mallacoota	214,000	73,322	114,000	100,000	-	-	300,000	-	-
9170	EGW	691,000	862,672	1,575,000	1,570,000	1,960,000	1,495,000	1,375,000	1,415,000	1,420,000
Total Capital Works Water		**10,308,000**	**8,173,259**	**16,006,517**	**11,061,000**	**18,530,000**	**11,217,000**	**3,410,000**	**1,515,000**	**2,435,000**

Appendix D Continued…

DETAILS	LOCATION	Total 06/07 Budget	Actual to Apr 07	Forecast to 30th June 07	Annual 2007/2008 Budget	Annual 2008/2009 Budget	Annual 2009/2010 Budget	Annual 2010/2011 Budget	Annual 2011/2012 Budget	Annual 2012/2013 Budget
WASTEWATER		$	$	$	$	$	$	$	$	$
9211	Bairnsdale	228,500	65,524	405,000	350,000	25,000	25,000	25,000	125,000	175,000
9212	Paynesville	1,050,000	342,582	415,000	500,000	1,430,000	-	150,000	100,000	-
9221	Omeo	25,000	3,102	25,000	25,000	-	50,000	-	-	-
9222	Dinner Plain	750,000	26,879	80,000	50,000	-	50,000	-	500,000	500,000
923	Lakes	65,000	119,867	251,000	245,000	905,000	555,000	-	-	-
9231	Metung	160,000	106,262	820,000	1,050,000	1,200,000	-	-	-	-
9232	Bruce's Track	460,000	564,720	600,000	50,000	140,000	-	-	-	-
9240	Orbost	20,000	28,990	66,000	-	150,000	-	50,000	300,000	-
9242	Cann River	40,000	60,255	60,000	270,000	-	-	-	-	-
9250	Mallacoota	1,200,000	47,974	50,000	1,200,000	-	-	-	-	-
9270	EGW	885,000	1,010,241	1,532,000	860,000	1,050,000	860,000	950,000	960,000	950,000
Total Capital Works Wastewater		**4,883,500**	**2,376,396**	**4,304,000**	**4,600,000**	**4,900,000**	**1,490,000**	**1,175,000**	**2,060,000**	**1,700,000**
P&E, MV AND OFFICE & EQUIPMENT										
Motor vehicles		533,640	176,804	360,000	746,600	395,600	616,700	837,800	798,800	328,800
Plant & Equipment		135,280	47,484	115,124	143,600	167,300	101,400	100,500	107,500	100,500
Office & Equipment		827,000	88,186	200,000	2,311,400	391,100	360,000	140,000	140,000	140,000
Total Plant, MV & Office		**1,495,920**	**312,474**	**675,124**	**3,201,600**	**954,000**	**1,078,100**	**1,078,300**	**1,046,300**	**569,300**
Total Capital Works		**16,687,420**	**10,862,129**	**20,985,541**	**18,862,600**	**24,384,900**	**13,785,000**	**5,663,000**	**4,621,000**	**4,704,300**