South Gippsland Water

WATER PLAN 2008/09 to 2012/13

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Chapter 1

WATER PLAN OVERVIEW

1. Water Plan Overview

1.1. Introduction

The South Gippsland Region Water Corporation (South Gippsland Water) presents its final Water Plan covering the 5 year period 1 July 2008 to 30 June 2013.

South Gippsland Water released an exposure draft Water Plan for public comment during July 2007, and now formally submits its final Water Plan to the Essential Services Commission (ESC) in line with its regulatory obligation.

The key role of the final Water Plan is to clearly articulate and commit to a set of outcomes and prices to be delivered over the regulatory period. Informed public debate on the draft and final Water Plan play an important role in ensuring that the outcomes and prices that are ultimately committed to via the Water Plan process are robust and understood by customers.

The ESC is required to assess the Water Plan against certain principles outlined in the Water Industry Regulatory Order (WIRO). On the basis of this assessment the ESC must decide whether to approve or specify the prices or the manner in which prices are to be determined for the services provided by the Corporation over the regulatory period. In deciding whether to approve proposed prices, the ESC must be satisfied that they provide sufficient revenue over the regulatory period to meet obligations and deliver the level of service required by customers.

The ESC is required to assess the detailed assumptions underpinning the proposed revenue requirements for the regulatory period. The expenditure forecasts must reflect efficient costs of supply and the program of work proposed must be deliverable over the period. South Gippsland Water's forecasts of demand and supply (which affect both expenditure and prices) must also be reasonable and reflect the best available information.

Customer service standards proposed must also be clear, appropriate and reflect the needs and interests of customers. The ESC must also be satisfied that prices provide appropriate signals about the costs of providing services and incentives for sustainable water use and take into account the interests of customers.

This Water Plan contains details of outcomes to be delivered by the Corporation in order to meet service provision requirements. It provides explanation of major capital and operating expenditure over the 5 year regulatory period based on South Gippsland Water addressing its primary obligations and provides information on the level of service standards it aims to give customers, regulators and other stakeholders.

The expenditure estimates used to achieve Water Plan outcomes have been calculated using the building block approach. This approach uses the proposed expenditure to determine revenue and therefore price. The proposed prices are set for services as prescribed in the WIRO. The plan has incorporated strategies to provide appropriate signals to customers about the costs of providing services and incentives for sustainable water use.

1.2. South Gippsland Water

South Gippsland is located about 2 hours drive from the south eastern suburbs of Melbourne, and is well known for its coastal resorts and National Parks such as Wilson's Promontory and Tarra Bulga. The Corporation is acutely aware that the region's "natural capital" has a high public profile. South Gippsland is predominantly an agricultural area, with the main emphasis on dairy farming. The region seeks to maximise its strength as a leading Victorian dairy farming and dairy products producer with two major dairy companies located in the area. Tourism is also an industry of significant importance to the region.

The Corporation demonstrates its commitment to the stewardship of the region's "natural capital" through initiatives based on continuous improvement at all our operational facilities, together with programs aimed at raising community awareness. South Gippsland Water supports and participates in local activities with a wide range of community groups involved in broader environmental programs that address the interconnection of all of the elements of the region's ecosystems. South Gippsland Water is fully aware that the services it provides are essential to the economic survival, development and well-being of the region. Accordingly, South Gippsland Water takes into account the programs and activities of other regional agencies in developing its strategies and plans, in so doing, contributing to an integrated regional approach to natural resource management.

The demographics of the region are also undergoing change due to the continuing public demand for coastal residential real estate. Inverloch, Cape Paterson, Venus Bay, Sandy Point, Walkerville and Waratah Bay are examples with rising residential real estate prices and the influx of a new socio-economic segment of customers to the region.

The Corporation produces potable drinking water product from its water treatment plants and treated waste streams from its sewerage treatment plants, while meeting stringent environmental demands and satisfying customer expectations at a cost that is sustainable and a price to consumers that is ratified by the economic regulator. All this achieved with a team that is small by industry standards.

1.2.1. Services Provided by South Gippsland Water

South Gippsland Water employs a multi skilled workforce that covers the disciplines of planning, administration, finance, customer services, engineering, operations and maintenance, and construction management. Most engineering design is outsourced.

The Corporation has a skills-based, seven member Board, appointed by the Minister for Water. The Corporation is managed by an executive team, led by the Managing Director.

South Gippsland Water provides the full range of water supply functions, including water harvesting and storage, water treatment, urban water supply, as well as wastewater collection, treatment, disposal and reuse, and major trade waste services.

Whilst reuse is limited by climate and logistics, 100% (130 ML) of the wastewater from South Gippsland Water's Tarraville treatment plant is currently used for pasture irrigation. Strategic emphasis on environmentally beneficial re-use is expected to result in a significant increase in the re-use of treated wastewater over the coming years. South Gippsland Water has also provided bulk water services, when required, to neighbouring Westernport Water to supplement their storage.

South Gippsland Water's core functions are to provide secure water and wastewater services to around 17,800 customers across approximately 4,000 square kilometres of South Gippsland. The base population of serviced towns is approximately 27,000, a figure that may increase in peak holiday periods by as much as 100%. South Gippsland Water services a substantial area, but is amongst the smallest water corporations in the state when based on number of customers. South Gippsland Water's service area includes 22 towns, including the major centres of Wonthaggi, Inverloch, Leongatha and Korumburra, Table 1.2(a) below.

Table 1.2(a): South Gippsland Water & Sewerage Service Localities

Centre	Population Served (Permanent)	Water		Sewerage	
		Assessments	Supply	Assessments	Discharged
Port Franklin	134	103	Agnes River	Not Serviced	N/A
Port Welshpool	230	261	Agnes River	241	Corner Inlet
Toora	522	504	Agnes River	282	Corner Inlet
Welshpool	151	201	Agnes River	118	Corner Inlet
Fish Creek	191	214	Battery Creek Reservoir	Not Serviced	N/A
Korumburra	3,237	1,855	Coalition Creek storage network	1,557	Foster Creek
Foster	1,053	770	Deep Creek / Foster Dam	675	Corner Inlet
Inverloch	4,548	3,870	Lance Creek Reservoir	3,826	Baxter's Beach/ Private Crop Irrigation
Cape Paterson	788	1,035	Lance Creek Reservoir	1,031	Baxter's Beach
Wonthaggi	7,480	3,819	Lance Creek Reservoir	3,568	Baxter's Beach
Loch	213	142	Little Bass Reservoir	Not Serviced	N/A
Nyora	573	314	Little Bass Reservoir	Not Serviced	N/A
Poowong	327	178	Little Bass Reservoir	Not Serviced	N/A
Koonwarra	143	67	Ruby Creek storage network	Not serviced	N/A
Leongatha	4,369	2,725	Ruby Creek storage network	2,520	Little Ruby Creek
Leongatha	Murray Goulburn Cooperative	N/A	N/A	N/A	Venus Bay
Alberton	157	149	Tarra River	Not Serviced	N/A
Devon North	74	123	Tarra River	Not Serviced	N/A
Port Albert *	262	384	Tarra River	318	Private Pasture Irrigation
Yarram	1,879	1,148	Tarra River	1,035	Private Pasture Irrigation
Dumbalk	138	105	Tarwin River – East Branch	Not Serviced	N/A
Meeniyan	414	252	Tarwin River – West Branch	Not Serviced	N/A
Waratah Bay	125	Not Serviced	N/A	108	Pasture irrigation by Corporation

Notes:

Population Served based on ABS 2001 Census data updated with local government growth factor from "Victorian Population Bulletin 2006, Annual Edition, Issue 12".

*Estimate based on 1996 ABS data.

Water and Sewerage Assessments = Number of Rated Properties.

The Waratah Bay wastewater was commissioned late 2006.

South Gippsland Water's service area also includes a number of towns listed in Table 1.2(b) below, with varied development potential, which currently receive no water or wastewater services. Small town water and sewerage schemes and their funding are a major issue for the region.

Table 1.2(b): Un-serviced Towns/Localities (Water & Sewerage)

Town	**Population** *(permanent)* **(ABS - 2001** updated with local government growth factor from "Victorian Population Bulletin**)**	**Allotments ***
Greater Development Potential		
Venus Bay	470	1,100
Tarwin Lower	135	98
Sandy Point	210	590
Walkerville, Walkerville South	264	167
Lesser Development Potential		
Bena	<100*	~55*
Harmers Haven	~150*	~65*
Manns Beach	<100*	<50*
Mc Loughlins Beach	<100*	<50*
Robertsons Beach	<100*	<50*
Woodside	<100*	<55*
Woodside Beach	<100*	<50*

Notes:

* Estimated population and allotments

1.2.2. South Gippsland Water Infrastructure

South Gippsland Water has significant headworks assets with 13 reservoirs and 18 service storages. The quality of water sources varies significantly across South Gippsland Water's region leading to specific water quality control challenges.

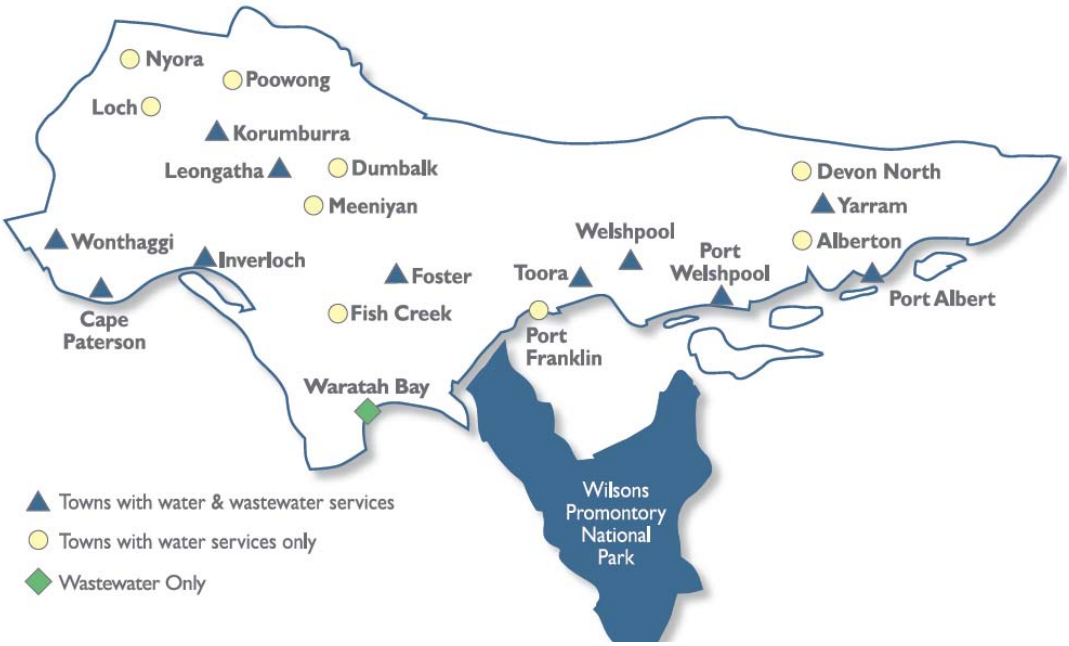
South Gippsland Water's total operation comprises:

- A Headworks function comprising:
  - Water catchments with a total area of 1,234 square kilometres
  - 13 reservoirs and 18 service storages
  - Bulk water supplier of raw water to Westernport Water, from time to time, from Lance Creek system
- A Water Services function comprising:
  - 10 separate water supply systems
  - 10 water treatment plants
  - 615km of water mains
  - 17 water pump stations
  - servicing some 17,800 assessments in 21 rural centres with around 4,934ML's (2006/07) annual volume of metered water
- A Sewerage Services function comprising:
  - 11 conventional wastewater collection systems
  - 1 vacuum wastewater system
  - 10 sewerage treatment plants
  - 1 dedicated saline tradewaste system
  - 369km of wastewater mains
  - 45 wastewater pump stations

- 5 marine environment outfalls
- 2 inland water discharge points
- servicing some 14,800 wastewater assessments in 12 towns collecting and treating 3,148ML's (2006/2007) of wastewater.

South Gippsland Water's service area (shown in Map 1.2 below) extends from Wonthaggi and Nyora in the west to Yarram and Port Albert from the coastal centres facing Bass Strait in the south through to the Strezlecki Ranges in the north. The western boundary adjoins Westernport Water, the northern boundaries adjoin South East Water, Gippsland Water and East Gippsland Water.

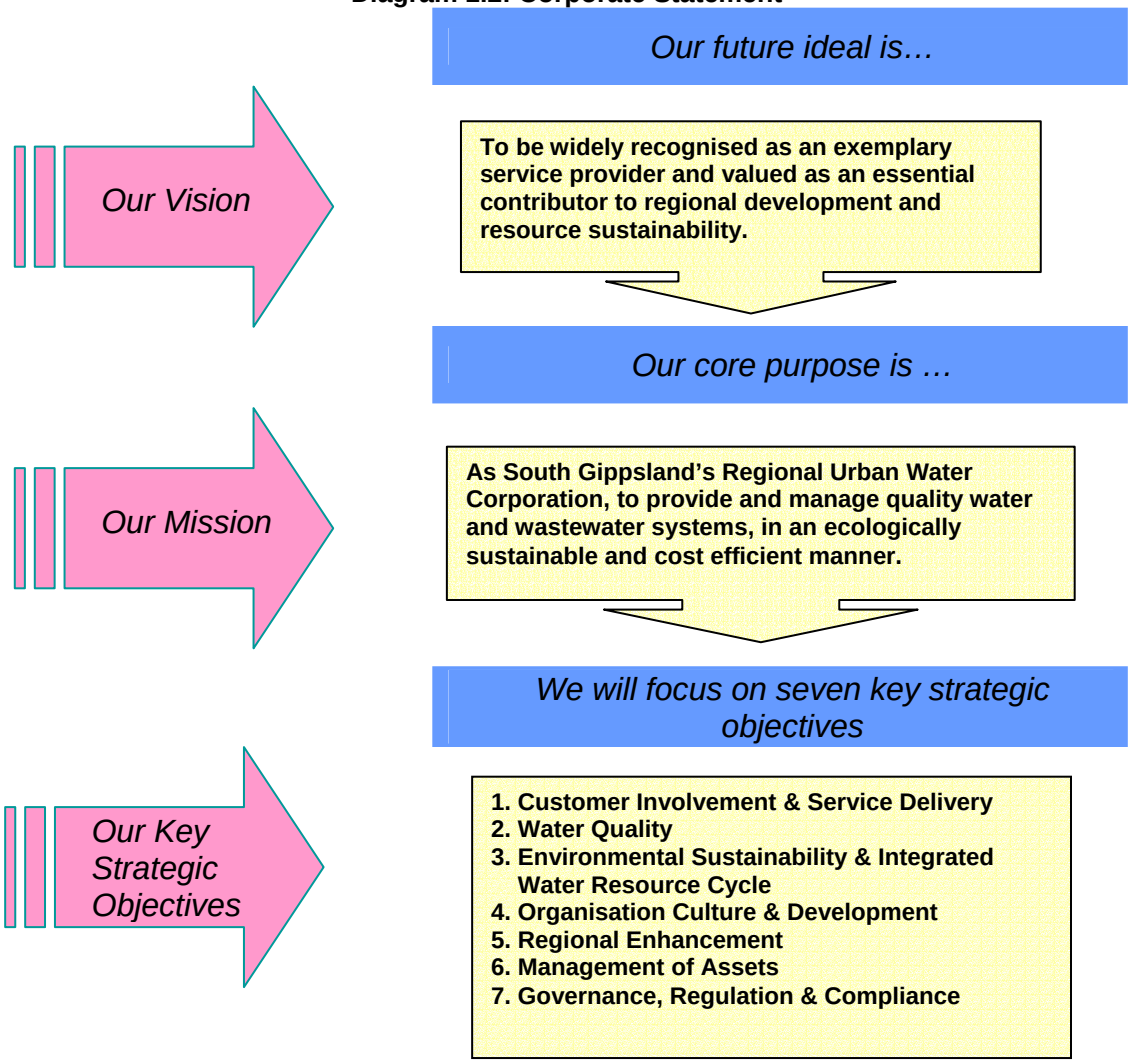
Map 1.2: South Gippsland Water Service Area



1.2.3. Mission, Vision and Objectives

The strategic issues facing South Gippsland Water, on which this Water Plan are based, are articulated through corporate Vision and Mission statements and through identification of Key Strategic Objectives summarised below.

Diagram 1.2: Corporate Statement



The seven Key Strategic Objectives, including priorities are summarised below.

Customer Involvement and Service Delivery

Priorities

- Continue the high priority and commitment to our customers.
- Maintain compliance with the Essential Services Commission requirements on customer contact and consultation.

Water Quality

Priorities

- Increase customer satisfaction with water quality.
- Meet or exceed the new water regulations.

Environmental Sustainability & Integrated Water Resource Cycle

Priorities

- Sustain the environment and manage wastewater systems to optimise the link with the integrated water cycle resource.
- Secure sustainable future water resources for customers of South Gippsland Water.

Organisation Culture & Development

Priorities

- Support of our staff by providing information and enhanced knowledge and systems to ensure continued quality performance.
- Access appropriate resources to provide a sustainable work environment.
- Continue working with staff to ensure a healthy and safe work environment.

Regional Enhancement

Priorities

- Facilitate regional development and the provision of enabling infrastructure.

Management of Assets

Priorities

- Implement a fully integrated asset management system to improve knowledge, asset performance and utilisation.

Governance, Regulation & Compliance

Priorities

- Continue to meet standards for compliance, financial sustainability and performance of the organisation – through sound and prudent governance.

Chapter 2

EXECUTIVE SUMMARY

2. Executive Summary

2.1. Introduction

This is South Gippsland Water's second Water Plan, covering the period July 2008 to June 2013.

It details outcomes to be delivered by the Corporation to meet customer service demands and supply in compliance with legislative and regulatory obligations.

The Plan details the key factors that will allow the Water Industry's primary economic regulator, the Essential Services Commission (ESC) to review, assess and approve water and wastewater prices that South Gippsland Water will be able to charge for the 5 year period of the Water Plan.

In short, these key factors include:

- Regional Growth and Demand on Systems;
- Service Delivery expectations;
- Capital Expenditure requirements;
- Operating Expenditure; and
- Revenue required and related pricing proposals.

The weighted average price increase to the average customer (a domestic customer with a water and wastewater service) as a result of the commitments and outcomes presented in this Water Plan is 3.5% p.a. before inflation.

The average yearly water and wastewater bill will increase by $19 p.a. for households of Wonthaggi, Inverloch and Cape Paterson (Southern Customers) and $30 p.a. for all other households (East/West Customers).

The increases are based on an average district water usage (122kL's and 141kL's p.a. respectively) and are for each of the five years of the regulatory period.

The following key drivers are responsible for the increase in tariffs:-

- Changes in operations to meet existing or improved service levels, i.e.:
  - Small Country Town Sewerage Schemes/Waste Management Schemes at Meeniyan, Poowong/Loch/Nyora, Dumbalk and Yanakie;
  - Chloramination at Lance Creek in order to meet water quality standards;
  - Ensuring provision of water to customers in ongoing drought conditions;
  - improved river health monitoring in line with current requirements;
  - The Corner Inlet EPA offset program;
  - implementing asset management systems into the core business functions; and
  - Forecast significant increases in electricity costs.

A 1%pa productivity target has been factored into the forecast expenditures.

- Continuing high capital expenditure

  At $47.9M, the capital expenditure forecast for the regulatory period substantially exceeds net cash from operations, meaning that South Gippsland Water will continue to draw down considerable amounts of debt in order to finance works. This also impacts on returns of and on capital which in turn places pressure on pricing.

  Capital expenditure is predominately driven by growth, Small Country Town Sewerage Schemes ($11.9M) and headworks augmentations ($8.6M), while compliance, dams safety rectification works ($6.8M) and renewals, water/wastewater mains rehabilitation and water and wastewater plan renewals comprise the bulk of the remainder.

  The envisaged capital works will provide for meeting community growth and restriction levels of service, regulatory obligations (including drinking water quality and environmental performance), and customer service standards.

South Gippsland Water in preparing this plan is clearly aware of what is considered to be a changing region with varying requirements and demands.

The Corporation's key challenge is that of providing vertically integrated systems harvesting water, managing headworks, treating and transporting water for human consumption and the treating of wastewater, all in eleven separate service areas over 4,000 square kilometres of regional and coastal Victoria.

2.2. Desalination

On the 19th June the Premier announced that the State Government would be building a $3.1 billion desalination plant in the Wonthaggi Region to provide drinking water to Melbourne by 2011.

It was also announced that the plant would provide additional water to South Gippsland and a further pipeline would be built to allow South Gippsland to access the water.

Engineering details and commercial arrangements surrounding this supply of water are as yet unknown to South Gippsland Water. However, if desalinated water is found to be a viable option for South Gippsland all future water supply augmentations as set out in the South Gippsland Water, Water Supply Demand Strategy and this Water Plan would need to be re-evaluated.

As such, South Gippsland Water has proposed triggers for a determination review in order to deal with the effects on operational and capital expenditure that the proposed desalination plant may have on South Gippsland Water (refer Section 7.4.2). This could include connection and capacity fees, significant new pipe networks, revised operating processes, etc.

2.3. Overview of revenue requirement and proposed annual price change

The revenue required by South Gippsland Water to deliver the outcomes of the Water Plan is in summary made up from the following elements:

- Operational expenditure;
- Return on assets to 30 June 2008;
- Regulatory depreciation of assets to 30 June 2008;
- Return on new assets; and
- Regulatory depreciation of new assets.

2.3.1. Operating Expenditure

Operating expenditure is by far the major component (63%) of the Corporation's revenue requirement.

The operating expenditure:

- Has an established baseline derived from historical expenditure;
- Contains expenditure associated with the introduction of new regulatory obligations;
- Contains expenditure related to increasing commitment to exiting environmental requirements; and
- Contains a productivity improvement adjustment of 1% p.a.

2.3.2. Key Drivers

The key drivers of increased operating expenditure as detailed in this plan are summarised below:

Compliance With
Water Act 1989
Statement of Obligations
Drought Management
Water Industry Act 1994
Safe Drinking Water Act 2003
Safe Drinking Water Regulations 2005
EPA Licences
EPA Regulatory Obligations
Demand Reduction Strategies

The obligations and outcomes expected together with the resourcing requirements and expenditure of each key driver have been developed and detailed in the Plan.

2.3.3. Capital Expenditure

Capital Expenditure is a further significant component of the Corporation's revenue requirement.

Capital expenditure is predominately driven by growth (Small Country Town Sewerage Schemes and headwork/augmentations) compliance (dams safety

rectification works) and renewals (water/wastewater mains rehabilitation and water and wastewater plant renewals).

2.3.4. Revenue Requirement and Proposed Annual Price Change

South Gippsland Water can recover the cost of financing existing and new investments through:

- earning a return on the value of its Regulatory Asset Base (RAB) (i.e. the Weighted Average Cost of Capital multiplied by the RAB); plus
- a return of the value of the RAB (i.e. regulatory depreciation).

Table 2.3 Revenue Requirement
$ million in January 2007 prices

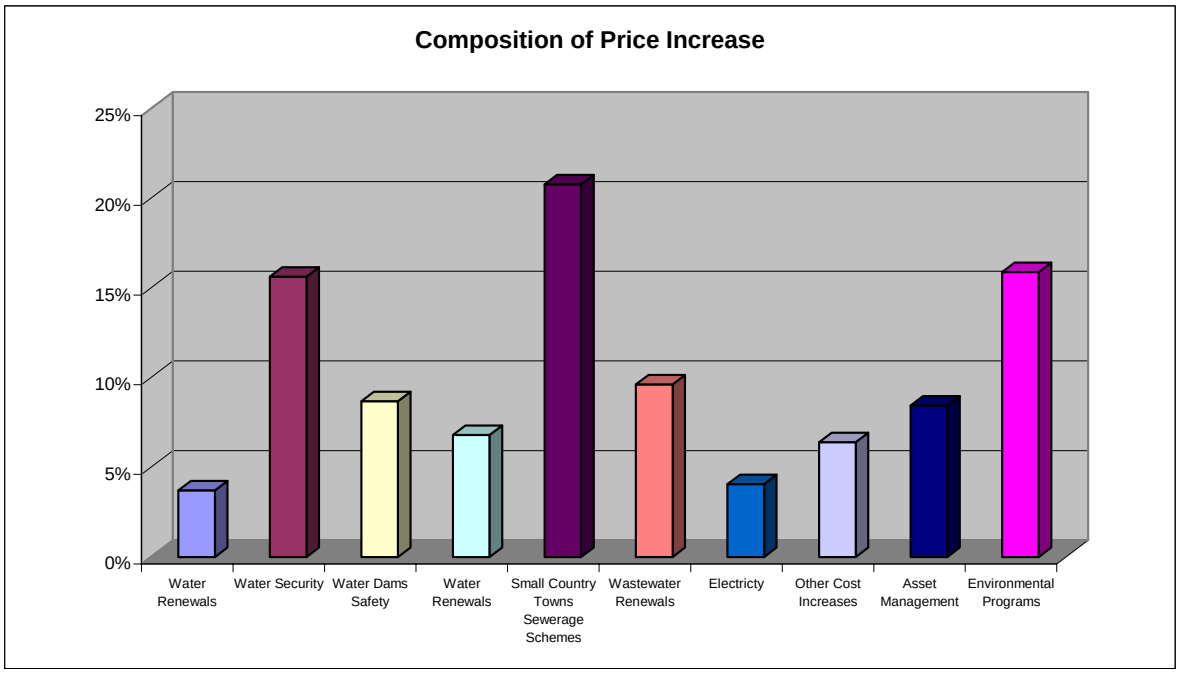
	2008-09	2009-10	2010-11	2011-12	2012-13
Operating expenditure	12.41	12.02	12.22	12.25	12.38
Return on assets to 30/6/08	3.33	3.18	3.04	2.89	2.76
Regulatory depreciation of assets to 30/6/08	2.53	2.53	2.53	2.36	2.13
Return on new assets	0.28	0.80	1.22	1.57	1.87
Regulatory depreciation of new assets	0.11	0.32	0.50	0.65	0.78
Adjustments from last period	0.00	0.00	0.00	0.00	0.00
Benchmark tax liability	0.00	0.00	0.00	0.00	0.00
Total revenue requirement	**18.67**	**18.85**	**19.51**	**19.73**	**19.92**

Table 2.3 above shows operating expenditure is generally constant at just over $12M p.a., while the return of and on assets decreases over the Water Plan period as regulatory depreciation is recovered.

The resulting price increase to an average customer from the above revenue requirement is 3.5% (real) p.a.

Graph 2.3 shows each component of South Gippsland Water's price increase in proportional terms. The bars represent both the impact of capital and operating expenditure. It shows that at 21%, Small Country Town Sewerage Schemes contribute most to the price increase. Water security projects and initiatives and Environmental Programs (in the main improved river health monitoring) both comprise 16% of the price increase.

Graph 2.3 Composition of Price Increase – 2008/09 to 20012/13



Small Country Town Sewerage Schemes are part of the Corporations Statement of Obligations, while the water security projects are required to provide appropriate level of service to meet customers' needs.

2.4. Overview of key outcomes for the period

Over the regulatory period, South Gippsland Water is committed to deliver service standards and other related outcomes. Many of these service standards and outcomes are driven by obligations to Government and regulatory agencies.

These are summarised in Table 2.4 below.

Table 2.4 Obligations from Regulatory Agencies and the Government

Act/Legislation/Document	Service Outcomes
Water Act 1989	To provide Water and Sewerage services to customers.
Statement of Obligations	Selected outcomes as set down by Government.
Water (Governance) Act 2006	New obligations in reference to corporate identity. Enforcement of Water Restriction rules. Embedding Sustainability into Water businesses.
South Gippsland Water Customer Charter	Commitments to customers regarding the provision of service, including standards and conditions of supply for prescribed services.
EP Act, State Environmental Protection Policy and Principles to establish EPA Environmental Obligations for Water Businesses for 2008-2013 Pricing Determination	Under the Power of the Act and as the State Environmental Protection Policy, setting out environmental requirements that water corporations are obliged to address.
Safe Drinking Water Act 2003 and Safe Drinking Water Regulations 2005	Sets out demand and quality standards that are required to be met for drinking water. Risk management requirements for water supply system. Disclosure of relevant information.

The Water Plan sets out in detail these obligations, the outcomes expected and the resourcing required or works required to achieve the outcomes.

Meetings have been held with the external regulators to discuss the obligations as they apply to South Gippsland Water and detailed guidance has been provided by the Environmental Protection Authority, Department of Human Services and the Department of Sustainability and Environment.

The obligations and requirements driven by regulatory agencies and the Government have also been a core part of the Corporation's specific consultation process.

2.5. Overview of expenditure forecasts

2.5.1. Operating Expenditure

Consistent with the approach taken in previous price reviews, South Gippsland Water has assessed its operating expenditure by establishing a baseline or 'business as usual' level of costs derived from its historical and current expenditure.

South Gippsland Water like many Victorian water corporations is experiencing increased costs in the current regulatory environment. Total operating costs are forecast to increase from $11.3M in 2007/08 ($12.2M in 2006/07 due to drought response works) to an average of $12.2M p.a. over the 5 years of this Water Plan.

A number of factors have contributed to these higher costs, including new regulatory obligations and resources required to meet existing standards and expectations.

More specifically, the key drivers for increased operating expenditure are linked to changes in operations to meet existing or improved service levels, i.e.:

- Small Country Town Sewerage Schemes/Waste Management Schemes at Meeniyan, Poowong/Loch/Nyora, Dumbalk and Yanakie;
- Chloramination at Lance Creek in order to meet water quality standards;
- Ensuring provision of water to customers in ongoing drought conditions;
- improved river health monitoring in line with current requirements;
- The Corner Inlet EPA offset program;
- implementing asset management systems into the core business functions; and
- Forecast significant increases in electricity costs.

A 1% p.a. productivity target has been factored into the forecast expenditures.

2.5.2. Capital Expenditure

At $47.9M, the capital expenditure forecast for the regulatory period substantially exceeds net cash from operations, meaning that South Gippsland Water will continue to draw down considerable amounts of debt in order to finance works. This also impacts on returns of and on capital which in turn places pressure on pricing.

Capital expenditure is predominately driven by growth (Small Country Town Sewerage Schemes ($11.9M) and headworks augmentations [$8.6M], while compliance (dams safety rectification works [$6.8M]) and renewals (water/wastewater mains rehabilitation and water and wastewater plan renewals) comprise the bulk of the remainder.

The envisaged capital works will provide for meeting community growth and restriction levels of service, regulatory obligations (including drinking water quality and environmental performance), and customer service standards.

2.6. Overview of proposed tariff structures

In line with its White Paper obligations and customer consultation outcomes, South Gippsland Water has reviewed its water and wastewater tariff structures.

The over-riding objective for South Gippsland Water in setting prices is to ensure that customers are provided with efficient signals about the costs of providing services and incentives for sustainable water use.

As a result of the reviews, South Gippsland Water has rejected the implementation of Inclining Block Tariffs for water and Volumetric Sewerage Charges for wastewater.

South Gippsland Water will continue its staged rebalancing between the two different district water service charges (i.e. implementation of a uniform water service charge) and increase the volumetric water revenue relative to fixed service charges.

These two principles will result in higher costs for water as opposed to wastewater services. The most impacted customers will be:

- Water customers in the East/West district as the convergence to a uniform rate is implemented, however, even at the end of the Water Plan period they are around $30.00 (in real terms) better off than Southern customers.
- Tenants (whom pay only the volumetric component of water tariffs) and large water users (where the service charge comprises a relatively minor component of their account). These customers will experience increase in the order of 8% real p.a.

South Gippsland Water intends to undertake a proactive approach to alleviating hardship of vulnerable customers who are affected by the proposed price structure. Based on its customer information, South Gippsland Water intends to identify its most vulnerable customers and directly contact these customers to outline the avenues available for assistance if needed. This will include customers who are both tenants and concession card holders, particularly those whose use exceeds the maximum rebate amount, as well as concession card holders who are high water use customers.

South Gippsland Water believes that the proposed retail water and wastewater tariff structure achieves a number of the pricing objectives, i.e. that prices are:

- easily understandable and easy to administer;
- subject to a relatively uniform price rise each year over the regulatory period;
- able to encourage sustainable water practises through the volumetric component of the water charge; and
- set such as to reduce pricing on an individual locality basis, which could be deemed as unfair by some customers.

2.7. Overview of customer consultation

South Gippsland Water utilises a number of methods to communicate and consult with its customers. These methods have enabled the Corporation to ascertain the views and preferences regarding our services from industry, community groups, small business and associated schools and sporting clubs.

The type of customer consultation/customer communication methods undertaken by the Corporation have included:

- Annual Customer Survey
- Meetings with local community and special interest groups
- Customer Reference/Advisory Committees
- Specific Water Plan Customer Consultation Process
- Long Term Water Supply Demand Strategy Workshops
- Draft Water Plan information sessions/workshops
- Publications
    - Newletters
    - Corporate Plan
    - Annual Report
    - Educational Pamphlets

The communication and consultative programs set out operating proposals and issues in order to gain customer feedback.

The programs also ensured general feedback and gave ample opportunity for customers to indicate where improvements were needed and issues to be addressed.

Specific areas and issues for consultation included:

- Long Term Water Supply Demand
- Dam Safety
- Water and Wastewater Pricing
- Regional Tariff Alignment
- Service Standards
- New Customer Contributions
- Guaranteed Service Levels
- Environmental Impacts

Feedback on these key issues has been summarised in this Water Plan and key issues raised, customers' views, concerns and suggestions have been addressed or taken into consideration in the development of the Water Plan.

Chapter 3

OUTCOMES FOR FIRST REGULATORY PERIOD

3. Outcomes for First Regulatory Period

3.1. Introduction

As part of the review of urban prices in 2005, South Gippsland Water developed a Water Plan which identified a set of outcomes and prices that would be delivered over the first regulatory period. This section of the Water Plan outlines South Gippsland Water's progress in delivering those outcomes.

3.2. Core Service standards

As part of the Water Plan for the first regulatory period, South Gippsland Water committed to meet approved targets for a core set of service standards. South Gippsland Water also committed to meeting targets for an additional service standard that reflected business specific services and localised issues.

Table 3.2 below details the Corporation's progress to date in the delivery of the service standards for the three year regulatory period 1 July 2005 to 30 June 2008.

Table 3.2: Delivery of Service Standards

	FIRST REG PERIOD								
	2005/06 Actual			2006/07 Actual			2007/08 Forecast		
	Actual	Target	Var.	Forecast	Target	Var.	Forecast	Target	Var.
Water									
Unplanned water supply interruptions (per 100km)	22.7	37.0	38.6%	26.3	37.0	28.9%	37.0	37.0	0.0%
Average time taken to attend bursts and leaks (priority 1)	13.4	30.0	55.3%	13.6	30.0	54.7%	30.0	30.0	0.0%
Average time taken to attend bursts and leaks (priority 2)	23.3	40.0	41.8%	28.7	40.0	28.3%	40.0	40.0	0.0%
Unplanned water supply interruptions restored within 5 hours (per cent)	98.2	99.0	0.8%	98.0	99.0	-1.0%	99.0	99.0	0.0%
Planned water supply interruptions restored within 5 hours (per cent)	100.0	99.0	1.0%	98.0	99.0	-1.0%	99.0	99.0	0.0%
Average unplanned customer minutes off water supply	26.2	37.2	29.5%	29.6	36.5	18.9%	36.2	36.2	0.0%
Average planned customer minutes off water supply	137.5	158.7	13.3%	63.5	158.7	60.0%	158.8	158.8	0.0%
Average unplanned frequency of water supply interruptions	0.31	0.37	16.2%	0.26	0.37	29.7%	0.36	0.36	0.0%
Average planned frequency of water supply interruptions	0.52	0.50	-4.0%	0.25	0.50	50.0%	0.50	0.50	0.0%
Average duration of unplanned water supply interruptions (minutes)	85.5	100.0	14.5%	115.9	100.0	-15.9%	100.0	100.0	0.0%
Average duration of planned water supply interruptions (minutes)	263.2	320.0	17.8%	255.4	320.0	20.2%	320.0	320.0	0.0%
No. of customers experiencing more than 5 unplanned water supply interruptions in the year	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%
Unaccounted for water	14.3	15.0	4.8%	14.0	14.0	0.0%	14.0	14.0	0.0%
Sewerage									
Sewerage blockages (per 100km)	13.7	6.5	-110.8%	16.8	20.5	18.0%	20.5	20.5	0.0%
Average time to attend sewer spills and blockages (minutes)	24.4	30.0	18.7%	24.2	30.0	19.3%	30.0	30.0	0.0%
Average time to rectify a sewer blockage (minutes)	109.6	120.0	8.7%	113.0	120.0	5.8%	120.0	120.0	0.0%
Spills contained within 5 hours (per cent)	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	0.0%
No. of customers receiving more than 3 sewer blockages in the year	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%
Customer service									
Complaints to EWOV	0.4	1.1	62.2%	1.1	1.1	0.0%	1.1	1.1	0.0%
Telephone calls answered within 30 seconds	99.0	98.0	1.0%	99.0	98.0	1.0%	98.0	98.0	0.0%
Minimum flow rates									
20mm	20								
25mm	35								
32mm	60								
40mm	90								
50mm	160								
Additional service standards									
Average time taken to attend bursts and leaks (priority 3)	43.7	50.0	12.6%	38.0	50.0	24.0%	50.0	50.0	0.0%

The table shows that South Gippsland Water performed well in meeting its regulatory service standards in 2005/06 with only two non-complying results, viz:

1. **Average planned frequency of water supply interruptions**
   Actual 0.52
   Target 0.50

Explanation of Service Standard: This standard measures how often, on average, a customer will experience a planned interruption. One water supply interruption will generally inconvenience a number of customers. For example an event that causes 50 customers to lose supply is recorded as one water supply interruption and 50 customer interruptions.

Reason for non-compliance: South Gippsland Water adopts a proactive water mains cleaning program which involves air scouring, pig cleaning and flushing. The air scouring and pig cleaning program requires planned interruptions and it is programmed that each system be cleaned on a two year cycle. That is, a target of 0.50 means South Gippsland Water plans to interrupt 50% of its customers in any given year. This frequent cleaning program is necessary to limit dirty water complaints, due to the high manganese in most of the raw water sources in the South Gippsland region, as well as to ensure that adequate bacteriological quality can be maintained.

South Gippsland Water narrowly missed meeting this particular service standard.

2. **Sewerage Blockages (per 100km's)**
   Actual 13.7
   Target 6.5

Explanation of Service Standard: This standard measures the frequency of sewerage system failure (blockages per 100 km's of main) and together with other indicators points to the overall reliability of the sewerage services.

Reason for non-compliance: During the First Water Plan South Gippsland Water utilised faulty data in identifying its target of 6.5 blockages per 100km's of main. Since that time, South Gippsland Water has worked with the ESC to vary the service standard in line with actual past performance. The ESC has since approved a new service standard of 20.5 blockages per 100km's of main from 1 July 2006.

Clearly South Gippsland Water's 2005/06 target of 6.5 was never achievable.

South Gippsland Water met all but three of its service standards for the financial year 2006/07, as set out below.

1. **Unplanned water supply interruptions restored within 5 hours (%)**
   Actual 98.0%
   Target 99.0%

Explanation of Service Standard: This measure looks at the promptness of a water business in restoring supply once it shuts down a water main for unplanned interruptions. South Gippsland Water's Customer Charter standard is to restore 99.0% of interruptions within 5 hours.

Reason for non-compliance: The frequency of interruptions can be influenced by the extent to which soils swell and shrink in response to changes in moisture content. Given the extended drought conditions across Victoria, South Gippsland Water has experienced higher than average water mains bursts and leaks. The resources drain of providing water in a drought situation combined with the higher prevalence of bursts and leaks has impacted on the ability of the operations workforce to meet this service standard.

2. **Planned water supply interruptions restored within 5 hours (%)**
   Actual 98.0%
   Target 99.0%

Explanation of Service Standard: This measure looks at the promptness of a water business in restoring supply once it shuts down a water main in for planned interruptions. South Gippsland Water's Customer Charter standard is to restore 99.0% of interruptions within 5 hours.

Reason for non-compliance: South Gippsland Water had 1 planned interruption (in a total of 60 for the year) in excess of 5 hours duration. This was due to problems experienced by a contractor carrying out mains replacement works.

3. **Average duration of unplanned water supply interruptions (minutes)**
   Actual 115.9
   Target 100.0

Explanation of Service Standard: Average interruption duration indicates how long it takes on average to restore supply when an interruption occurs. It is measured from the time water supply is shut down until it is returned to normal service levels.

Reason for non-compliance: As for 1 above, the operations workforce has faced considerable pressures with respect to the quantity and extent of mains bursts and leaks. As such, the ability to respond and rectify interruptions within service standards has been affected.

3.3. Drinking Water Quality

South Gippsland Water monitors and manages the quality of drinking water supplied to customers with the aim of ensuring its potential health, aesthetic and economic impacts are appropriately managed. With respect to health impacts, these may result from the presence of microorganisms such as bacteria and viruses due to, for

example, the faecal contamination of source water or from the presence of chemicals that are in the water as a result of water treatment (such as aluminium, chlorine), natural occurrence (such as minerals) or agricultural and/or mining activities (such as pesticides).

South Gippsland Water has implemented water quality monitoring programs consistent with the regulatory requirements of the Safe Drinking Water Act 2003 and the Safe Drinking Water Regulations 2005. Parameters required to be monitored include:

Microbiological:	Escherichia coli
Physico-chemical:	Turbidity
	Aluminium
Disinfection by-products:	Trihalomethanes
	Chloroacetic Acid
	Dichloroacetic Acid
	Trichloroacetic Acid
Ozone based chemicals:	Bromate
	Formaldehyde

As South Gippsland Water does not use ozone for treatment or disinfection, chemicals such as bromate and formaldehyde that are derived from the use of ozone are not likely to be present in the drinking water and therefore have not yet needed to be sampled and analysed. In addition to compliance monitoring, South Gippsland Water also conducted specific water quality monitoring based on the health and aesthetic considerations outlined in the Australian Drinking Water Guidelines 2004.

All water samples collected and reported as part of the monitoring programs conducted by South Gippsland Water are independently analysed by a NATA certified laboratory.

South Gippsland Water publishes an annual drinking water quality report in line with its information disclosure obligations.

Percentage compliance detailed in Table 3.3 below is for the 2005/06 and 2006/07 financial years and is based on the total number of drinking water samples complying with requirements of the Safe Drinking Water Regulation 2005. Further details of drinking water compliance for each distribution system are reported monthly to the Department of Human Services.

Table 3.3: Drinking Water Compliance

Parameter	Results 2005/06	Results 2006/07
E.coli (<1 E.coli in 98% of samples taken)	99.9% [1]	99.9% [1]
Turbidity (95% upper confidence limit of the mean <=5 NTU)	100.0%	100.0%
Aluminium (<=0.2 mg/L)	99.1% [2]	98.2% [2]
Trihalomethanes (<=250mg/L)	99.4% [3]	95.8% [3]
Chloroacetic Acid (<=150mg/L)	100.0%	100.0%
Dichloroacetic Acid (<=100mg/L)	100.0%	100.0%
Trichloroacetic Acid (<=100mg/L)	100.0%	100.0%

1. Non-compliances in the Toora (2005/06) and Loch (2006/07) water systems are being addressed by additional disinfection facilities and future scheduled system improvements.
2. Enhancements to pH and alum dosing systems together with the introduction of polymer filter aids have been introduced.
3. Treatment options are currently being investigated to further reduce Trihalomethane levels, predominantly in the Wonthaggi and Dumbalk distribution systems.

3.4. Environmental Performance

South Gippsland Water's capital and operational programs include activities associated with continuous improvement in environmental performance consistent with regulatory requirements, the Statement of Obligations and industry best practice. Annexure B of the first Water Plan contained details of these programs.

The environmental activities proposed during the three-year price path; were derived primarily from *Principles to Establish EPA Environmental Obligations for Water Businesses for the 2005 Pricing Determination* (EPA/Victorian Water Industry 2003).

Details of activities and their progress are as follows.

Table 3.4(a): Environmental Activities

Environmental Obligation Aspect	South Gippsland Water Key Activity
Water Conservation	SGW programs focus on community education and demand management.
Implementing the Waste Hierarchy	• Trade waste point source review has been undertaken. Monitoring and reporting capabilities have been improved. • Operations Improvement section has worked with trade waste generators re waste reduction opportunities. • Recycling of treated wastewater has been investigated.
Sewage Treatment and Disposal	Korumburra and Leongatha Wastewater Treatment Plant upgrade works completed.
Biosolids Management	Establishment of sludge processing / handling facility at Leongatha wastewater treatment plant is underway.
Sewerage Planning	SGW is continuing to negotiate with relevant agencies and communities re establishing sewerage schemes for priority small towns.
Management of Sewerage Systems	• Undertaking actions in environmental improvement plans have been undertaken. • A number of system stormwater infiltration investigation works have been undertaken. Problem sections of Welshpool system have been addressed. • Capital expenditure works have been undertaken according to program.
Trade Waste Management	Upgrade works associated with the Regional Saline Wastewater Project have been completed.
Odour Management	Odour survey scheduled for 2007/08.
Greenhouse Gas Management and Energy Efficiency	• SGW has actively participated in Sustainability Victoria greenhouse working group. • Greenhouse gas and energy review of a water treatment system, three wastewater treatment systems, the saline wastewater system and the Foster Office including vehicle fleet has been undertaken.
Licence Compliance	Environmental Improvement Plans incorporating system management plans have been prepared for all licensed systems, except the Venus Bay outfall, licence EW17.
Catchment, Waterway and Groundwater Management	
Provision and Auditing of Environmental Flows	SGW has undertaken an independent audit of three bulk entitlement conversion orders.

Environmental Obligation Aspect	South Gippsland Water Key Activity
Waterway Management Obligations	Advice from other agencies regarding actions to preserve river health has been duly accommodated during emergency water supply activities.
Releases from Storages	An assessment of the effects of water releases from storages is proposed for when water storages return to appropriate levels.
Groundwater Management Provisions	Implications on water table and groundwater has been considered during extractions associated with emergency water supplies
Assessment, Monitoring, Auditing and Reporting	
Monitoring, Auditing and Risk Assessment	SGW environmental management system includes procedures for reviewing risks associated with all projects.
Water Industry Reporting	SGW environmental management system includes procedures for water industry reporting.

During the current Water Plan period, South Gippsland Water's waste discharge licences for several wastewater treatment plants were revised by the Environment Protection Authority (EPA).

The new licence provisions are consistent with State Environmental Protection Policies and the waste hierarchy, embodying consideration of disposal options other than discharge to the environment.

Improvements in wastewater management implemented during the first regulatory period include:

- the upgraded tertiary wastewater treatment plants at Korumburra and Leongatha were commissioned and are generally operating within specifications;
- the allocation of additional resources has improved wastewater management particularly for monitoring, calibration, documentation and reporting;
- investigations continue for options to further improve the operation of Foster and Toora wastewater treatment plants;
- replacement of flow meters has been finalised to improve monitoring of the quantity of wastewater in and out of wastewater treatment plants at Foster, Toora, Wonthaggi, Cape Paterson, and Inverloch; and
- operation of the Toora wastewater treatment plant has been improved by implementing an intermittent discharge process.

Table 3.4(b) following illustrates South Gippsland Water's EPA licence compliance for 2005/06 and 2006/07 at its wastewater systems.

Table 3.4(b): EPA Licence Compliance

Sewerage Treatment Licence Compliance	Actual 2005/06	Actual 2006/07
Foster	96.0%	100.0%
Korumburra	100.0%	100.0%
Leongatha (Domestic)	92.0% 1	100.0%
Leongatha (Trade Waste)	88.0% 2	100.0%
Toora	89.0% 3	100.0%
Welshpool	100.0%	100.0%
Wonthaggi/Cape Paterson/Inverloch	100.0%	100.0%
Yarram	100.0%	100.0%

1. Major wastewater treatment upgrades have resulted in improved wastewater quality since March 2006.
2. System upgrades by trade waste generators have resulted in improved discharge quality. Discharge continuing to improve.
3. BOD and suspended solids have been above the licence limit due to algal growth.

3.5. Demand Outcomes

Table 3.5 summarises the key demand outcomes against forecast for the first regulatory period.

Table 3.5: Comparative Analysis of Forecast vs. Actual Demand in the First Regulatory Period

Year	Unit	2005/2006			2006/2007			2007/2008		
		Actual	Water Plan	Variance	Actual	Water Plan	Variance	Forecast	Water Plan	Variance
Water Connections										
Residential	No.	14,674	14,487	187	14,944	14,659	285	15,195	14,832	363
Non Residential	No.	3,083	3,085	-2	3,119	3,105	14	3,150	3,126	24
Total	No.	17,757	17,572	185	18,063	17,764	299	18,345	17,958	387
Wastewater Connections										
Residential	No.	13,077	12,796	281	13,377	12,969	408	13,653	13,085	568
Non Residential	No.	1,172	1,186	-14	1,185	1,197	-12	1,200	1,207	-7
Total	No.	14,249	13,982	267	14,562	14,166	396	14,853	14,292	561
Urban Water Consumption										
Murray Goulburn	kL's	1,057,388	1,041,205	16,183	837,992	1,030,793	-192,801	780,000	1,020,485	-240,485
Other Major Customer	kL's	563,389	399,869	163,520	470,714	434,924	35,790	474,000	404,073	69,927
Agreement Customers	kL's	666,666	662,000	4,666	735,946	660,000	75,946	735,000	658,000	77,000
Residential & Non-residential	kL's	3,125,629	3,179,813	-54,184	2,838,547	3,174,098	-335,551	2,946,000	3,168,497	-222,497
Total	kL's	5,413,072	5,282,887	130,185	4,883,199	5,299,815	-416,616	4,935,000	5,251,055	-316,055
Developer Lots										
Water	No.	298	178	120	313	178	135	242	178	64
Wastewater	No.	248	88	160	378	88	290	205	88	117
Bulk Water	kL's	-	-	-	625,559	200,000	425,559	-	200,000	-200,000
Wastewater Volumes	kL's	3,791	n/a	n/a	3,420	n/a	n/a	3,456	n/a	n/a
Miscellaneous Revenues										
Inspection Fees	$'s	59,000	60,000	-1,000	54,000	60,000	-6,000	55,000	60,000	-5,000
Information Statements	$'s	47,000	55,000	-8,000	52,000	55,000	-3,000	49,000	55,000	-6,000
Water Tapping Fees	$'s	114,000	100,000	14,000	98,000	100,000	-2,000	103,000	100,000	3,000

The salient issues with respect to demand outcomes are:-

- The number of water connections exceeded estimates (1.2% p.a.) increasing by around 1.6% p.a.
- The number of wastewater connections exceeded estimates (1.2% p.a.) increasing by around 1.9% p.a.

- Total water consumption compared to forecast consumption in the first Water Plan shows fluctuating variations. For 2005/06, water consumption was 2.5% higher than estimated, predominately as a result of major customer usage. While for 2006/07 consumption was lower than estimated due to prolonged drought conditions and resultant extended restrictions. Significant customer engagement and education, in particular with major customers, will result in continuing lower consumption patterns going forward.
- The drought conditions during 2006/07 resulted in a higher than anticipated demand for bulk water from Westernport Water. They pumped 625,599kL's compared to a forecast of 200,000kL's. The significantly higher bulk water sales resulted in extra revenue of around $43,000, however, this put extreme stress on our Lance Creek system which resulted in extra operating costs and lower retail water revenue. South Gippsland Water controled these sales realising that the extended dry conditions would ultimately impact on Lance Creek customers. Westernport Water storage levels fell to just 6% in June 2007, and had South Gippsland Water not provided access to its Lance Creek supplies, they would certainly have run dry in summer.
- Material miscellaneous revenues which comprise inspection fees, information certificates and water tapping fees have largely been as forecast and are expected to continue to remain so.

3.6. Benchmark Revenue and Operating Expenditure

Actual revenue from prescribed services over the regulatory period is estimated to be within $0.1 of benchmark, as demonstrated in Table 3.6(a) below. While increased revenue was received due to higher than anticipated growth in water and wastewater customers, this will be more than offset by the lower volumetric water sales.

Table 3.6(a): Actual versus Benchmark Revenue Requirement

$ million in January 2007 prices

	2005/06	2006/07	2007/08	Total
Benchmark Revenue Requirement	14.3	15.9	16.0	46.2
Actual Prescribed Revenue	14.2	15.5	16.6	46.3
Variation	**-0.1**	**-0.4**	**0.6**	**0.1**

* 2005/06 & 2006/07 are actuals, while 2007/08 is budget.

Actual operating expenditure over the regulatory period is estimated to be $2.7M over the benchmark, as demonstrated in Table 3.6(b). This is in the main due to the impacts of the severe drought conditions across the region.

Table 3.6(b): Actual versus Benchmark Operating Expenditure

$ million in January 2007 prices

	2005/06	2006/07	2007/08	Total
Benchmark Operating Expendiure	10.1	10.9	10.8	31.7
Actual Operating Expendiure	10.9	12.2	11.3	34.4
Variation	**0.8**	**1.3**	**0.5**	**2.7**

* 2005/06 & 2006/07 are actuals, while 2007/08 is budget.

3.7. Delivery of key capital projects

The Water Plan for the first regulatory period identified a number of key capital projects that South Gippsland Water proposed to deliver during 2005/06 to 2007/08. Table 3.7, following, outlines South Gippsland Water's progress in the delivery of those major capital projects.

Table 3.7: Major projects identified in 2005 Water Plan

Project & Project Drivers	Project Description	Outputs to be achieved within regulatory period	Result/ Progress	Project Cost ($M) to date
Regional Saline Wastewater Project				
To meet environmental requirements for all segments of the environment. This includes meeting the general provisions of the Environment Protection Act (1970), State Environmental Protection Policies and Industrial Waste Management Policies.	Yarragon Road pump station upgrade, 11km's of pipe replacement, and replacement of the Venus Bay Outfall structure.	Project to be delivered by the end of 2006-07.	Completed.	$2.66M
Wastewater Treatment Plant Upgrades				
To meet the EPA licence requirements for discharge of effluent into inland waters.	Upgrades to the Korumburra and Leongatha Wastewater Treatment Plants to tertiary treatment standards.	Project to be delivered by the end of 2006-07.	Completed.	$8.52M
Coalition Creek Reservoir Damns Risk Reduction Works				
Dam safety and risk reduction in accordance with ANCOLD guidelines and Statement of Obligations.	Rehabilitation of dam embankment due to excessive seepage and a number of dam safety deficiencies including a lack of stability in the outlet tower during and earth quake event. Works include rebuilding the embankment crest and installing a downstream toe drain.	Project to be delivered by the end of 2005-06.	Works have been deferred to 2007/08/09 to tie in with completion of Long Term Water Supply Demand Strategy outcomes.	n/a
Yarram Off Stream Storage				
To provide security of supply to the customers of the Yarram water system.	Additional 200 ML water storage required to reduce frequency of severe water restrictions and maintain appropriate level of service standards. An off stream storage dam is to be constructed.	Detailed design to commence early 2007-08 with construction works to commence mid 2007-08 with completion in 2008-09.	Rescheduled to be completed by 2011/12.	n/a
Telemetry				
Proactive approach to risk management under Safe Drinking Water Act 2003.	To move from a reactive to a proactive approach to water and wastewater system operation through the implementation of a regional CITEC / SCADA / telemetry system. The system allows integrated, continuous monitoring and control of plant operations for all water and wastewater systems.	All plants telemetry enabled with communications infrastructure in place. Project to be delivered over the regulatory period to 2007-08.	On schedule.	$1.12M
Asset Management				
To enable optimal investment strategies and deliver efficient service outcomes to stakeholders and customers through the effective management of infrastructure assets.	Implementation of a comprehensive and integrated set of management systems, (including Asset Management System, Geospatial Information System), to provide tools for efficient management of assets to minimise the whole of life costs of asset service delivery.	Project to be delivered over the regulatory period with outputs including: • identification and recording of all assets • valuation of assets • works management /activity based maintenance (works, resources, maintenance scheduling and activity history recording) • asset condition and risk register • integration with financials.	Behind schedule. Aiming to get back on schedule by 30 June 2008.	$0.85M
Water Renewals/Replacement				
To rehabilitate/replace inefficient water mains as required by the security of service and asset management provisions of Statement of Obligations. Customer service provisions and operational issues. Risk management works under Safe Drinking Water Act 2003.	Water main replacement program based on established priorities. Works include the progressive replacement of asbestos cement (AC) pipes installed up to the 1970s.	Approximately 5.4 km of water mains.	On schedule.	$0.95M
	Minor upgrade works to the Korumburra, Leongatha and Lance Creek Water Treatment Plants.	Projects to be delivered by the end of 2006-07.	Completed.	$0.50M
Sewer Renewals/Replacement				
Security of service and asset management provisions of Statement of Obligations customer service provisions.	Reticulation sewer rehabilitation/replacement works including pipeline replacement & manhole repairs/replacement.	Approximately 1.1 km of sewer mains.	On schedule.	$0.21M
Sewer Augmentation				
Security of service and asset management provisions of Statement of Obligations customer service provisions.	Wonthaggi trunk main augmentation works of approximately 3 km.	Project to be delivered by the end of 2007-08.	Works have been deferred pending completion of further investigations.	n/a

3.8. Actual capital expenditure associated with the delivery of outcomes

South Gippsland Water committed itself to an ambitious capital expenditure program via its first Water Plan. The actual and benchmark capital expenditure approved via the ESC's June 2005 price determination is detailed in Table 3.8 below.

Table 3.8: Actual versus Benchmark Capital Expenditure

$ million in January 2007 prices

	2005/06	2006/07	2007/08	Total
Benchmark Capital Expenditure	19.7	6.3	4.5	30.6
Actual Capital Expenditure	14.3	12.3	11.5	38.1
Variance	**5.4**	**-6.0**	**-6.9**	**-7.5**

* 2005/06 & 2006/07 are actuals, while 2007/08 is budget.

As can be seen, while 27% below the benchmark 2005/06 capital expenditure, this was only timing in nature. South Gippsland Water has been able to improve its capital spend during 2006/07 and will exceed benchmark levels for 2007/08. In addition to achieving capital expenditure catch-up, the ongoing drought conditions have meant that a number of emergency capital works have been undertaken and future augmentation options brought forward.

Overall, the Corporation expects to substantially exceed the benchmark capital expenditure of $30.6 million by $7.5 million (25%) mainly as a result of the ongoing drought conditions.

The key under and over expenditures in 2005/06 and 2006/07 were:-

Capital Expenditure Works	2005/06 $M	2006/07 $M
Budgeted		
Dams Reduction Works – Lance Creek	(1.0)	1.1
Dams Reduction Works – Coalition Creek	(0.7)	(0.5)
Toora WTP – Sludge Disposal	(0.4)	
Laura Vale Pump Station	(0.4)	
Waratah Bay Sewerage Scheme	(1.0)	1.3
Venus Bay Ocean Outfall	(2.0)	0.4
Unbudgeted		
Ruby Creek System – Emergency Works Water		0.5
Coalition Creek System – Emergency Works Water		0.6
Coalition Creek System - Bypass Main		0.2
Lance Creek System – Emergency Works Water		1.6
Lance Creek System - Low Level Pumping		0.1
Tarra River - Emergency Works Water		0.2
Mines Water Investigations / Bores		0.2
TOTAL	**(5.5)**	**5.7**

Additional works required for 2007/08 over and above those specified in Water Plan I include:-

Capital Expenditure Works	$M
Lance Creek System – Emergency Works Water	0.4
Lance Creek System - Chloramination Upgrade	0.4
Mines Water Investigations / Bores	0.3
Dumbalk Raw Water Storage	0.7
Toora Water Treatment Plant – Sludge Disposal	0.7
Various Water Transfer Pipelines	0.5
Stormwater Infiltration Curtailment	0.1
Laura Vale Wastewater Pump Station	0.6
Jacobs Park Wastewater Pump Station	0.4
Watt Street Wastewater Pump Station	0.2
Biosolids Management Facility	0.3
Meeniyan Sewerage Scheme	0.6
Poowong, Loch, Nyora Sewerage Scheme	0.8
TOTAL	**6.0**

3.9. Changes in legislative obligations

In its 2005 final determination, the ESC indicated that it intended to take into account changes in legislative obligations that occurred in the first regulatory period (2005/06 to 2007/08) in determining prices for the second regulatory period. Such costs are only to be taken into account where the net impact is 2.5 per cent of a business's total revenue over the regulatory period or $1 million, whichever is higher.

In the case of South Gippsland Water, no such changes in legislative obligations have been identified.

Chapter 4

SERVICE OUTCOMES

4. Service Outcomes

4.1. Introduction

The first step in assessing proposed prices involves establishing the service standards and other related outcomes that are to be delivered over the regulatory period. Service standards and other outcomes underpin expenditure proposals for the regulatory period and thus prices.

These standards and outcomes reflect obligations imposed by the Minister for Water through the Statement of Obligations, the Environment Protection Authority (EPA), the Department of Human Services (DHS) and the Department of Sustainability and Environment (DSE). This Water Plan sets out the service standards and obligations that South Gippsland Water intends to deliver over the regulatory period.

4.2. Customer consultation

4.2.1. Overview of customer consultation

South Gippsland Water utilises a number of methods to communicate and consult with its customers. We consult with individuals, community groups, major regional industries, small businesses and their associations, schools and sporting clubs in order to ascertain their views and preferences regarding our services.

The Water Plan process provides the opportunity for further information gathering and feedback from customers, particularly on understanding their concerns and obtaining their views and support for key proposals.

South Gippsland Water conducts a range of routine customer consultation, including:

- an annual customer satisfaction survey;
- a major business customer survey, (approximately every 3 years*);
- meetings with local community and special interest groups, i.e. Lions, Rotary, Chambers of Commerce, Landcare groups, etc.;
- participation at local annual events such as environment and water related shows;
- via the South Gippsland Water website; and
- various other methods.

**In the current drought circumstances, meetings with major customers in the region are occurring on an ongoing basis.*

In addition, South Gippsland Water consults with its customers via non-routine methods, including:

- the Water Plan process;
- Water Supply Demand Strategy consultation; and
- Issue and/or project based groups.

4.2.2. Annual Customer Survey

South Gippsland Water has undertaken a regular and structured customer satisfaction survey since 1997. The survey is conducted by telephone, using an independent specialist consultant. It is designed as a stratified sample of customers across our water and wastewater supply districts.

The survey's objectives are:

- to continue to monitor customers' perceptions of, and satisfaction with, the services provided by South Gippsland Water;
- to provide the organisation with clear directions and quantitative statistical evidence to facilitate improvements in customer service based on customers' needs, expectations and their perceptions of the current service quality; and
- to identify, understand and prioritise the issues for the organisation that impact on customers.

The survey provides a structured and, independent opportunity for customers to assess the performance of South Gippsland Water, and to indicate areas of improvement.

4.2.3. Major Business Customers

Due to the current drought and its affect on major customers, security of supply has meant that considerable consultation has taken place on a one on one basis. Demand reduction measures and current and future needs have been gleaned directly rather than by surveys.

4.2.4. Meetings with local community and special interest groups

The Corporation actively encourages meetings of this type and willingly provides speakers to address special interest groups on common interest topics, e.g. Shire Councils, Lions, Rotary, various Chamber's of Commerce, local residents, landcare groups, etc.

4.2.5. South Gippsland Water Website

South Gippsland Water's website provides public access to copies of all published materials, invitations to comment, press releases, etc. There is a "contact us" section on the website for customer's and interested parties to provide comment.

4.2.6. Publications

Customer Accounts - The Customer account is the regular means for communicating with all customers. South Gippsland Water accounts provide a variety of information, including details on usage patterns and payment options. South Gippsland Water constantly seeks to improve the 'readability' of its accounts.

Pipeline - Is a general news and information newsletter, produced 3 times a year and distributed with accounts.
Information bulletins such as savewater.com are included with customer accounts on a regular basis.

4.2.7. Corporate Plan & Annual Report

These statutory reports are lodged with various government departments with over 200 copies being circulated to specific stakeholders and customers. Copies are also available on request by mail, on CD or can be downloaded from our website.

4.2.8. Water Quality Report

An annual Water Quality report is prepared for the Department of Human Services (DHS). This report along with the monthly water quality reports are made available to the public on request and are available on our website.

4.2.9. Educational Pamphlets

Cover a wide range of information about water and wastewater matters. These are circulated on request or provided at events, presentations, tours, etc. They provide a means of support for South Gippsland Water's educative role and stimulate customer thought on water/wastewater issues.

4.2.10. Customer Reference/Advisory Committees

The Corporation establishes customer/community reference and advisory groups as projects and circumstances require. The format for these groups was proposed by South Gippsland Water's original Customer Consultation Group.

In 2001, the Customer Consultation Group reviewed its own mode of operation. As a result of the review, the Committee requested that the Corporation change the customer consultation process, from a standing committee format, to issues based project groups. These would deal with specific tasks or issues impacting on a particular community or area.

For example, projects such as the Waratah Bay Sewerage Scheme, which evoked strong emotional feelings both for and against the project, involved the formation of a customer reference group from interested parties. It has provided strong two way communication through project inception to commissioning.

South Gippsland Water maintains a data base, by location, of over 230 contacts, representing community groups, business associations and individuals. The contacts provide a good cross section of the demographic profile of South Gippsland for formation of such committees.

4.2.11. Consultation for the Water Plan and Water Supply Demand Strategy

4.2.11.1 Water Plan

- As detailed in its Draft Water Plan, a specific consultation process was undertaken in relation to its development. This included consultation on the Corporation's Water Supply Demand Strategy, as an integral component of the plan. Further to this South Gippsland Water has held Draft Water Plan information sessions in order to "test drive" key assumptions gleaned from the initial Water Plan development consultations.

Three key methods were developed to obtain customer feedback both pre and post the release of the Draft Water Plan:

- customer workshops/ information sessions;
- a written customer feedback form sent to customers who were unable to attend the workshops and others with an interest in providing written feedback; and
- the ability to provide feed back through the South Gippsland Water website.

An independent specialist consultant was commissioned to design and conduct the workshops and to prepare a report detailing customers' feedback.

4.2.11.2 Customer Comment - Recruiting Approaches

Workshops and information sessions were conducted (pre and post the Draft Water Plan) in Yarram, Wonthaggi and Leongatha in order to provide an easily accessible opportunity for customers throughout the region to offer their feedback. A number of strategies were adopted to inform customers of the sessions in order to ensure representation of a wide range of customers.

These included:

- Advertisements in local papers;
- Written invitations sent to known interested customers, representatives of relevant community groups in the region such as welfare groups, environmental groups and economic development groups, and customers who in previous Annual Customer Satisfaction Surveys had expressed an interest in being involved in South Gippsland Water community consultations;
- Approximately 200 invitations sent to each workshop or information session;
- Inclusion in the Pipeline newsletter distributed to all South Gippsland Water Customers; and
- Invitations to participate via the telephone customer satisfaction survey.

To encourage customer participation and demonstrating South Gippsland Water's commitment to the consultation process:

- customers who provided feedback via the hard copy questionnaire, on-line feedback form or the sessions had the opportunity to enter a prize draw;
- during the sessions, customers were provided with morning tea or a light meal; and
- they were also offered reimbursement of travel expenses and giveaways such as water bottles, mugs, buckets and water efficient shower roses.

In the development of the plan, South Gippsland Water staff were also given the opportunity to provide feedback. The feedback from these staff workshops was separately collated by South Gippsland Water.

4.2.11.3 Workshops - Structure of sessions

Two hours were allowed for each workshop.

South Gippsland Water staff provided an overview of the proposals being considered by the Corporation. Customers were then given the opportunity to ask questions and clarify issues. The independent consultant ensured that the information was presented objectively and then led the session to gather feedback from the customers.

Table 4.2: Workshop Participation Profiles

March 2007 sessions Development of Draft Water Plan Long Term Water Supply Demand Strategy	31 paper feedback forms completed across the region	41 customers participated over 3 workshops
August 2007 sessions Draft Water Plan information & feedback sessions	44 paper feedback forms completed across the region	30 customers participated over 3 workshops

All South Gippsland Water areas were represented over the consultation process. Ages ranged from 30 - 75 and included retirees, urban and semi rural customers, commercial businesses, local press, low and fixed income earners, and financial counseling representatives.

4.3. Overview of key issues identified by customers

This section of the Water Plan provides an overview of the key issues identified by customers for the regulatory period.

4.3.1. Water Supply Demand Strategy

The main issues in the strategy were:

- Promoting water conservation and achieving an overall reduction of demand on supply systems;
- Minimising leaks from the reticulation systems to ensure water is used efficiently;
- Encouraging the use of alternate water sources;
- Making the best use of existing catchment areas;
- Augmenting supply systems if required; and
- Continuing to search for new and innovative sources of water.

Although customers were generally supportive of South Gippsland Water's Water Supply Demand Strategy and augmenting a number of urban supply systems, many thought that the strategy should be implemented sooner than planned and that more and enlarged dams were an important solution to managing increased demand.

Customers also thought it was very important for South Gippsland Water to encourage customers to conserve water and for South Gippsland Water to make use of alternative water sources. However, they were divided about interconnecting the region's water supply systems - they thought it was a costly option and not really a solution to meeting increased demand.

Although customers across South Gippsland Water's region were given ample opportunity to provide feedback about their local water supply system, the extent of feedback varied considerably, and for some locations the findings are limited.

However, in general customers were supportive of the proposed actions for their local water supply systems, although there were also some aspects that they disagreed with.

The main concerns included:

- Not sufficiently taking into account population growth;
- Insufficient investigation (or information provided) about alternative water sources (including use of stormwater and reuse of grey water, although this is beyond the scope of the Strategy); and
- Concerns about interconnecting the supplies – which might solve one town's supply problems but create problems elsewhere.

Augmentation works form a significant commitment for the Water Plan period and beyond.

4.3.2. Draft Water Plan – Planning Workshops (March 2007)

Key areas for consideration and results are summarised below:

Table 4.3(a): Key Issues for Customers – Water Plan

Initiative / Proposal	Conclusions	Summary of Key Points	Actions
Dam Safety And Enlargement	In favour.	Customers were generally supportive of the proposals associated with dam safety and enlargement with most customers providing relatively high importance ratings. Although there were some concerns about the cost of the works.	Augmentation works form a significant commitment for the Water Plan period and beyond. It was explained to customers that compliance with ANCOLD safety requirements is a regulatory compliance issues and not negotiable.
Water Testing	In principle in favour, but divided if increased independent testing resulted in a water price rise.	Most customers considered that it was very important that water quality testing was undertaken by an independent organisation. However, they were divided as to whether there should be increased independent testing if it resulted in a water price rise.	Only moderate increases in sampling and testing are proposed.
Water Pricing	In favour of a review – preference for lower service charge.	Most customers agreed that SGW should review its method of water pricing. Two options were proposed generally customers favoured the second Option presented, although they had concerns with both options. From a customer viewpoint the preferred method of pricing must ensure that that larger commercial users pay accordingly.	SGW has reviewed tariff pricing signals in line with the White Paper obligations and proposes to continue its previously stated objectives:- ▪ Uniform service charges; and ▪ Increased volumetric component. The review considered but rejected an inclining block tariff model.
Wastewater Charges	In favour of a review.	Most customers rated the current method of pricing for wastewater services as “satisfactory” (5 to 8/10). Most customers agreed that SGW should review its method of wastewater charging.	SGW has reviewed tariff pricing signals in line with White Paper obligations and proposes to maintain its one part wastewater service charge. The review considered but rejected a volumetric sewerage charge.
New Customer Contributions	In favour of a review.	Most customers rated the current method of pricing for new customer contributions as “satisfactory” . Most customers agreed that SGW should review its method of pricing for new customer contributions to make it fair by ensuring that developers pay more – or charging by the number of outlets or pipe diameter.	Following consideration of ESC and VicWater NCC options, SGW favours the VicWater model which goes some way to addressing customer concerns.
Regional Tariff Alignment	In favour, except Yarram customers.	Most customers rated the strategy to align tariffs across the South Gippsland region as “satisfactory” (5 to 8/10).	Regional tariff alignment to continue.
Guaranteed Service Levels (GSLs)	Divided as to the value or benefit of GSLs, given that the Corporation is already required to provide a certain level of service under its Customer Charter. They are not willing to pay extra for GSLs.	Customers were almost unanimous that SGW should continue to provide the required levels of service under the Customer Charter. But they were divided as to whether Guaranteed Service Levels (GSLs) were worthwhile or whether they would improve the quality of service provided by SGW. Some customers thought it would help ensure a better service was provided. Others thought it would be too costly to implement, and questioned whether it would be reasonable for SGW to guarantee its service. However, few customers were prepared to pay for GSLs.	Application of GSL’s reviewed and, at this stage, not considered appropriate for implementation.
Environmental Impact - Awareness	In favour of raising community awareness.	Customers were almost unanimously agreed that it was important to raise community awareness of SGW’s environmental obligations.	Environmental awareness to continue to be raised via various communication mediums.

4.3.3. Draft Water Plan – Information Sessions (August 2007)

Key areas of the Draft Water Plan information sessions and results are summarised below:

Table 4.3(b): Key issues for customers – Water Plan

Initiative / Proposal	Conclusions	Summary of Key Points	Actions
Service standards	Generally in favour of all proposed standards.	Most customers indicated a high level of importance for all standards (as indicated either by importance ratings and/or their written comments). Customers generally believed that the standards were satisfactory. In general customers concerns with some standards were associated with the aging infrastructure, external factors and potential impacts on meeting some standards.	Service standards proposed are consistent with comments.
Capital Expenditure Projects	Generally in favour of all capital expenditure projects reviewed.	Customers were generally supportive of all capital expenditure projects, irrespective of whether they were affected by them. Customers recognise the value of the projects in terms of security of supply , and health benefits. There were some concerns with timing of projects and environmental impacts.	Carry out capital works programn as proposed.
Tariff structure - increased volumetric component (placing less emphasis on the fixed charge and increasing the volumetric charge	Generally in favour.	Notably most customers from Southern and a number from East/West district supported this strategy, provided all customers were receiving the same level of service. Customers considered that the main benefits are that it is a method that encourages people to conserve water. The main concern for some customers was that the strategy does not go far enough to encourage customers to save water.	SGW proposes to continue its previously stated objectives:- ▪ Uniform service charges; and ▪ Increased volumetric component. Pricing reviews considered but rejected an inclining block tariff model.
Regional Tariff Alignment	Generally in favour.	Notably most customers from both Southern and a number from the East/West district supported this strategy, provided all customers were receiving the same service. Customers who are against price harmonisation belived that the service is not the same across the region and there are no added benefits to East West customers.	Regional tariff alignment to continue.
Commercial water use (maintaining a price differential for acommercial user	Mostly in favour.	Although customers were generally supportive of the strategy to maintain a price differential between commercial and other customers, some disagreed. The customers who supported the strategy generally believed that it was a fairer method, ensuring “user pays”. Customers who do not support the strategy are concerned the difference between the commercial and regional volumetric charge is not enough.	Differential volumetric tariff retained, however, continue discussions with customer during determination process.
Guaranteed service levels (GSL’s)	Customers remain divided on this issue.	Some customers believe that GSL’s would make SGW accountable and improve its performance, others were not convinced. A number of customers ware very pleased with the current standard of service and do not see the need for GSL’s. Other customers believe that it is better to put the cost of setting up and administering a GSL program into infrastructure and service improvements.	Not considered appropriate for implementation at this stage.
Hardship Strategy	Nearly all in favour.	Customers generally supported the strategy to assist “vulnerable” customers, and most believe that it is reasonable for SGW to assist these people. Several customers believed that there should be greater incentives for customers to save water, eg. Smart Homes programme and other initiatives to help reduce costs.	Investigate implementation of Smart Homes program.

4.3.4. Annual Customer Satisfaction Survey

The annual Customer Satisfaction Survey canvasses the following ten areas relating to South Gippsland Waters' perceived performance:

- Water supply
- Water quality
- Wastewater services
- The environment
- The account
- Service difficulties
- South Gippsland Water people
- South Gippsland Water management
- Infrastructure information provision
- Triple bottom line

The 2006 Customer Satisfaction Survey generally showed continued improvement across the areas surveyed. Overall 97% of customers were satisfied or very satisfied with the service provided by South Gippsland Water made up of 54% who were satisfied and 43% who were very satisfied.

4.3.4.1 Key Findings

The key strength for South Gippsland Water as in previous surveys was customer accounts (98% satisfied, of which 70% were very satisfied).

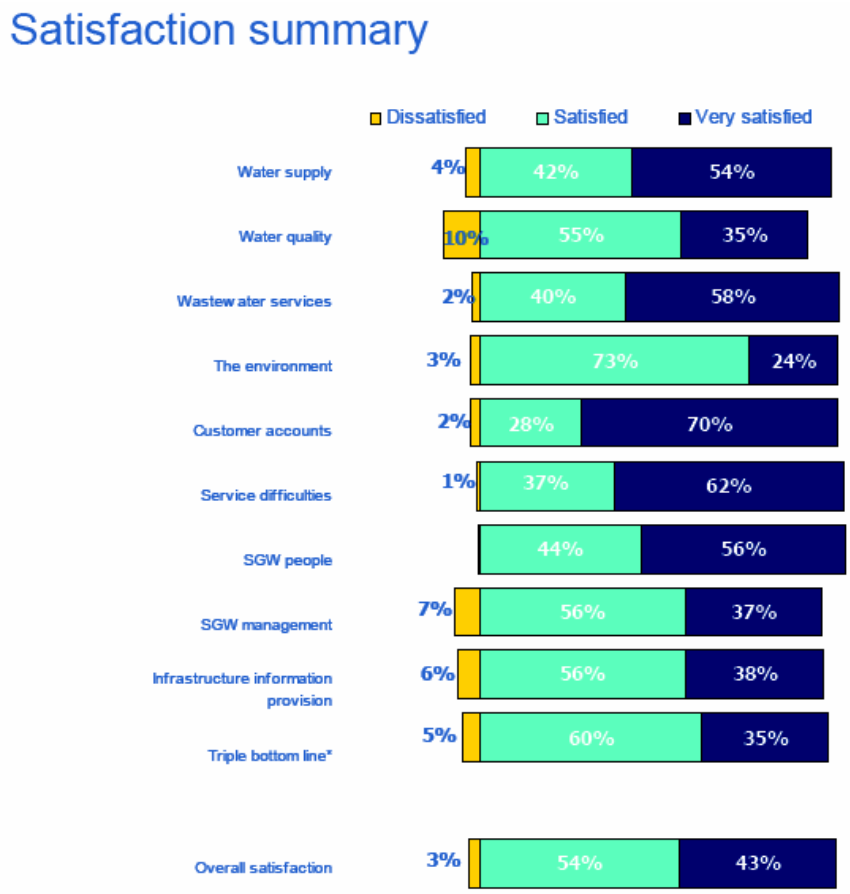
The survey revealed that water quality and environment were the main areas of low satisfaction:

- 10% of customers rated the water quality as poor and with 35% rated it as excellent.
- 24% of customers rated South Gippsland Water's management of the environment as excellent.

Key changes since 2005 were that:

- The proportion of very satisfied customers increased from 38% to 62% for the way that South Gippsland Water dealt with service difficulties.
- The proportion of very satisfied customers decreased from 69% to 37% for overall satisfaction with the information that South Gippsland Water has provided (i.e. infrastructure information).

The following summary demonstrates the relatively high customer satisfaction levels.



4.3.5. Priorities for Improvement

When the relative importance of different aspects of service was considered, the key areas for South Gippsland Water to focus on are:-

- Triple bottom line (fairness of prices/value for money).
- Water quality.
- The way South Gippsland Water was managed (egg responding to customer, community and business needs, planning and providing for the future, and the level of involvement in the community); and
- Infrastructure information provision (which was previously less important to customers and a relative strength).

Via its Annual Business Plan, South Gippsland Water is endeavoring to address the customer concerns raised in the Annual Customer Satisfaction Survey.

4.4. Regulatory and government obligations

A number of the service outcomes that South Gippsland Water will deliver over the regulatory period are driven by obligations from regulatory agencies and the government.

These environmental, water quality and other obligations or priorities are decided in consultation with regulators and the government, whilst having regard to potential customer impacts.

Guidance on these obligations has been provided by the EPA, DHS and DSE.

4.4.1. Water Act 1989

South Gippsland Water is a Corporation appointed under the *Water Act 1989*, with functions, powers and responsibilities under the Act.

Sections 163 and 173 provide the primary legislative drivers for the obligation for Gippsland Water to provide water supply and sewerage services to customers across the region. The practical arrangements to implement this are covered in the South Gippsland Water's Customer Charter.

4.4.2. Statement of Obligations

The Statement of Obligations specifies the detail of many of the outcomes which South Gippsland Water is obliged to meet in managing its business. Table 4.4(a) following confirms the key obligations. New obligations are shown in bold.

Table 4.4(a): Statement of Obligations Requirements

Clause	Obligation	Outcomes Expected	Resourcing Requirement
6	Guiding Principles	Sound governance processes	Business as usual
7 & 8	Preparation and delivery of a Water Plan.	5 year Water Plan for pricing	Business as usual
9	The Corporation must annually review and report to the Minister and the Treasurer on the performance of the Board of the Corporation.	Annual Board review	Business as usual
10.1	The Corporation must develop and implement open and transparent processes to engage its customers and the community, etc.	Engage & interact with customers	Business as usual
11	The Corporation must establish risk management systems, etc.	Manage business risks	Business as usual
12.1	The Corporation must establish incident and emergency response systems, etc.	Manage incidents / emergencies	Business as usual
13.1	The Corporation must develop and implement plans, systems and processes to manage its assets, etc.	Efficiently manage assets	Business as usual
14.1	The Corporation must develop and implement processes for the safety of, dams operated by the Corporation, etc.	Manage the safety of dams	Business as usual
15.1	The Corporation must implement sustainable water resource management programs, etc.	Secure sustainable water supplies	Business as usual
15.3	**The Corporation must participate with ……. large non-residential water users, to improve water management outcomes, etc.**	**Water Management Plans introduced for customers > 10ML p.a.**	**Extra resourcing required on an annual basis - $0.025M p.a.**
16.1	**The Corporation must develop a Water Supply Demand Strategy , etc.**	**Strategy to be delivered by March 2007, then every 5 years**	**Approx. $0.100M project every 5 years**
18.1	The Corporation must establish effective drought response plans, etc.	Manage drought conditions	Business as usual
19.3	The Corporation must implement any program of works for the provision of sewerage services identified in the sewerage management plan, etc.	Implement sewerage management plan works	$11.950M CAPEX plus $0.213M p.a. re Meeniyan, Poowong/Loch/Nyora, Dumbalk & Yankie sewerage mgt plans
21.1	The Corporation must develop policies to manage Trade Waste, etc.	Implement & maintain Sound Trade Waste systems	Business as usual
21.3	The Corporation must have systems to manage compliance with trade waste agreements, etc.		
22	The Corporation has a duty to participate in and support Regional and Local Government Planning, etc.	Liaison with local stakeholders	Business as usual
23	**The Corporation must identify, prioritise and meet its research needs.**	**To be identified**	**Implemented as a part of the CAPEX program – No extra costs**
24	**The Corporation must ……. apply the Sustainable Management Principles, etc.**	**Embed a culture of sustainability**	**Appointment of a sustainability officer to assess full details - $0.065M p.a.**
25	The Corporation must develop and implement an EMS, etc.	Manage EMS	Business as usual
26.1	The Corporation must report all Blue Green Algae blooms impacting on its water supply services and undertake its duties as Convening Agency.	Manage water quality systems	Business as usual
27.1	**The Corporation must manage the impact of its activities on any waterway, aquifer or wetland.**	**Also manage aquifers**	**New Business as Usual costs of $0.308 p.a. as not currently meeting obligations**
28.1	The Corporation must monitor the impact of its activities on waterways and wetlands, etc.	Ensure activities are environmentally sustainable	Business as usual
31	**The Corporation must participate in the Smart Water Fund. In this clause, participate does not include a requirement to make financial contributions to the Fund.**	**Actively participate**	**To be absorbed in business as usual expenditure**
32	The Corporation must monitor compliance with its obligations under the Statement of Obligations, etc.	Ensure compliance with Statement of Obligations	Business as usual
33	The Corporation must arrange for an audit of its compliance with its obligations under the Statement of Obligations, etc.	Annual ESC audit process	Business as usual

4.4.3. Water (Governance) Act 2006

The Water (Governance) Act amended many water related acts, including the Water Act 1989 and the Water Industry Act 1994. The major implications for South Gippsland Water are detailed in Table 4.4(b). All obligations are new obligations.

Table 4.4(b): Water Governance Act 2006

Clause	Obligation	Outcomes Expected	Resourcing Requirement
n/a	Introduction of 'on-the-spot' fines for infringement of Permanent Water Savings Rules, Drought Response Plans and water restriction by-laws.	Efficient enforcement of water rules, etc.	Appointment of enforcement resources - $0.020M p.a.
n/a	Requirement for the Corporation to take into account principles of sustainable management.	Embed a culture of sustainability	Appointment of a sustainability officer to assess full details - $0.065M p.a.
n/a	Establish the organisation as a statutory corporation and improve governance arrangements.	Implement new governance requirements incl. corporate identity	To be absorbed in business as usual expenditure

4.4.4. South Gippsland Water Customer Charter

During the first regulatory period, the Essential Services Commission developed a Customer Service Code that specified the responsibilities to be covered in each Corporation's Customer Charter.

South Gippsland Water's Customer Charter specifies the commitments which it has made to customers regarding the provision of its services. The Charter spells out the practical arrangements to implement the general functions specified in Sections 163 and 173 of the Water Act 1989, including:

- Service standards
- Connection and service provision;
- Complaints handling;
- Tariffs and charges;
- Accounts and payments, including hardship;
- Collection policies including actions for non-payment of your account;
- Quality and reliability of services;
- Reconnection and maintenance; and
- Provision of information.

4.4.5. Environmental obligations

In November 2006 the EPA issued an Information Bulletin *"Principles to Establish EPA Environmental Obligations for Water Businesses for the 2008-2013 Pricing Determination".* The bulletin is designed to provide clarity, at an overview level, regarding EPA Victoria's environmental requirements that water corporations are obliged to address in their Water Plan submissions.

The clarity in environmental obligations is important from two perspectives:

- so that the industry identifies the relevant obligations in their submissions and therefore ensures that funds are available to meet EPA expectations and environmental needs; and
- so that the industry has confidence in its planning horizons and that, barring unusual circumstances, EPA requirements will not significantly alter within the 5-year pricing timeframe.

The bulletin specifically focuses on environmental obligations under the *Environment Protection Act 1970* (EP Act) and associated statutory policies.

EPA Victoria's environmental obligations for the water industry are derived from the head of power provided by the EP Act. The Act enshrines key principles of environment protection, such as the waste hierarchy and intergenerational equity into Victorian decision-making processes. It also provides for statutory processes such as works approvals, waste discharge licences and statutory policies.

Statutory policies provide an additional level of detail to direct EPA and all Victorian organisations and individuals regarding the Government's environment program. With regard to the water industry and EPA obligations, the key statutory policy is State Environment Protection Policy (Waters of Victoria) [SEPP (WoV)] and its schedules. It also applies to the wider water recycling policy.

A Summary of Obligations (as provided in the Principles document) is as follows.

GENERAL

- Compliance with principles of the EP Act and SEPP (WoV).
- Comply with attainment measures as set out in SEPP (WoV) and its schedules as relevant.

SPECIFIC

- Water conservation and resource efficiency
    - Develop sustainable water plans requiring water conservation in accordance with SEPP (WoV) and White Paper requirements;
    - Integrate efficient use of resources (for example: water, energy, fertilisers, industrial chemicals, etc.) into business activities.

- Sewage management
    - Implementing the waste hierarchy for sewage management including water conservation and recycling for sustainable water management;
    - Sewage treatment and disposal:
        - upgrade treatment plants to meet minimum standards for discharge to waterways as per EPA requirements;
        - undertake recycling of reclaimed water in accordance with EPA requirements;
        - undertake biological monitoring of discharge impacts to waterways and identifying mixing zones;
        - conduct ecological risk assessment of the impact of discharges and develop a program to progressively reduce impacts on waters in consultation with waterway managers and coastal plans and EPA;
        - report impacts on beneficial uses (mixing zones) to the community via an agreed mechanism;
    - Sludge and biosolids management:
        - develop and implement plans for management and handling of continuously produced sludge;
        - develop and implement plans for 100% biosolids recycling in accordance with EPA requirements;
    - Management of the sewerage system:
        - undertake a review and develop a sewerage system management plan including an implementation program to address environmental risks of the sewerage system (including design, management, maintenance, incident response and reporting) in consultation with EPA prior to finalisation of the 2008 Water Plan;
        - undertake an EPA statutory audit in the 2008-2013 regulatory period on the adequacy of the implementation plan to identify and manage environmental risks;
    - ensure trade waste is managed in accordance with the waste hierarchy:
    - manage greenhouse gas emissions in accordance with the waste hierarchy and best practice as per SEPP (AQM) requirements;
    - manage odour from sewage treatment plants, sewerage systems and biosolids and water recycling practices in accordance with SEPP (AQM).

- Catchment, waterway and groundwater management
    - manage irrigation drainage and saline discharges to surface water and groundwaters in accordance with the waste hierarchy and as outlined in the SEPP (WoV);
    - ensure appropriate environmental flows provision and auditing in accordance with SEPP (WoV);
    - ensure appropriate waterway management with consideration of SEPP (WoV) requirements;
    - provide and manage releases from storages in accordance with SEPP (WoV); and
    - ensure appropriate groundwater management in accordance SEPP (WoV).

- Monitoring, auditing and reporting
    - monitoring and auditing of the environmental impacts of water industry functions, for example: monitoring of discharges to surface waters; and;
    - reporting of water industry activities and performance, e.g. annual reporting of sewage treatment plant licence compliance and water recycling, auditing of performance.

South Gippsland Water has developed a strategy to meet the requirements defined in the "Discussion of Obligations" section of *Principles to Establish EPA Environmental Obligations for Water Businesses for the 2008-2013 Pricing Determination.*

Key expenditures over the Water Plan period to meet a number of these environmental obligations include:

- Implementation of Small Country Town Sewerage Schemes
    - Meeniyan (2010/11) - $4.1M
    - Poowong/Loch/Nyora (2011/12) - $7.9M

- Wastewater Treatment Plant Licence Compliance
    - Baxters Beach (2009/10 to 2011/12) – ($2.3M)
    - Corner Inlet EPA Offset (2008/09 to 2010/11) - $0.6M)

  An EPA sanctioned Clause 26 SEPP (WoV) offset that sees South Gippsland Water contribute $0.6M of funding to a catchment project that will deliver net environmental benefit to Corner Inlet water quality. The $0.6M (to be paid over 3 years) is offset against a 10 year licence amendment which enables deferral of major capital and operating costs required to ensure licence compliance for the Toora and Foster outfalls. This will allow South Gippsland Water to develop possible long term options including wetland developments/ocean outfall decommissioning.

4.4.6. Water quality obligations

The primary compliance drivers for the provision of drinking water quality are the *Safe Drinking Water Act* (the Act) 2003 and the *Safe Drinking Water Regulations 2005*. The Act came into effect on 1 July 2004 and the regulations came into operation on 19 July 2005.

The act requires the water supplier to supply drinking water that satisfies defined quality standards, and water suppliers and water storage managers to continually anticipate and manage existing and emerging risks to drinking water supplies and the disclosure of relevant information to the public. These activities are to be undertaken in accordance with best practice and the risk management plan requirements and audit disclosure requirements as set out in the Act.

The primary obligation is the duty in Section 17 of the Act to ensure that all water supplied complies with quality standards. To meet this obligation, South Gippsland Water has carried out detailed reviews and developed a Water Safety Plan, which has been integrated into the operation of the systems. Ongoing reviews take place as a matter of course.

Other key requirements of the Act include:

- Section 3, which confirms application of the Act to South Gippsland Water;
- Section 17, which requires the Corporation to ensure that all drinking water complies with quality standards; and
- Section 26, which requires the Corporation to provide an annual report on issues related to water quality.

The regulations specify the detail with respect to:

- Risk management plans and annual audits;
- Drinking water standards and sampling regimes, including analysis; and
- Annual reporting details.

DHS has advised that it envisages that the Safe Drinking Water Act will remain in its current form over the regulatory period. It also advised that risk management plans would be audited at least three times during the regulatory period.

While there may be other changes via the Regulations, (including water sampling regulation), DHS has advised that there will be adequate consultation and lead times.

Under Section 30 of the Act, DHS utilises "undertakings" in order to ensure actions are taken to correct non compliance. South Gippsland Water has entered into 2 undertakings with DHS with respect to non compliance with aluminium and trihalomethanes parameters. Capital works are to be carried out during 2007/08 in the Dumbalk (raw water storage) and Lance Creek (chloramination) systems. Chloramination works at Lance Creek will result in an additional $110,000 p.a. of operating costs relating to operating effort, power and chemicals.

4.5. Validation of Obligations

Formal meetings have been held with external regulators to discuss the obligations as they apply to South Gippsland Water, for the period of the Water Plan.

- **Environmental Protection Authority Victoria (EPA):** South Gippsland Water prepared a draft response to the EPA Information Bulletin, "Strategy re Principles to Establish EPA Environmental Obligations for Water Businesses for the 2008-2013 Pricing Determination". This document details the strategy, including actions and costs in order to meet these obligations. In addition, meetings have been held with the EPA's Regional Manager and various officers. Further confirmation will be carried out by the consultation on this draft Water Plan.
- **Department of Human Services (DHS):** Meetings have been held with the Senior Project Officer, Environmental Health Unit, to cover issues related to the standards to be met in the delivery of potable water to customers and the actions needed to meet this objective and the Water Safety Plan. Further confirmation will be carried out by consultation on this draft Water Plan.

- **Department of Sustainability and Environment (DSE):** Through various officer to officer meetings, South Gippsland Water has confirmed with DSE the general obligations impacting the Corporation, eg. New Statement of Obligations requirements, etc. Further confirmation was received during the Corporate Planning process and consultation on the Draft Water Plan.

4.6. Service standards

The Essential Services Commission is responsible for regulating standards and conditions of supply for prescribed services. It is required to approve or specify the service standards that businesses propose to deliver. The following specifies the service standard targets that South Gippsland Water intends to achieve over the regulatory period.

4.6.1. Core service standards

Table 4.6 sets out the year by year core service standard targets that South Gippsland Water intends to deliver over the regulatory period. Performance is largely consistent with average performance over the previous four years for which actual data is available. That is, for the period 2003/04 to 2006/07.

Table 4.6: Core Service Standards

			FIRST REG PERIOD			SECOND REG PERIOD				
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	ACTUALS				APPROVED	FORECAST				
Water										
Unplanned water supply interruptions (per 100km)	36.5	25.3	22.7	26.3	37.0	28.0	28.0	28.0	28.0	28.0
Average time taken to attend bursts and leaks (priority 1)	n/a	19.2	13.4	13.6	30.0	30.0	30.0	30.0	30.0	30.0
Average time taken to attend bursts and leaks (priority 2)	n/a	48.8	23.3	28.7	40.0	40.0	40.0	40.0	40.0	40.0
Unplanned water supply interruptions restored within 5 hours (per cent)	97.7	99.3	98.2	98.0	99.0	99.0	99.0	99.0	99.0	99.0
Planned water supply interruptions restored within 5 hours (per cent)	100.0	17.8	100.0	98.0	99.0	99.0	99.0	99.0	99.0	99.0
Average unplanned customer minutes off water supply	62.3	29.3	26.2	29.6	36.2	36.0	36.0	36.0	36.0	36.0
Average planned customer minutes off water supply	187.2	162.4	137.5	63.5	158.8	159.0	159.0	159.0	159.0	159.0
Average unplanned frequency of water supply interruptions	0.39	0.29	0.31	0.26	0.36	0.33	0.33	0.33	0.33	0.33
Average planned frequency of water supply interruptions	0.55	0.53	0.52	0.25	0.50	0.50	0.50	0.50	0.50	0.50
Average duration of unplanned water supply interruptions (minutes)	158.8	99.3	85.5	115.9	100.0	100.0	100.0	100.0	100.0	100.0
Average duration of planned water supply interruptions (minutes)	337.6	306.5	263.2	255.4	320.0	300.0	300.0	300.0	300.0	300.0
No. of customers experiencing more than 5 unplanned water supply interruptions in the year	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unaccounted for water	11.5	10.3	14.3	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Sewerage										
Sewerage blockages (per 100km)	15.1	18.6	13.7	16.8	20.5	18.0	18.0	18.0	18.0	18.0
Average time to attend sewer spills and blockages (minutes)	n/a	28.3	24.4	24.2	30.0	30.0	30.0	30.0	30.0	30.0
Average time to rectify a sewer blockage (minutes)	111.0	205.5	109.6	113.0	120.0	120.0	120.0	120.0	120.0	120.0
Spills contained within 5 hours (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of customers receiving more than 3 sewer blockages in the year	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Customer service										
Complaints to EWOV	1.4	1.0	0.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Telephone calls answered within 30 seconds	n/a	n/a	99.0	99.0	98.0	98.0	98.0	98.0	98.0	98.0
Minimum flow rates										
20mm	20									
25mm	35									
32mm	60									
40mm	90									
50mm	160									
Additional service standards										
Average time taken to attend bursts and leaks (priority 3)	n/a	46.5	43.7	38	50.0	n/a	n/a	n/a	n/a	n/a

The rationale for setting the proposed service standards includes:

- Historical performance;
- Assessment of capital and operating expenditure expected to impact on standards; and
- Customer consultation.

4.6.1.1 Historical Performance

In terms of historical performance, the process and systems to gather and support service standard inputs have continued to mature since 2003/04. While consistent with these historical results, care has been taken in applying these with respect to projecting future targets.

However, actual service standard performance has been consistent with the current regulatory targets (refer discussion of service standard performance in Section 3 Outcomes of First Regulatory Period).

Variance of actual to target performance has been taken into account in setting future service standard targets with specific higher performance set for:

- Unplanned water supply interruptions (per 100km);
- Average unplanned frequency of water supply interruptions;
- Average duration of planned water supply interruptions (minutes); and
- Sewerage blockages (per 100km).

4.6.1.2 Capital and Operational Expenditure

Major capital expenditure for the regulatory period is generally targeted at headworks augmentations and dams safety, and new Small Country Town Sewerage Schemes. As such, no significant changes to service standards are envisaged as a result of specific capital expenditure. In addition, operating expenditure will be generally “business as usual”.

4.6.1.3 Customer Consultation

South Gippsland Water consulted with its customers via a number of regional workshops and surveys (refer Customer Consultation 4.2).

Customers were almost unanimous that South Gippsland Water should continue to provide the required levels of service under the current Customer Charter.

Via its performance reporting framework, South Gippsland Water will monitor service standards against targets with a view to identifying and assessing root causes of any outlier events. Such events will be assessed by the Senior Management Team and where possible appropriate mitigation action taken.

4.6.2. Additional service standards

It is recognised that beyond the core set of service standards, businesses are able to choose to nominate additional service standards and outputs that they intend to deliver over the regulatory period. These additional service standards are intended to reflect business specific services and local issues.

In line with the ESC's direction in its Supplementary Guidance to Water Businesses (September 2007), South Gippsland Water has proposed additional service standards for recycled water, biosolids reuse, Small Town Sewerage connections, environmental discharge compliance and drinking water quality.

However, it has identified that its current additional service standard, "Average time taken to attend bursts and leaks (priority 3)" is not considered to be adding value to customer service or business performance.

This service standard involves the Corporation attending Priority 3 bursts and leaks within 50 minutes of notification. Typically Priority 3 bursts and leaks are minor in nature and the need to physically attend within 50 minutes potentially diverts staff resource from more important jobs/tasks.

As such, South Gippsland Water proposes to discontinue this service standard. It will, however assess, where practicable, burst and leaks over the phone via its trained customer service staff. Any doubt as to the priority of a burst or leak will result in physical staff attendance on site in line with the service standards for Priority 1 and 2 bursts and leaks.

Confirmed Priority 3 burst and leaks would be attended to consistent with day to day business imperatives.

4.7. Guaranteed service levels

Guaranteed Service Level schemes (GSL's) involve businesses making payments to customers who receive a level of service that is significantly worse than the average level of performance expected by most customers. Their primary purpose is to provide an incentive for a business to improve key aspects of its services rather than to compensate affected customers.

South Gippsland Water places high importance on reporting and monitoring its service standard performance levels. The Board monitors service standard performance on a monthly basis via its Key Performance Reporting processes and places considerably emphasis on meeting its targets.

In addition, the Corporation's Enterprise Bargaining Agreement (EBA) utilises the core service standards in determining annual salary increases for staff. That is, organisational performance is monitored and pay increases are determined dependant on whether specific targets have been met. The EBA process is an effective means of reinforcing service standard performance to all levels of staff within the Corporation. It should be noted that salary increases are not withheld if the failure to achieve targets are outside employees' control.

The implementation of a GSL scheme would require significant systems/resource investments by South Gippsland Water to identify and collect information on affected customers in order to ensure appropriate payments are proactively managed.

It is believed that actual GSL payments to customers would form a relatively small portion of the overall costs of a GSL scheme. For example, during 2006/07 only 57 customers had their water interrupted for more than 5 hours (planned and unplanned). Significantly less were interrupted over 5 hours during 2005/06. At this stage, the Corporation sees that the cost of implementation of a GSL scheme outweighs the potential benefits.

Current practices and results demonstrate that appropriate efforts and attention is being applied to improve and maintain key performance targets without GSL's.

South Gippsland Water consulted with its customers via a number of regional workshops and surveys before and after the Draft Water Plan was issued (refer Customer Consultation 4.2).

Customers were divided in their views as to the values and benefits of GSLs. In particular, they:

- were not sure if they were worthwhile or whether they would improve levels of service;
- thought they would be too costly to implement and questioned whether it would be reasonable for South Gippsland Water to guarantee its services; and
- few customers were prepared to pay for their introduction via higher costs.

While GSLs have the benefit of focusing on individually poor performing services, given the relatively high costs of implementation and the ambivalence of customer support, it is considered that, at this stage, the Corporation's current reporting, monitoring and rectification processes are adequate in ensuring there is a business-wide focus on continuous service improvement.

Chapter 5

REVENUE REQUIREMENT

5. REVENUE REQUIREMENT

5.1. Overview of revenue requirement

In compliance with the ESC's framework, South Gippsland Water utilises the 'building block' approach to derive forward looking estimates of the revenue required to deliver its proposed service standards and other outcomes over the regulatory period.

Under this approach the revenue requirement reflects operating expenditure and a return on and of the regulatory asset base (RAB) updated each year to reflect any additional capital expenditure net of contributions, asset disposals and regulatory depreciation.

This section of the Water Plan provides an overview of South Gippsland Water's revenue required in order to meet its obligations and deliver services over the regulatory period. It brings together South Gippsland Water's assumptions about its expenditure requirements, demand and capital financing assumptions.

The resultant weighted average price increase to an average customer is 3.5% (real) p.a., that is, before inflation.

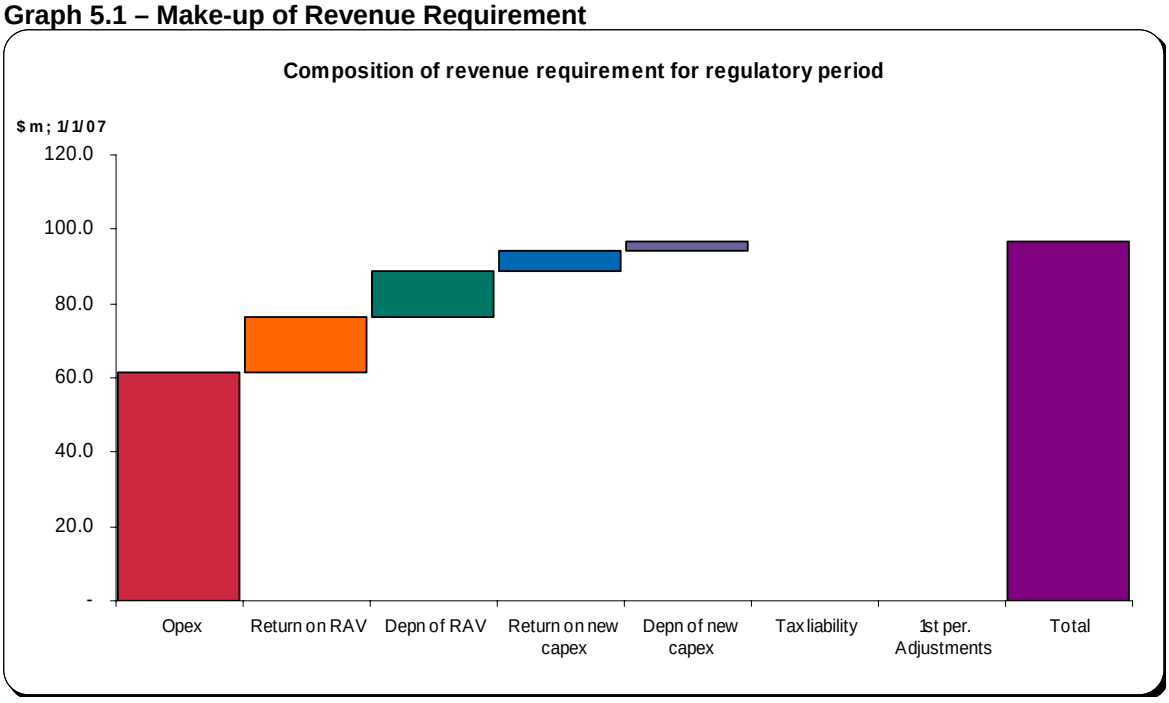
The revenue requirement of the Corporation is made up of the following elements:

- operating expenditure;
- return on assets to 30 June 2008;
- regulatory depreciation of assets to 30 June 2008;
- return on assets constructed during the period;
- regulatory depreciation of assets constructed during the period;
- adjustments from last period; and
- benchmark tax liability.

The increase in revenue required, and therefore prices, is being influenced by higher operating and capital expenditure over the regulatory period. Further information on the drivers of the higher expenditure is detailed later in this chapter.

Graph 5.1 below, illustrates the composition of South Gippsland Water's revenue requirement over the regulatory period. By far the major components are operating expenditure (63%) and return on and of the RAB to 30/6/08 (28%).

Graph 5.1 – Make-up of Revenue Requirement



Graph 5.1 also highlights the composition and relative importance of the revenue requirement. Operating expenditure is generally constant at just over $12.0M p.a., while the return of and on assets to 30/6/08 (return on assets to 30/6/08 – around $3.0M and regulatory depreciation of assets to 30/6/08 – around $2.4M) decreases over the Water Plan period as regulatory depreciation is recovered.

The total revenue requirement varies from $18.67M for 2008/09 to $19.92M in 2012/13. The increase is predominately related to returns on and of new assets.

Table 5.1: Revenue Requirement

$ million in January 2007 prices

	2008-09	2009-10	2010-11	2011-12	2012-13
Operating expenditure	12.41	12.02	12.22	12.25	12.38
Return on assets to 30/6/08	3.33	3.18	3.04	2.89	2.76
Regulatory depreciation of assets to 30/6/08	2.53	2.53	2.53	2.36	2.13
Return on new assets	0.28	0.80	1.22	1.57	1.87
Regulatory depreciation of new assets	0.11	0.32	0.50	0.65	0.78
Adjustments from last period	0.00	0.00	0.00	0.00	0.00
Benchmark tax liability	0.00	0.00	0.00	0.00	0.00
Total revenue requirement	**18.67**	**18.85**	**19.51**	**19.73**	**19.92**

It should be noted that South Gippsland Water is not pursuing adjustments from the first regulatory period and does not yet pay tax as it has brought forward tax losses.

5.2. Desalination

On the 19th June the Premier announced that the State Government would be building a $3.1 billion desalination plant in the Wonthaggi Region to provide drinking water to Melbourne by 2011.

It was also announced that the plant would provide additional water to South Gippsland and a further pipeline would be built to allow South Gippsland to access the water.

Engineering details and commercial arrangements surrounding this supply of water are as yet unknown to South Gippsland Water. However, if desalinated water is found to be a viable option for South Gippsland all future water supply augmentations as set out in the South Gippsland Water, Water Supply Demand Strategy and this Water Plan would need to be re-evaluated.

As such, South Gippsland Water has proposed triggers for a determination review in order to deal with the effects on operational and capital expenditure that the proposed desalination plant may have on South Gippsland Water (refer Section 7.4.2). This could include connection and capacity fees, significant new pipe networks, revised operating processes, etc.

5.3. Operating expenditure

Operating expenditure is the key component of the revenue requirement and is included in the year in which it is incurred.

Consistent with the approach taken in previous price reviews, South Gippsland Water has assessed its operating expenditure by establishing a baseline or 'business as usual' level of costs derived from its historical and current expenditure.

South Gippsland Water is proposing to achieve productivity improvements in the delivery of its business as usual levels of service in line with ESC guidance, that is 1% p.a. of adjusted operating expenditure (refer 5.3.5).

Costs associated with additional obligations, functions or service levels have been separated in order to facilitate assessment. These additional obligations can be imposed by the Minister, other regulators such as the EPA and DHS, or may be improvements demanded by customers. The purpose of separation is to provide transparency to the ESC, customers, Government and other regulators of the approximate cost of new obligations and hence their impact on prices.

Expenditure associated with new obligations includes any operating expenditure associated with the introduction of new obligations imposed by the government and regulators or increased service standards required by customers which take effect (or are reasonably anticipated to take effect) on 1 July 2008 or later.

5.3.1. Overview of operating expenditure

The following Table 5.3(a) outlines South Gippsland Water's forecasts of business as usual operating expenditure for each year of the regulatory period. It also details actual and forecast operating expenditure from 2004/05 to 2007/08.

Table 5.3(a): Operating Expenditure Forecast

	FIRST REG PERIOD				SECOND REG PERIOD				
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Operating Expenditure Summary									
Business as Usual	9.30	10.25	11.55	10.61	11.60	11.22	11.43	11.45	11.59
Licence fees	0.06	0.10	0.13	0.15	0.14	0.14	0.15	0.17	0.18
Environment Levy	0.42	0.55	0.53	0.56	0.56	0.55	0.53	0.52	0.51
Total prescribed BAU opex	9.79	10.89	12.21	11.31	12.30	11.91	12.11	12.14	12.27
June 2005 Final decision		*10.06*	*10.87*	*10.82*					
Total BAU operating expenditure	$m, 1/1/07								
Water									
Operations & Maintenance	1.251	1.134	2.483	1.306	1.336	1.144	1.220	1.050	1.156
Bulk charges	-	-	-	-	-	-	-	-	-
Treatment	1.715	1.705	1.765	1.683	2.044	2.054	2.076	2.075	2.086
Customer Service and billing	0.269	0.268	0.251	0.248	0.251	0.254	0.257	0.260	0.263
GSL Payments	-	-	-	-	-	-	-	-	-
Licence Fees	-	-	-	-	-	-	-	-	-
Corporate	1.806	2.110	2.124	2.185	2.246	2.266	2.265	2.324	2.308
Other operating expenditure	1.051	1.043	0.976	0.966	0.980	0.991	1.002	1.012	1.023
Total Water	6.092	6.260	7.599	6.388	6.857	6.709	6.820	6.721	6.836
Sewerage									
Operations & Maintenance	0.442	0.515	0.599	0.638	0.970	0.843	0.864	0.602	0.602
Bulk charges	-	-	-	-	-	-	-	-	-
Treatment	0.372	0.433	0.460	0.562	0.683	0.546	0.616	0.928	0.956
Customer Service and billing	0.143	0.166	0.155	0.153	0.155	0.158	0.159	0.161	0.163
GSL Payments	-	-	-	-	-	-	-	-	-
Licence Fees	-	-	-	-	-	-	-	-	-
Corporate	1.344	1.810	1.742	1.882	1.939	1.956	1.952	2.008	1.987
Other operating expenditure	0.911	1.061	0.992	0.983	0.996	1.007	1.019	1.029	1.041
Total Sewerage	3.212	3.985	3.948	4.218	4.743	4.510	4.610	4.728	4.749
Licence fees									
Essential Services Commission	-	0.033	0.016	0.021	0.014	0.014	0.014	0.013	0.019
Department of Human Services	0.007	0.007	0.007	0.008	0.008	0.007	0.007	0.007	0.008
Environment Protection Authority	0.056	0.056	0.107	0.122	0.122	0.122	0.129	0.152	0.152
Total Licence fees	0.063	0.096	0.130	0.151	0.144	0.143	0.150	0.172	0.179
Environment Levy	0.422	0.546	0.530	0.555	0.560	0.546	0.532	0.519	0.506

5.3.2. Key drivers of operating expenditure

Table 5.3(b) identifies the key drivers for increased Business as Usual operating expenditure for the Water Plan. Significant costs are linked to changes in operations to meet existing or improved service levels, i.e.:

- Small Country Town Sewerage Schemes/Waste Management Schemes at Meeniyan, Poowong/Loch/Nyora, Dumbalk and Yanakie;
- Chloramination at Lance Creek in order to meet water quality standards;
- Ensuring provision of water to customers in ongoing drought conditions;
- improved river health monitoring in line with current requirements;
- The Corner Inlet EPA offset program;
- implementing asset management systems into the core business functions; and
- Forecast significant increases in electricity costs.

Table 5.3(b): Key Drivers of Increased Business as Usual Operating Expenditure

Key Driver	Details	Expenditure Type
Water Act 1989 Statement of Obligations - Drought Management Planning	Ensuring provision of water to customers in drought situation – fuel, electricity, resourcing - $0.150M p.a.	Water Operation and Maintenance
Safe Drinking Water Act 2003 Safe Drinking Water Regulations 2005 Water Quality Complaints	Higher water sampling and analysis costs in response to water quality risks - $0.030M p.a. Sponsored EPA employee to inspect South Gippsland Water catchments in order to manage risks in raw water supplies- $0.045M p.a. Opex costs of implementation of chloramination in Lance Creek system in response to THM non-compliances - $0.110M p.a. Water Quality Risk Management Audits $0.020M p.a.	Water Operation and Maintenance Corporate Water Operation and Maintenance Corporate
EPA Licence Compliance	De-sludging lagoons - $0.500M over the Water Plan period.	Wastewater Operation and Maintenance
EPA Regulatory Obligations	Corner Inlet Offset program - $0.600M over the Water Plan period. Small Country Towns Sewerage Schemes /Management - $0.200M opex p.a. Various other EPA Environmental obligations - $0.500M over the Water Plan period.	Corporate Wastewater Operation and Maintenance Corporate
Statement of Obligations - River Health	Outfall & river health monitoring stepped up in order to meet current obligations - $0.430M p.a. ($0.190M extra).	Corporate
Statement of Obligations - Asset Management	Implementation of systems for efficient management of assets to minimise the whole of life costs of asset service delivery - $0.320M p.a.	Corporate
Demand Reduction Strategies Customer communications	Water savings education, community programs, surveys - $0.030M p.a.	Corporate

5.3.3. New Obligations

In addition to business as usual costs, new obligations with respect to the revised Statement of Obligations and Water (Governance) Act 2006 have been identified.

Table 5.3(c): Summary of New Obligations and Operating Expenditure

Key Driver	Obligation	Outcomes Expected	Resourcing Requirement
Statement of Obligations	The Corporation must participate with large non-residential water users, to improve water management outcomes, etc.	Water Management Plans introduced for customers > 10ML p.a.	Extra resourcing required on an annual basis - $0.025M p.a.
Statement of Obligations	The Corporation must develop a Water Supply Demand Strategy, etc.	Strategy to be delivered by March 2007, then every 5 years	Approx. $0.100M project every 5 years
Statement of Obligations	The Corporation must identify, prioritise and meet its research needs.	To be identified	Implemented as a part of the CAPEX program – No extra costs
Statement of Obligations	The Corporation must apply the Sustainable Management Principles, etc.	Embed a culture of sustainability	Appointment of a sustainability officer to assess full details - $0.065M p.a.
Statement of Obligations	The Corporation must manage the impact of its activities on any waterway, aquifer or wetland.	Also manage aquifers	New Business as Usual costs of $0.308 p.a. as not currently meeting obligations
Statement of Obligations	The Corporation must participate in the Smart Water Fund. In this clause, participate does not include a requirement to make financial contributions to the Fund.	Actively participate	To be absorbed in business as usual expenditure
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.	Efficient enforcement of water rules, etc.	Appointment of enforcement resources - $0.020M
Water (Governance) Act 2006	Requirement for the Corporation to take into account principles of sustainable management.	Embed a culture of sustainability	Appointment of a sustainability officer to assess full details. Refer above costs.
Water (Governance) Act 2006	Establish the organisation as a statutory corporation and improve governance arrangements.	Implement new governance requirements incl. corporate identity	To be absorbed in business as usual expenditure

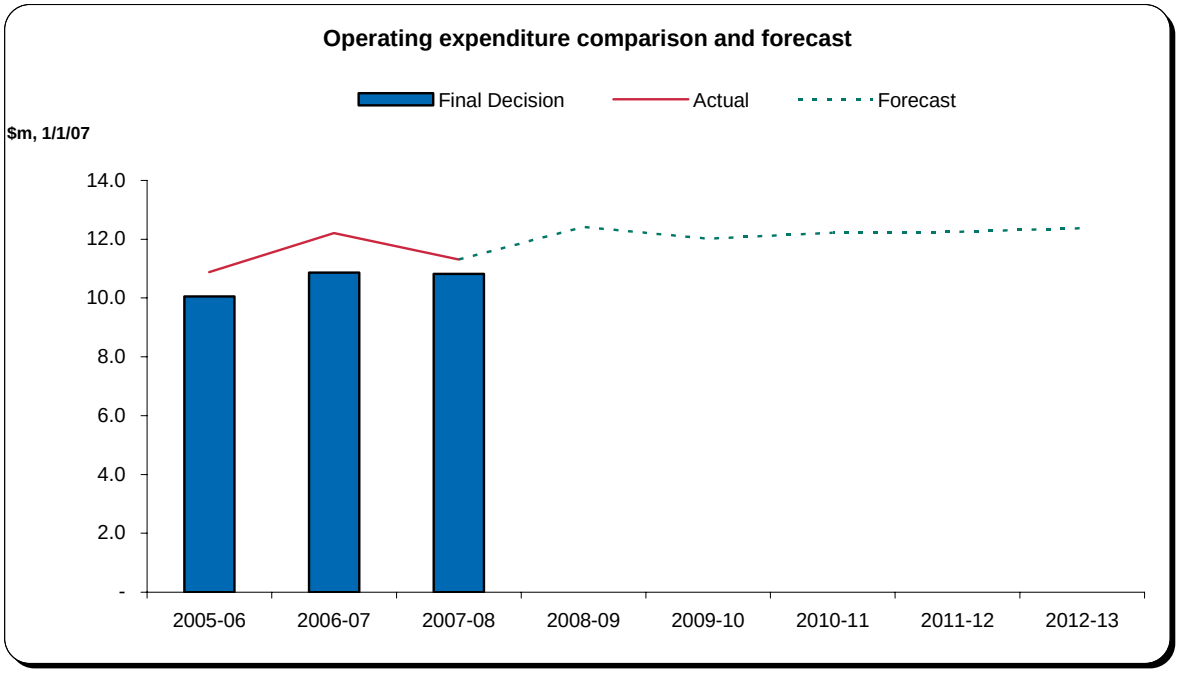
5.3.4. Justification of forecast expenditure levels

The following graph shows the increasing costs of running South Gippsland Water in the current regulatory environment. Total operating costs are forecast to increase from $11.3M in 2007/08 ($12.2M in 2006/07 due to drought response works) to an average of $12.2M p.a. over the 5 years of this Water Plan.

As illustrated above, a number of factors have contributed to these higher costs, including new regulatory obligations and resources required to meet existing standards and expectations (drinking water quality, EPA licence compliance, Statement of Obligations requirements (mostly related to river health monitoring), etc.

Productivity improvements have been factored into the forecast expenditures refer 5.3.5 following).

Graph 5.3: Growth in Operating Expenditure – Historical and Forecast



The additional costs have been discussed with government and regulators and communicated to customers via the draft Water Plan consultation process.

5.3.5. Productivity improvements over the period

The WIRO requires the ESC to be satisfied that South Gippsland Water's proposed prices provide for a sustainable revenue stream that does not reflect monopoly rents or inefficient expenditure. The ESC must also be satisfied that the proposed prices will provide continuing incentives to pursue efficiency improvements. In this respect, the ESC has mandated efficiency improvements on business as usual expenditure over the Water Plan period.

Table 5.2(d) quantifies the productivity improvements to be delivered over the regulatory period.

A 1% efficiency target on business as usual expenditure has been set, allowing for licence fees, the environmental contribution, insurances and electricity. Licence fees and the environmental contribution have been excluded on the basis that they represent uncontrollable costs mandated by regulators and government. Insurance costs have been excluded on the basis that South Gippsland Water will not entertain lower business risk cover in order to deliver productivity.

South Gippsland Water is also of the view that electricity costs are outside its influence in terms of cost control. That is, the same regulatory framework that regulates water tariffs operates in the electricity markets to deliver "at least" CPI increases. In addition, we are increasingly operating in an environment where corporations are delivering water via fuel based cost structures.

These targets have been factored into the Water Plan's business as usual expenditure, i.e. power, diesel, etc.

Table 5.3(d): Productivity Improvements

1. Original Water Plan Estimates (Summary Paper)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Business As Usual	11.312	12.304	11.908	12.112	12.140	12.270
New Obligations	0.000	0.110	0.110	0.110	0.110	0.110
	11.312	12.414	12.018	12.222	12.250	12.380
2. Licence Fees & Environmental Contribution						
ESC Licence Fee	0.021	0.014	0.014	0.014	0.013	0.019
EPA Licence Fee	0.122	0.122	0.122	0.129	0.152	0.152
DHS Licence Fee	0.008	0.008	0.007	0.007	0.007	0.008
Environmental Contribution	0.555	0.560	0.546	0.532	0.519	0.506
	0.706	0.704	0.689	0.682	0.691	0.685
3.Other Expenditure excluded from Productivity Improvement						
Insurances	0.199	0.199	0.199	0.199	0.199	0.199
Electricity	0.602	0.722	0.722	0.722	0.722	0.722
Increased Business as Usual Costs relating to River Health Initiatives	0.000	0.238	0.238	0.238	0.238	0.238
	0.801	1.159	1.159	1.159	1.159	1.159
4. Adjusted Expenditure before Productivity Improvement						
Business As Usual	9.805	10.441	10.060	10.271	10.290	10.426
New Obligations	0.000	0.110	0.110	0.110	0.110	0.110
	9.805	10.551	10.170	10.381	10.400	10.536

5. Annual Change in Operating Expenditure (per cent per annum)	1.27%
6. Customer Growth (per cent per annum)	1.40%
7. Implied Productivity Improvement (per cent per annum)	0.13%
8. Commission Productivity Improvement Requirement (% p.a.)	1.00%
9. Remaining Commission Productivity Improvement Requirement (% p.a.)	0.87%

10. Required Productivity Improvement Adjustment						
Business As Usual	0.090	0.178	0.267	0.356	0.446	

5.4. Capital expenditure

Capital expenditure is another key component of the revenue requirement. Net capital expenditure is recovered by being added to the regulatory asset base (RAB) and is reflected in prices through a return on the RAB (that is the Weighted Average Cost of Capital (WACC) multiplied by the RAB) and a return of the RAB (through regulatory depreciation).

The WIRO requires that expenditure forecasts reflected in Water Plans are efficient and that the forecasts take into account a planning horizon that extends beyond the regulatory period.

This Water Plan aims to clearly outline South Gippsland Water's forecasts of capital expenditure for each year of the regulatory period, the key drivers of expenditure and information to show that the expected levels of expenditure are prudent and efficient.

The Water Plan clearly distinguishes between capital expenditure related to business as usual activities and new obligations.

5.4.1. Overview of capital expenditure

Table 5.4(a) Capital Expenditure forecast by Asset Category, details historical and forecast capital expenditure. 2004/05 to 2006/07 demonstrates South Gippsland Water's history of delivery of capital expenditure well in excess of $10M p.a. South Gippsland Water's historical capital expenditure has comprised a mix of water and sewerage projects, i.e. wastewater plant upgrades, trade waste systems, dams upgrades, and water supply augmentations.

By comparison, the capital expenditure forecast for the regulatory period is relatively modest, however, at $47.9M it still substantially exceeds our net cash from operations, meaning that South Gippsland Water will continue to draw down considerable amounts of debt in order to finance works.

Table 5.4(a): Capital Expenditure forecast by Asset Category

		FIRST REG PERIOD			SECOND REG PERIOD				
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Capital Expenditure Summary	$m, 1/1/07								
Water	3.66	14.28	8.17	5.43	5.05	1.93	4.41	6.34	5.35
Sewerage	11.13	-	4.16	6.03	7.02	8.31	5.45	2.21	1.83
Bulk water	-	-	-	-	-	-	-	-	-
Recycled water	-	-	-	-	-	-	-	-	-
Rural water	-	-	-	-	-	-	-	-	-
Total prescribed BAU capex	**14.79**	**14.28**	**12.33**	**11.46**	**12.07**	**10.24**	**9.86**	**8.55**	**7.18**
June 2005 Final Decision	*19.22*	*19.72*	*6.30*	*4.55*					
Government contributions	0.32	0.39	1.40	0.82	1.41	-	-	-	-
Customer contributions	1.02	0.60	0.61	0.57	0.64	0.81	1.06	0.67	0.64
Gifted Assets	1.67	1.71	1.50	1.40	1.40	1.40	1.40	1.40	1.40
Proceeds from disposals	0.60	0.31	0.37	0.46	0.35	0.35	0.42	0.34	0.34

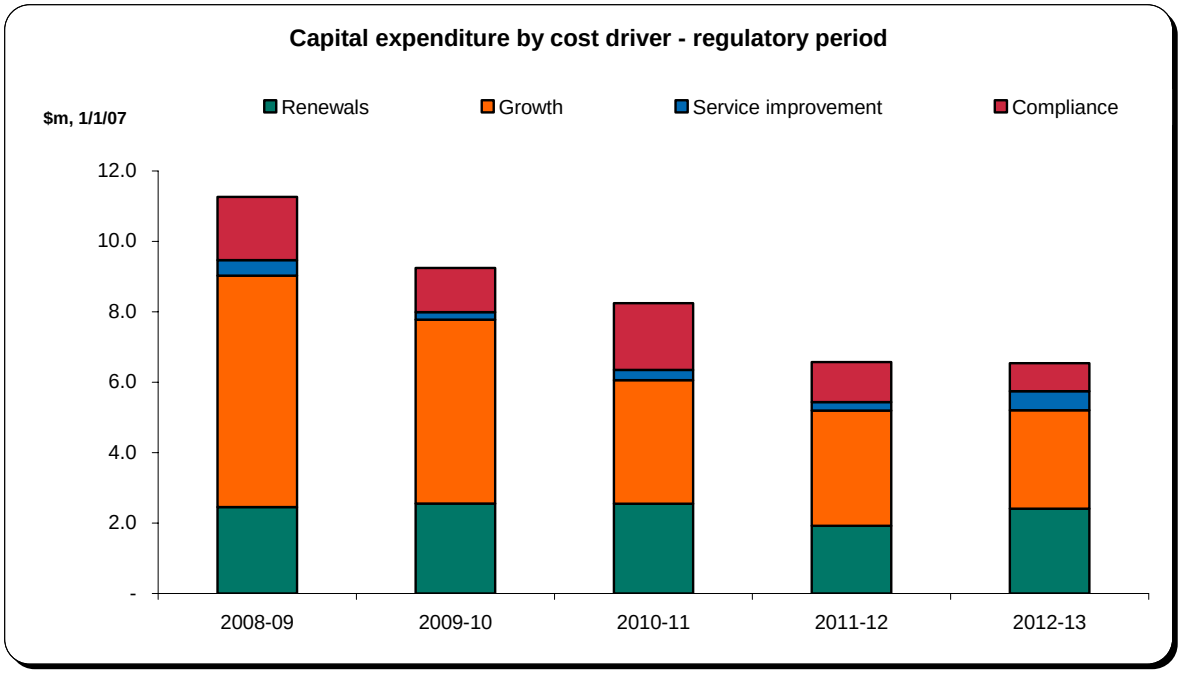
Table 5.4(b) and Graph 5.4 below demonstrate the key cost drivers of forecast capital expenditure.

It is predominately driven by growth (Small Country Town Sewerage Schemes and headworks augmentations), while compliance (dams safety rectification works) and renewals (water/wastewater mains rehabilitation and water and wastewater plan renewals) comprise the bulk of the remainder.

Table 5.4(b): Capital Expenditure forecast by Cost Driver – from 1/7/08

	SECOND REG PERIOD				
	2008-09	2009-10	2010-11	2011-12	2012-13
Capital Expenditure Summary $m, 1/1/07					
Net capital expenditure - renewals	2.45	2.55	2.55	1.92	2.41
Net capital expenditure - growth	6.58	5.22	3.52	3.28	2.80
Net capital expenditure - improved service	0.45	0.22	0.28	0.24	0.53
Net capital expenditure - compliance	1.79	1.25	1.90	1.14	0.80
Government contributions	0.16	0.19	0.55	1.31	-
Customer contributions	0.64	0.81	1.06	0.67	0.64
Total prescribed BAU capex	**12.06**	**10.24**	**9.86**	**8.55**	**7.18**

Graph 5.4: Capital Expenditure forecast by Cost Driver – from 1/7/08



5.4.2. Key drivers of capital expenditure

Table 5.4(c) details the top ten (by cost) projects/programs to be delivered over the regulatory period, including:

- the drivers of each project/program;
- the outcomes that will be delivered by each project;
- the expected delivery date for the project/program; and
- the cost of the project/program for each year of the period.

Table 5.4(c): Major Projects Identified in Water Plan 2 - 5 Year Capital Expenditure 2008/09 to 2012/13

Reason	Project Driver	Project Description	Outputs to be achieved within regulatory period	Delivery Date	Capital Cost
Poowong/Loch/Nyora Sewerage Scheme					
SGW's region has a number of small towns without adequate wastewater management facilities. Unsuitable soil types and smaller size allotments mean that current septic systems are unable to retain effluent on these individual allotments. In many locations, grey water finds its way directly to the street drainage system with resultant health, environment and amenity issues.	Nominated by the Minister for Water in the Country Towns Sewerage Scheme. Clause 19 - Statement of Obligations.	Domestic wastewater will be delivered via a trunk main from the reticulation network within each town to a centrally located wastewater treatment plant. A new treatment facility that will have sufficient capacity to ensure compliance with relevant discharge licence limits and a capability to accommodate growing population levels.	Detail design to commence in 2007/08. Construction to commence in 2008/09. Construction of reticulated sewerage system for each town, trunk sewer main and common wastewater treatment plant sewer facility.	Construction works scheduled for completion in 2010/11.	7.90M
Tarra River Construction of Off Stream Storage					
A new 200 ML storage reservoir is required to prevent ongoing and regular water restrictions and to provide for growth and development within the Yarram area.	To provide security of supply to the customers of the Yarram water system. Confirmed in customer consultation.	Acquisition of private land site near Tarra River off take, community consultation, construction of embankment wall, provision of power supply, vehicle access track, pump station and transfer delivery pipeline to Water Treatment Plant.	Detail design to commence in 2007/08. Construction to commence in 2010/11. Construction of 200 ML off stream raw water storage for supply demand purposes.	Construction works scheduled for completion in 2011/12.	6.45M
Meeniyan Sewerage Scheme					
SGW's region has a number of small towns without adequate wastewater management facilities. Unsuitable soil types and smaller size allotments mean that current septic systems are unable to retain effluent on these individual allotments. In many locations, grey water finds its way directly to the street drainage system with resultant health, environment and amenity issues.	Nominated by the Minister for Water in the Country Towns Sewerage Scheme. Clause 19 - Statement of Obligations.	Domestic wastewater will be delivered via a trunk main from the reticulation network within each town to a centrally located wastewater treatment plant. A new treatment facility that will have sufficient capacity to ensure compliance with relevant discharge licence limits and a capability to accommodate growing population levels.	Detail design to commence in 2007/08. Construction to commence in 2008/09. Construction of reticulated sewerage system and wastewater treatment plant facility.	Construction works scheduled for completion in 2009/10.	4.05M
Vehicle Replacement					
South Gippsland Water's vehicle fleet must be kept current with replacement carried out on a optimised policy position.	Security of service and asset management provisions of Statement of Obligations. Customer service provisions and operational issues of Customer Charter.	Replacement of the SGW vehicle fleet in line with v vehicle replacement policy.	Replacement of the SGW vehicle fleet in line with vehicle replacement policy.	Ongoing program over the Water Plan period.	3.70M
Battery Creek Dams Risk (Rehab-Augmentation)					
The dam embankment wall at Battery Creek reservoir requires upgrading to meet current and future development supply demands and comply with current design standards and ANCOLD guidelines for dam safety.	Dam safety and risk reduction in accordance with ANCOLD guidelines and Statement of Obligations.	Rehabilitate embankment to achieve required dam safety design standards. Raising the embankment and spillway to provide an additional storage capacity of 150 ML.	Detail design to commence in 2011/12. Construction to commence in 2012/13. Upgrade of dam embankment wall at Battery Creek reservoir for dam safety and augmented storage.	Construction/augmentation scheduled for completion in 2012/13.	3.50M
Coalition Creek Dams Risk (Rehab-Augmentation)					
When the water level within the Coalition Creek reservoir reaches a certain level, well below full supply level, the embankment is observed to leak at several locations. The embankment requires upgrading to comply with current design standards and ANCOLD guidelines for dam safety. The upgrade will assist in meeting current and future development supply demands.	Dam safety and risk reduction in accordance with ANCOLD guidelines and Statement of Obligations.	Reconstruction of leaking embankment crest and raising of embankment wall to achieve an additional storage capacity of 100 ML.	Detail design to commence in 2007/08. Construction to commence in 2008/09. Upgrade of dam embankment wall at Coalition Creek reservoir for dam safety and storage augmentation.	Construction/augmentation scheduled for completion in 2008/09.	3.30M
Water Renewals/Replacement					
To rehabilitate/replace inefficient water mains.	Security of service and asset management provisions of Statement of Obligations. Customer service provisions and operational issues of Customer Charter. Risk management works under Safe Drinking Water Act 2003.	Water main replacement program based on agreed established priorities with Operations. Works include the progressive replacement of asbestos cement (AC) pipes installed up to the 1970s.	Ongoing replacement of troublesome watermains within SGW's region. Approximately 12 km of water mains over the Water Plan period.	Ongoing program over the Water Plan period.	2.48M

Reason	Project Driver	Project Description	Outputs to be achieved within regulatory period	Delivered	Capital Cost
Wonthaggi Wastewater Strategy Works					
The Wonthaggi WWTP requires upgrading to provide additional treatment capacity for effluent to meet Class C irrigation quality standard and control development of odour.	Driven by the need to meet licence compliance obligation of the EPA Act.	Improvement to treatment process to achieve required standards. Development of effluent standards to achieve a viable wastewater reuse system within a balanced water resource cycle.	Works include construction of winter storage lagoons for reuse, desludging of existing lagoons and purchase of nearby land for reuse irrigation/wet lands.	Desludging of lagoons scheduled for completion in 2010/11. Purchase of nearby land for reuse irrigation scheduled to be effected in 2010/11. Construction of winter storage lagoons scheduled for completion in 2011/12 .	2.33M
Agnes River Augmentation - Construction of Off Stream Storage					
The existing Agnes River water supply system, due to significant river flow fluctuations, does not provide for the current level of service requirements. A new 50 ML storage reservoir is required to prevent ongoing and regular water restrictions and to provide for growth and development within the Toora/Welshpool area.	The existing Agnes River water supply system due to significant river flow fluctuations which does not provide for required current level of service requirements. A new 50 ML storage reservoir is required to prevent ongoing and regular water restrictions and to provide for growth and development within the Toora/Welshpool area.	Construction of new off stream storage, transfer pipelines and pump station.	Detail design to commence in 2010/11. Construction to commence in 2011/12. Construction of 50 ML off stream storage to ensure adequate supply for current and growth demand.	Construction works scheduled for completion in 2011/12.	2.20M
Reticulation Sewer Replacement/Rehabilitation					
To rehabilitate/replace inefficient water mains.	Security of service and asset management provisions of Statement of Obligations. Customer service provisions and operational issues of Customer Charter.	Reticulation sewer rehabilitation/replacement works including pipeline replacement/relining & manhole repairs/replacement on an agreed established priorities with Operations.	Ongoing rehabilitation/replacement of ageing, cracked and broken reticulation sewer pipelines and manholes. Approximately 3 km of sewer pipelines and manholes over the Water Plan period.	Ongoing program over the Water Plan period.	1.50M

5.4.3. Prudent and efficient capital expenditure levels

Capital expenditure proposals based on effective and efficient delivery are targeted to accommodate the key factors underpinning an ageing infrastructure, escalating regional growth, maintaining regulatory compliance outcomes and sustainable provision of services.

The Water Supply Demand Strategy has involved intensive study, investigation and liaison with Government (DSE) and other regulatory authorities.

The extensive and encompassing report prepared by specialist consultants supports the demand strategy needed to be adopted in order to provide for regional water supply demand growth.

Off stream water storage requirements to provide for supply demand growth have been assessed and evaluated with preferred options detailed in consultants' analysis reports.

Ageing dam structures in Battery Creek and Coalition Creek that do not comply with current regulatory and design safety standards require rehabilitation to satisfy current standards and upgraded to provide improved supply storage. Various specialist dam consultants' reports, including extensive geotechnical investigations define the design upgrade and identify storage augmentation assessments.

Rapidly developing rural regional townships in Meeniyan, Loch/Nyora/Poowong require the underlying support wastewater infrastructure system to cater for expanding development. Detailed consultants reports have addressed the verdant land requirements and concept design reports identify latest technological treatment approach for nominated township schemes.

Ageing service delivery infrastructure reaching the end of its design and economical service life requires rehabilitation or replacement on a manageable priority assessed economic evaluation basis, with a shared regional approach.

The currently rapidly developing township of Wonthaggi is placing greater demands on existing wastewater facilities requiring improvements to treatment processes, both for current flows and predicted future flows. Consultants' reports have addressed long term wastewater strategy development and detailed treatment improvements and upgrades to facilities.

Table 5.4(d) details the major sources for ensuring that proposed capital expenditure is both prudent and efficient

Table 5.4(d): Prudent and Efficient Capital Expenditure Levels – Major Projects Identified in Water Plan 2

PRUDENT AND EFFICIENT CAPITAL EXPENDITURE LEVELS - MAJOR PROJECTS IDENTIFIED IN WATER PLAN 2			
Project	**Report Title**	**Consultant**	**Month/Year**
Poowong/Loch/Nyora Sewerage Scheme	Strategic Land Requirements for Wastewater Treatment for Loch/Nyora/Poowong and Meeniyan	GHD	Feb-06
	Concept Design Report	GHD	Nov-06
Tarra River Construction of Off	Functional Design Report Tarra Valley Offstream Storage	URS	May-07
Meeniyan Sewerage Scheme	Strategic Land Requirements for Wastewater Treatment for Loch/Nyora/Poowong and Meeniyan	GHD	Feb-06
	Concept Design Report	GHD	Nov-06
Vehicle Replacement	Program relates to vehicle turnover based on market economics	Not Required	Ongoing
Battery Creek Dams Risk (Rehab-Augmentation)	Battery Creek - Preliminary Design of Rehabilitation Upgrade & Feasibility Assessment of Raising of Embankment Wall (Storage Augmentation)	SMEC	Mar-07
Coalition Creek Dams Risk (Rehab-Augmentation)	Detailed Investigation for 5 Dams - Lance Creek, Bellview Creek, Ness Gully, Coalition Creek & Toora Basin	URS	Jan-03
	Coalition Creek (Korumburra No. 1) - Preliminary Design, Raising and Risk Reduction (Tender Assessment in	Specialist Dam Consultant	Jun-07
Water Renewals/Replacement	Program based on agreed established priorities with Operations	Not Required	Ongoing
Wonthaggi Wastewater Strategy Works	SGW Long Term Wastewater Strategy Plans - Wonthaggi, Cape Paterson, Inverloch, Foster, Toora, Welshpool	KBR	Jun-04
	Wonthaggi Wastewater Treatment Plant - Aeration Upgrade and Flow Path Modifications to Lagoon 1	KBR	Jan-07
Agnes River Augmentation-Construction (Off Stream Storage)	Agnes River Offstream Storage - Preliminary Comparison of Storage Options for Sites 3 and 3A report)	URS	Feb-07
Reticulation Sewer Replacement/Rehabilitation	Program based on agreed established priorities with Operations	Not Required	Ongoing
Long Term Water Planning Strategy (All water supply systems)	Water Supply Demand Strategy - Submission to Government	SKM	Jun-07

5.5. Financing capital investments

Under the provisions of the WIRO, South Gippsland Water can recover the cost of financing existing and new investments through:

- earning a return on the value of the RAB (i.e. the weighted average cost of capital multiplied by the RAB); plus
- a return of the value of the RAB (i.e. regulatory depreciation).

5.5.1. Updating the regulatory asset base

The value of the initial RAB (at 1 July 2004) was set by the Minister for Water. The initial asset value for South Gippsland Water was set at $26.0 million (at 1 January 2004 prices). This now reflects $28.0 million at 1 January 2007 prices.

Prices for the first regulatory period were based on this initial value adjusted annually in the following manner:

- Opening RAB
- *Plus* forecast gross capital expenditure
- *Less forecast customer and government and contributions*
- *Less forecast proceeds from disposal of assets*
- *Less regulatory depreciation*
- *Equals closing RAB*

The value of the RAB at the start of the second regulatory period (1 July 2008) has been calculated based on actual outcomes for 2004/05, 2005/06 and 2006/07 and utilising forecasts for 2007/08.

The ESC's guidance on the preparation of Water Plans advised that for years where actual data was not available, the Water Plans should show the capital expenditure, contributions and proceeds value assumed in the initial pricing determinations. It also advised that for all years the value of regulatory depreciation shown should be that contained in the initial pricing determinations.

South Gippsland Water considers its revenue requirement for the second regulatory period would be seriously compromised by this guidance as its forecast capital expenditure for 2007/08 is nearly $7.0M over the benchmark amount set in the first regulatory period (refer Section 3.8). However, the Corporation is prepared to assess its progress in delivering capital outcomes throughout the price determination process and revise estimates accordingly.

5.5.2. Rolling forward the RAB

South Gippsland Water has forecast the value of the RAB for each year of the second regulatory period. The forecast RAB reflects the estimate of capital expenditure (as discussed in Section 5.3.1) as well as forecasts of capital contributions, disposals and regulatory depreciation.

The following sets out South Gippsland Water's forecast rolled forward regulatory asset base.

Table 5.5(a): Rolled Forward Regulatory Asset Base

	FIRST REG PERIOD				SECOND REG PERIOD				
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Rolled forward asset base									
Opening asset base	27.95	39.56	50.93	59.03	66.75	73.78	80.01	85.36	89.90
plus Gross capex	14.79	14.28	12.33	11.46	12.07	10.24	9.86	8.55	7.18
less Government contributions	0.32	0.39	1.40	0.82	1.41	-	-	-	-
less Customer contributions	1.02	0.60	0.61	0.57	0.64	0.81	1.06	0.67	0.64
less Proceeds from disposals	0.60	0.31	0.37	0.46	0.35	0.35	0.42	0.34	0.34
less Regulatory depreciation	1.24	1.61	1.85	1.90	2.64	2.85	3.03	3.01	2.91
Closing asset base	**39.56**	**50.93**	**59.03**	**66.75**	**73.78**	**80.01**	**85.36**	**89.90**	**93.19**

Government contributions reflect estimated grant receipts with respect to the Small Country Town Sewerage Schemes for Poowong/Loch and Nyora. The contributions have been made available under the Country Town Water Supply and Sewerage Program. The quantum and timing of receipts is as advised by DSE.

Water businesses have the ability to require new and existing customers to make an upfront contribution to the costs of connecting to the existing water and sewerage networks, also known as New Customer Contributions (NCC's) or headworks and outfall charges. South Gippsland Water has adopted the industry position with respect to NCC's as put forward by the Victorian Water Industry Association in May 2007 which sees an approximate doubling in revenues from this source from the commencement of the second regulatory period.

Proceeds from asset disposals are predominately related to South Gippsland Water's motor vehicle fleet. The current changeover policy is set at 80,000 km's or 3 years. A lower proceeds figure for the second regulatory period has been forecast based on the longer retention policy and a continued softening of the second hand motor vehicle market.

Regulatory depreciation has been calculated consistent with the approach adopted in the first regulatory period, that is fixed assets have been depreciated using a straight line approach across the economic life of the assets.

The existing asset categories and lives adopted are:

Table 5.5(b): Depreciation of Asset Base as at 1/7/08

Asset class	Remaining Life	% of total
Water Headworks	62.00	12.40
Water Treatment	21.00	18.11
Water Reticulation	57.00	16.67
Water Corporate	4.00	1.42
Sewerage Treatment	18.00	11.64
Sewerage Network	33.00	39.03
Sewerage Corporate	3.00	0.73

Depreciation of new assets is calculated on an average of 48 years for all new assets, except land (no depreciation). Regulatory depreciation has been calculated as follows:

Table 5.5(c): Regulatory Depreciation

	FIRST REG PERIOD				SECOND REG PERIOD				
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Regulatory depreciation									
Regulatory depreciation - Existing	1.06	1.06	1.06	0.99	2.53	2.53	2.53	2.36	2.13
Regulatory depreciation - New Assets	0.19	0.55	0.80	0.91	0.11	0.32	0.50	0.65	0.78
Regulatory depreciation - Total	**1.24**	**1.61**	**1.85**	**1.90**	**2.64**	**2.85**	**3.03**	**3.01**	**2.91**

5.5.3. Weighted average cost of capital

The weighted average cost of capital (WACC) is the return that South Gippsland Water seeks to earn on its RAB.

The proposed rate of return sought by South Gippsland Water is the indicative rate provided by the ESC, i.e. 5.1%.

The ESC utilises the capital asset pricing model (CAPM) in calculating the WACC. Table 5.5(d) details the individual parameters adopted.

Table 5.5(d): Indicative WACC Assumptions

	Forecast
Parameters	
Risk Free Rate (Real)	2.61%
Debt Premium	1.11%
Equity Premium	6.00%
Equity Beta	75%
Gearing (Debt/Assets)	60.00%
Franking credit value	0.5
'Vanilla' After Tax WACC (Real)	5.10%

5.6. Taxation

Under the Commission's approach to determining the revenue requirement South Gippsland Water is able to directly recoup the cost of company tax (payments under the National Tax Equivalents Regime (NTER)) during the regulatory period.

South Gippsland Water's financial estimates show that that the Corporation will not be required to make NTER payments during the second regulatory period. As such, this component of the revenue requirement is zero.

Chapter 6

DEMAND

6. DEMAND

6.1. Overview of demand forecasts

The cost and revenue forecasts contained in this Water Plan are dependent upon, amongst other things, the forecasts of demand for South Gippsland Water's services.

This section of the Water Plan summarises demand forecasts and the key assumptions adopted.

This includes:

- the key demand forecasting issues and key assumptions adopted in generating the forecasts; and
- tabular information summarising the forecasts and relevant historical information on demand.

The Victorian Government has required water businesses to develop Water Supply Demand Strategies and Sustainable Water Strategies. A Water Supply Demand Strategy has been produced to identify long term issues surrounding water scarcity, future growth and water use reduction programs. The strategy aims to give some planned certainty to urban users, but also incorporates the needs of other users and the environment to encapsulate a triple bottom line outcome towards sustainability.

The Victoria In Future 2004 forecasts and the Corporation's own historical data have been utilised to provide growth forecasts for new customers and estimate changes in water demand following awareness on climate change, implementation of permanent water savings rules, water savings education and programs and the effects of restrictions from the current drought.

6.2. Summary of demand forecasts

Table 6.1 details the relevant demand forecasts for South Gippsland Water. It shows historical information since 2002/03 and estimates/projections to the end of the Water Plan, i.e. 2012/13.

Factors that will impact on these forecasts include:

- water storage availability following the prolonged drought conditions (urban water and bulk water sales);
- demand management initiatives, and the effect on customer behaviour of continuing high level restrictions and tariff changes;
- household growth (Victoria In Future 2004 forecasts and the Corporation's own historical data have been utilised) with respect to water and wastewater connections, including developer lots for New Customer Contributions; and
- major customer behaviour in response to water shortages.

The table shows that water and wastewater connections (also developer lots) have grown at a higher rate than forecast in the first Water Plan. The variance is attributable to both a higher 2004/05 base than forecast, together with the higher than anticipated growth (mainly in coastal areas).

Total water consumption compared to estimated consumption in the first Water Plan shows fluctuating variations. For 2005/06, water consumption was 2.5% higher than estimated, predominately as a result of major customer usage. However, water consumption for 2006/07 will be lower than the Water Plan estimate by some 7.9%. This is as a result of the prolonged drought conditions and resultant extended restrictions. The drought conditions have also impacted on bulk water sales to Westernport Water, with 646,000kL's sold in 2005/06 (Water Plan estimate 200,000kL's).

Following significant customer education and engagement, and in particular with major customers, it is envisaged that continuing lower consumption patterns will result going forward.

Wastewater volumes are forecast to remain relatively consistent, as a proportion of water consumption. It should be noted that the affects of storm water infiltration in wet years can impact this figure significantly.

Material miscellaneous revenues comprise inspection fees, information certificates and water tapping fees. They have not been significantly volatile nor are forecast to be in future.

Table 6.2: Summary of Actual and Forecast Demand – 2002/03 to 2012/13

Year	Unit	2002/2003	2003/2004	2004/2005	2005/2006			2006/2007			2007/2008			2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
		Actual	Actual	Actual	Actual	Water Plan	Variance	Forecast	Water Plan	Variance	Forecast	Water Plan	Variance	Forecast	Forecast	Forecast	Forecast	Forecast
Water Connections																		
Residential	No.	13,818	14,092	14,396	14,674	14,487	187	14,944	14,659	285	15,195	14,832	363	15,425	15,660	15,899	16,142	16,380
Non Residential	No.	3,023	3,053	3,062	3,083	3,085	- 2	3,119	3,105	14	3,150	3,126	24	3,171	3,193	3,216	3,239	3,262
Total	No.	16,841	17,145	17,458	17,757	17,572	185	18,063	17,764	299	18,345	17,958	387	18,596	18,853	19,115	19,381	19,642
Wastewater Connections																		
Residential	No.	12,257	12,509	12,815	13,077	12,796	281	13,377	12,969	408	13,653	13,085	568	13,849	14,049	14,251	14,457	14,658
Non Residential	No.	1,158	1,166	1,169	1,172	1,186	- 14	1,185	1,197	- 12	1,200	1,207	- 7	1,210	1,220	1,230	1,240	1,250
Total	No.	13,415	13,675	13,984	14,249	13,982	267	14,562	14,166	396	14,853	14,292	561	15,059	15,269	15,481	15,697	15,908
Urban Water Consumption																		
Murray Goulburn	kL's	1,057,658	1,043,292	1,111,050	1,057,388	1,041,205	16,183	837,992	1,030,793	- 192,801	780,000	1,020,485	- 240,485	772,200	764,478	758,362	752,295	748,534
Other Major Customer	kL's	317,574	504,012	641,325	563,389	399,869	163,520	470,714	434,924	35,790	474,000	404,073	69,927	469,260	464,567	460,851	457,164	454,878
Agreement Customers	kL's	692,156	669,964	594,272	666,666	662,000	4,666	735,946	660,000	75,946	735,000	658,000	77,000	703,000	704,000	705,000	707,000	708,000
Residential & Non-res.	kL's	3,144,719	3,184,902	3,206,710	3,125,629	3,179,813	- 54,184	2,838,547	3,174,098	- 335,551	2,946,000	3,168,497	- 222,497	3,111,000	3,130,000	3,149,000	3,168,000	3,185,000
Total	kL's	5,212,107	5,402,170	5,553,357	5,413,072	5,282,887	130,185	4,883,199	5,299,815	- 416,616	4,935,000	5,251,055	- 316,055	5,055,460	5,063,045	5,073,213	5,084,459	5,096,412
Developer Lots																		
Water	No.	288	322	302	298	178	120	313	178	135	242	178	64	245	252	256	260	246
Wastewater	No.	103	337	281	248	88	160	378	88	290	205	88	117	208	211	214	217	205
Bulk Water	kL's	80,100	20,200	-	-	-	-	625,559	200,000	425,559	-	200,000	- 200,000	-	-	-	-	-
Wastewater Volumes	kL's	3,661	3,767	4,334	3,791	n/a	n/a	3,420	n/a	n/a	3,456	n/a	n/a	3,540	3,545	3,552	3,560	3,568
Miscellaneous Revenues																		
Inspection Fees	$'s	49,000	55,000	63,000	59,000	60,000	- 1,000	54,000	60,000	- 6,000	55,000	60,000	- 5,000	55,000	55,000	55,000	55,000	55,000
Information Statements	$'s	71,000	59,000	47,000	47,000	55,000	- 8,000	52,000	55,000	- 3,000	49,000	55,000	- 6,000	49,000	49,000	49,000	49,000	49,000
Water Tapping Fees	$'s	84,000	86,000	116,000	114,000	100,000	14,000	98,000	100,000	- 2,000	103,000	100,000	3,000	103,000	103,000	103,000	103,000	103,000

6.3. Individual demand forecasts

6.3.1. Population and Household Growth

The 2001 Census of Population and Housing took place on Tuesday, 7 August 2001, assessing the population of towns in various regional areas of Victoria. None of these regional areas satisfactorily maps to the area serviced by South Gippsland Water. As such, South Gippsland Water has utilised the disaggregated Regional Local Government Area (LGA) statistical information, although even this data presents problems with respect to direct representation of our serviced towns.

The three relevant LGA's are Bass Coast, South Gippsland and Wellington.

Utilisation of the data as representative of our area is problematic as:

- A substantial part of the Bass Coast LGA encompasses Phillip Island which is not part of our serviced region; and
- The towns in our region represented by Wellington are insignificant in size, i.e. Yarram, Port Albert, etc. Wellington is dominated by the major centre of Sale.

However, the South Gippsland LGA covers our major centres of Leongatha and Korumburra and provides a good nexus to growth in these towns.

According to the Victoria in Future 2004 data, population and household growth for the various LGA's has and is projected to increase as follows.

6.3.1.1 Bass Coast

Table 6.3(a): Bass Coast – Population and Households

Population and households

2001 2006 2011 2016 2021 2026 2031
Year

	2001	2006	2011	2016	2021	2031
Total Population	25,631	29,408	32,380	35,374	38,558	45,379
Pop. in private dwellings	25,289	29,007	31,920	34,860	38,001	44,589
Households	11,330	13,192	15,077	17,090	19,171	22,787
Average household size	2.232	2.199	2.117	2.040	1.982	1.957

	2001-2031	2001-06	2006-11	2011-16	2016-21	2021-31
Change in population						
Net	19,748	3,777	2,972	2,995	3,184	6,821
Average annual	1.9%	2.8%	1.9%	1.8%	1.7%	1.6%
Change in households						
Net	11,457	1,862	1,885	2,013	2,081	3,616
Average annual	2.4%	3.1%	2.7%	2.5%	2.3%	1.7%

Observations: Bass Coast is projected to maintain a population growth rate well above the average for Victoria and regional Victoria. Despite the ageing of the population in Bass Coast, and the addition of many retirees, it will also gain families, and will thus increase in all age ranges.

6.3.1.2 South Gippsland

Table 6.3(b): South Gippsland – Population and Households

Population and households

	2001	2006	2011	2016	2021	2031
Total Population	26,159	27,243	28,162	29,016	29,925	31,934
Pop. in private dwellings	25,795	26,852	27,743	28,576	29,475	31,359
Households	10,332	11,159	11,969	12,791	13,598	14,832
Average household size	2.497	2.406	2.318	2.234	2.168	2.114

	2001-2031	2001-06	2006-11	2011-16	2016-21	2021-31
Change in population						
Net	5,775	1,084	919	854	909	2,009
Average annual	0.7%	0.8%	0.7%	0.6%	0.6%	0.7%
Change in households						
Net	4,500	827	810	822	807	1,234
Average annual	1.2%	1.6%	1.4%	1.3%	1.2%	0.9%

Observations: South Gippsland is projected to experience moderate to strong population and household growth over the next 30 years. Growth is likely to be in the west of the Shire, driven by ex-urban growth from Melbourne, and in the central coastal areas, which will prove attractive to retirees and lifestyle migrants. Ageing will be a significant feature of population change in South Gippsland into the future.

6.3.1.3 Wellington

Table 6.3(c): Wellington – Population and Households

Population and households

	2001	2006	2011	2016	2021	2031
Total Population	41,462	41,361	41,519	41,511	41,473	41,446
Pop. in private dwellings	40,035	39,864	39,937	39,872	39,824	39,429
Households	16,052	16,621	17,302	17,938	18,504	19,202
Average household size	2.494	2.398	2.308	2.223	2.152	2.053

	2001-2031	2001-06	2006-11	2011-16	2016-21	2021-31
Change in population						
Net	-16	-101	158	-8	-38	-27
Average annual	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Change in households						
Net	3,150	569	681	636	566	698
Average annual	0.6%	0.7%	0.8%	0.7%	0.6%	0.4%

Observations: The Shire of Wellington is likely to have a relatively stable population over the next 30 years, although there are likely to be population gains and losses in different parts of the Shire. Household numbers, however, will increase as average household size drops and young family households are replaced by older empty nesters and retirees.

6.3.2. Water Customer Growth

While population growth is useful, the change in households has been utilised as the key indicator as it provides a more meaningful figure with respect to estimating new connections and future capital requirements.

6.3.2.1 Water Customer Growth – Southern District

The 'Victoria in Future 2004 Bass Coast's reports the projected rate for the net average annual change in households as 2.7% between the period 2006

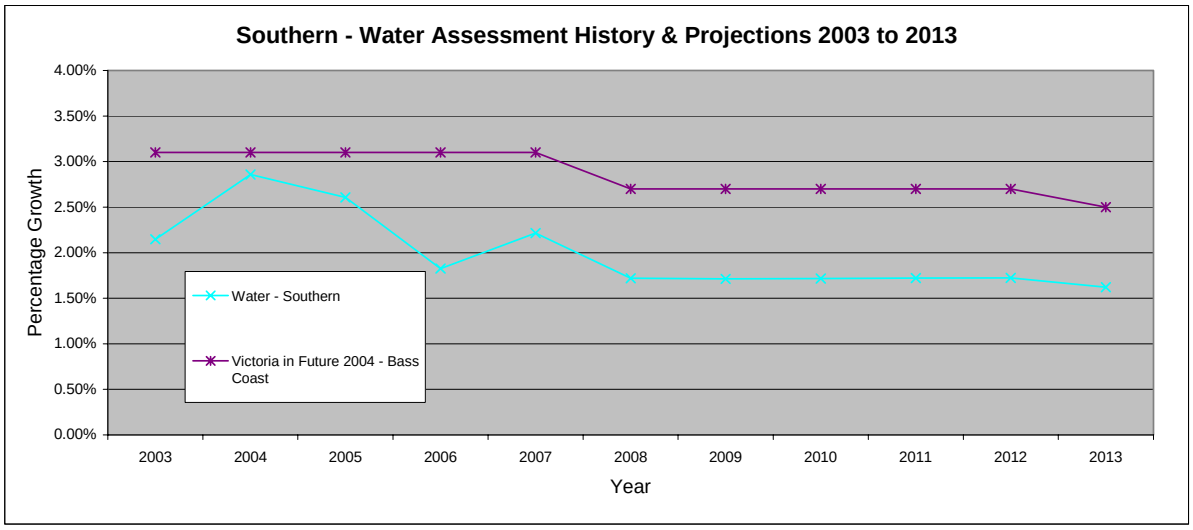
and 2011, reducing to 2.5% from 2011 to 2016. The actual net average annual change was 3.1% from 2001 to 2006.

The actual growth experienced by the Corporation for the number of connections to the water supply network (Southern District) during the period 2002/2003 to 2005/2006 was 760 at an average annual rate of 2.3%. This is markedly different (proportionally around 70%) to the 'Victoria in Future 2004 Bass Coast's figure of 3.1%. This can be attributed to the fact that the Bass Coast LGA also covers the popular Phillip Island region encompassing the towns of Cowes, San Remo, Newhaven, etc.

A proportional weighting of 67% has been applied to the projected 'Victoria in Future 2004 Bass Coast' figure of 2.7% between the period 2006 and 2011 to arrive at an average annual rate of growth for residential customers of 1.8%. In turn South Gippsland Water has utilised historical data to arrive at an average annual rate of growth for commercial customers of 0.9%.

This results in a weighted average annual rate of growth of 1.72% for the Southern district. As demonstrated in the following graph, the rate of growth decreases in 2012/13 consistent with the 'Victoria in Future 2004 Bass Coast' estimates.

Graph 6.3(a): Southern – Water Assessment History & Projections 2003 to 2013



6.3.2.2 Water Customer Growth – East/West District

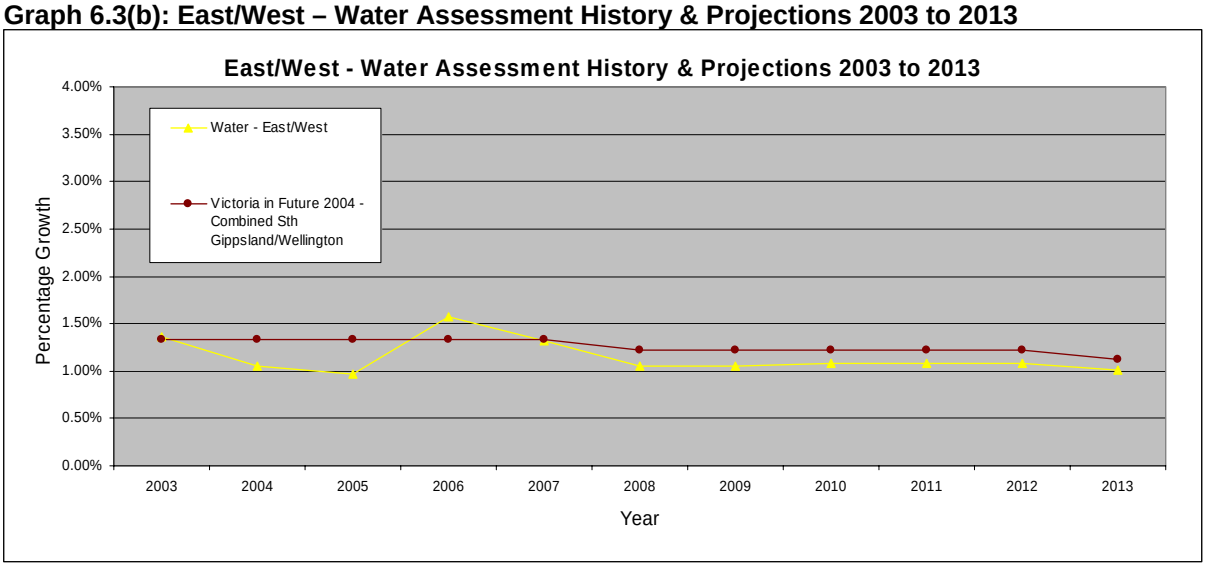
The actual growth experienced by the Corporation for the number of connections to the water supply network (East/West District) during the period 2002/2003 to 2005/2006 was 450 at an average annual rate of 1.24%. This varies to the 'Victoria in Future 2004 Gippsland and Wellington' household growth figures of 1.6% and 0.7% respectively. The correlation, however, is more evident on a weighted average annual rate of 1.3% for both LGA's.

The 'Victoria in Future 2004 South Gippsland and Wellington' reports estimate the projected rate for the net average annual change in households as 1.4% and 0.8% respectively between the period 2006 and 2011, reducing to 1.3% and 0.8% from 2011 to 2016. As stated, the actual net average annual change was 1.24% from 2001 to 2006.

A weighted average annual growth rate for residential customers of 1.22% has been applied between the period 2006 and 2011. In turn South Gippsland Water has utilised historical data to arrive at an average annual rate of growth for commercial customers of 0.7%.

This results in a weighted average annual rate of growth of 1.08% for the East/West district. As demonstrated in the following graph, the rate of growth decreases in 2012/13 consistent with the 'Victoria in Future 2004' estimates.

Graph 6.3(b): East/West – Water Assessment History & Projections 2003 to 2013



6.3.3. Summary of Water Customer Growth

Resultant water customer growth for the South Gippsland Water region as a whole is shown in Table 6.3(d) below.

Table 6.3(d): Summary of Water Customer Growth – 2005/06 to 2012/13

Year	Unit	2005/2006 Actual	2006/2007 Forecast	2007/2008 Forecast	2008/2009 Forecast	2009/2010 Forecast	2010/2011 Forecast	2011/2012 Forecast	2012/2013 Forecast
Water Connections									
Residential	No.	14,674	14,944	15,195	15,425	15,660	15,899	16,142	16,380
Non Residential	No.	3,083	3,119	3,150	3,171	3,193	3,216	3,239	3,262
Total	No.	17,757	18,063	18,345	18,596	18,853	19,115	19,381	19,642

6.3.4. Wastewater Customer Growth

The actual growth experienced by the Corporation for the number of connections to the wastewater network during the period 2002/2003 to 2005/2006 was 1,049 at an average annual rate of 1.9%. This varies to the 'Victoria in Future 2004 Bass Coast, Gippsland and Wellington' household growth figures of 3.1%, 1.6% and 0.7% respectively. The correlation, however, is more evident, however, still proportionally different (around 85%) on a weighted average annual household growth rate of 2.2% for the three LGA's.

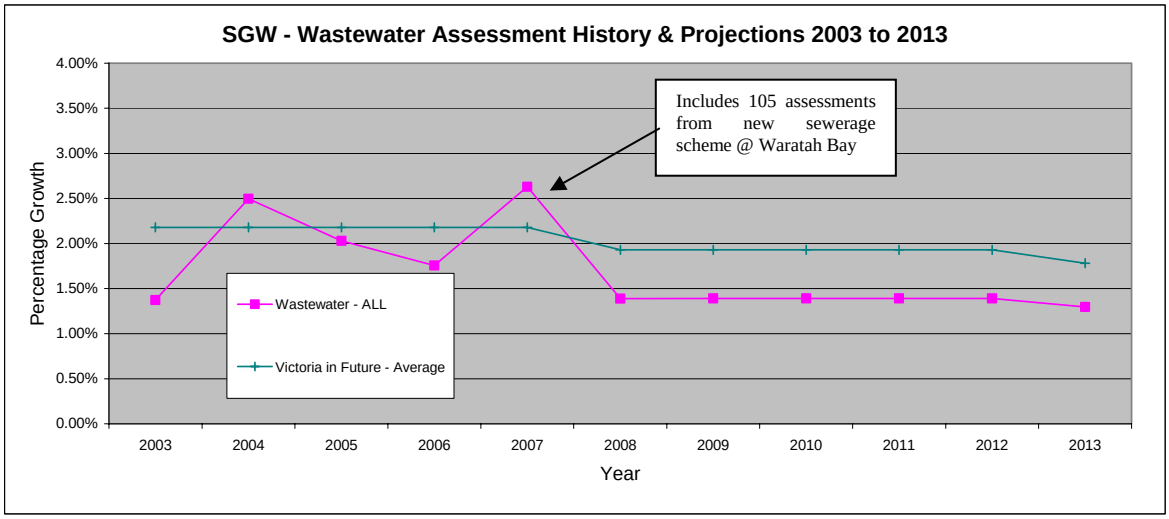
The 'Victoria in Future 2004 Bass Coast, South Gippsland and Wellington' reports estimate the projected rate for the net average annual change in households as

2.7%, 1.4% and 0.8% respectively between the period 2006 and 2011, reducing to 2.5%, 1.3% and 0.8% from 2011 to 2016. As stated, the actual net average annual change was 1.9% from 2001 to 2006.

A weighted average annual growth rate for residential customers of 1.44% has been applied between the period 2006 and 2011. In turn South Gippsland Water has utilised historical data to arrive at an average annual rate of growth for commercial customers of 0.8%.

This results in a weighted average annual rate of growth of 1.39%, excluding the effect of the commissioning of Small Town Sewerage Schemes. As demonstrated in the following graph, the rate of growth decreases in 2012/13 consistent with the 'Victoria in Future 2004' estimates.

Graph 6.3(c): SGW – Wastewater Assessment History & Projections 1997 to 2013



** Note the above graph excludes the impact of new Small Town Sewerage Scmes planned for Meeniyan and Powwong/Loch/Nyora.*

Wastewater customer growth (excluding the effect of the commissioning of Small Town Sewerage Schemes) for the South Gippsland Water region is shown in Table 6.3(e) below.

Table 6.3(e): Summary of Wastewater Customer Growth – 2005/06 to 2012/13

Year	Unit	2005/2006 Actual	2006/2007 Forecast	2007/2008 Forecast	2008/2009 Forecast	2009/2010 Forecast	2010/2011 Forecast	2011/2012 Forecast	2012/2013 Forecast
Wastewater Connections									
Residential	No.	13,077	13,377	13,653	13,849	14,049	14,251	14,457	14,658
Non Residential	No.	1,172	1,185	1,200	1,210	1,220	1,230	1,240	1,250
Total	No.	14,249	14,562	14,853	15,059	15,269	15,481	15,697	15,908

Customer numbers with respect to Small Town Sewerage Schemes are detailed in the Table below.

Table 6.3(f): Summary of Small Town Sewerage Scheme Customers - 2005/06 to 2012/13

Year	Unit	2008/2009 Forecast	2009/2010 Forecast	2010/2011 Forecast	2011/2012 Forecast	2012/2013 Forecast
Wastewater Connections						
Developed	No.	-	-	185	649	656
Undeveloped	No.	-	-	21	76	77
Total	No.	-	-	206	725	733

6.3.5. Developer lots

Developer lots have been forecast to move in line with water and wastewater customer growth as detailed in 6.3.3 and 6.3.4. That is:

Table 6.3(g): Summary of Developer Lots Growth – 2005/06 to 2012/13

Year	Unit	2005/2006 Actual	2006/2007 Forecast	2007/2008 Forecast	2008/2009 Forecast	2009/2010 Forecast	2010/2011 Forecast	2011/2012 Forecast	2012/2013 Forecast
Developer Lots									
Water	No.	298	313	242	245	252	256	260	246
Wastewater	No.	248	378	205	208	211	214	217	205

6.3.6. Urban water consumption

6.3.6.1 Introduction

South Gippsland Water is expecting growth in demand for water from a number of sources, namely residential population growth, and industrial and commercial expansion.

6.3.6.2 Types of demand

For the purposes of forecasting growth in demand, total demand has been split into various types. Different growth rates are applied separately to each type. The demand components are:

- Residential demand – consists of domestic household demand.
- Commercial demand – consists of non-domestic demand, but excludes major industrial demand.
- Supply by agreement and concessions – includes customers such as municipal parks and gardens, and rural tappings supplied by agreement. Concession properties are defined such as hospitals, churches, scout halls, not for profit groups, etc. Agreement customers are typically residential rural and farming enterprises with urban water access.
- Major industrial demand – consists of major industrial customers, namely Murray Goulburn, Burra Foods, Esso, Poowong Abattoirs and Tabro Meats.

As discussed previously, urban demand (growth in customers) for the various customer demographics has been assumed to vary proportionally with the 'Victoria In Future 2004' household growth forecasts.

The weighted average annual growth rates utilised are:

	Residential	Non-Residential*
East/West District -	1.22% p.a.	0.70% p.a.
Southern District -	1.80% p.a.	0.90% p.a.

*Includes Agreement and Concessional customers

Growth in major industrial demand is considered on a case by case basis.

6.3.6.3 Current Demand

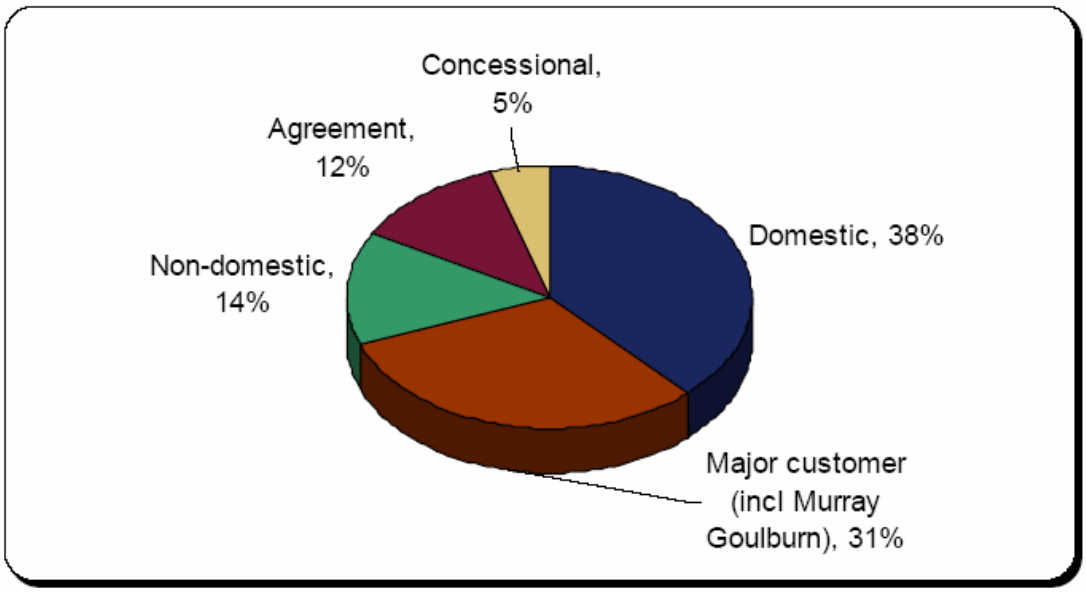
Current indicative consumption for water in South Gippsland Water's supply systems is summarised below in Table 6.3(h) and Graph 6.3(d). The figures in this table represent the average annual metered water sales.

South Gippsland Water has historically provided around 5.4GL/yr of water, of which 57% is used to supply residential and commercial customers, 31% supplies major industrial customers and the remaining 12% is utilised by supply by agreement customers.

Table 6.3(h): Current long-term average metered demand

Supply System	Towns Currently Supplied	Residential/ Commercial demand (ML/yr)	Major industrial demand (ML/yr)	Supply by agreement demand (ML/yr)	Total demand (ML/yr)
Little Bass River	Poowong, Loch, Nyora	102	114	31	247
Coalition Creek	Korumburra	368	108	16	492
Ruby Creek	Leongatha, Koonwarra	619	1,190	25	1834
Lance Creek	Wonthaggi, Cape Paterson, Inverloch	1149	132	208	1489
Tarwin River East Branch	Dumbalk	14	0	1	15
Tarwin River	Meeniyan	44	0	14	58
Deep Creek/Foster Dam	Foster	116	0	39	155
Battery Creek	Fish Creek	22	0	130	152
Agnes River	Toora, Welshpool, Port Welshpool, Port Franklin	350	30	120	500
Tarra River	Yarram, Alberton, Port Albert, Devon North	387	0	83	470
TOTAL		3,171	1,574	667	5,412

Graph 6.3(d) Typical South Gippsland Water, water consumption by customer type



6.3.6.4 Average Water Consumption, including Demand Initiatives

South Gippsland Water is currently undertaking measures which are expected to result in per capita demand reduction over time. South Gippsland Water is part of the savewater!TM alliance through the Victorian Water Industry Association, which represents all Victorian water corporations.

For estimating the effect of demand reduction initiatives, South Gippsland Water relies upon the detailed demand information derived from Melbourne's end-use model, which models property scale demand by considering the in-house and external water use of each property (WaterSmart, 2006a). It is acknowledged that there are some differences between consumer behaviour in Melbourne and South Gippsland, however, given the high degree of uncertainty surrounding demand reduction forecasts, this adoption of technical information from Melbourne with justifiable adjustments is considered appropriate.

In recent years, water conservation efforts by the water utilities and the Victorian Government have targeted all major aspects of residential water use with an emphasis on education and behaviour change. A rebate scheme for water conservation products has been operating since January 2003. For example, AAA shower roses attract a $10 rebate on the purchase price, whilst rainwater tanks with a connection to the toilet for flushing attract a $300 rebate. The most noteworthy regulatory changes affecting residential indoor water use have been:

- The introduction of a mandatory water efficiency labelling for appliances (commencing 2006) under the national Water Efficiency Labelling and Standards Scheme (WELS);
- The introduction of rising block tariffs, which result in higher charges for high water users; and
- The Five Star Home standards.

Outdoor water use has been targeted through the introduction of permanent water saving measures, which include the requirement for a trigger nozzle on hoses, restricted times for garden watering, no hosing of paved areas and notification to be given to South Gippsland Water when filling a new pool.

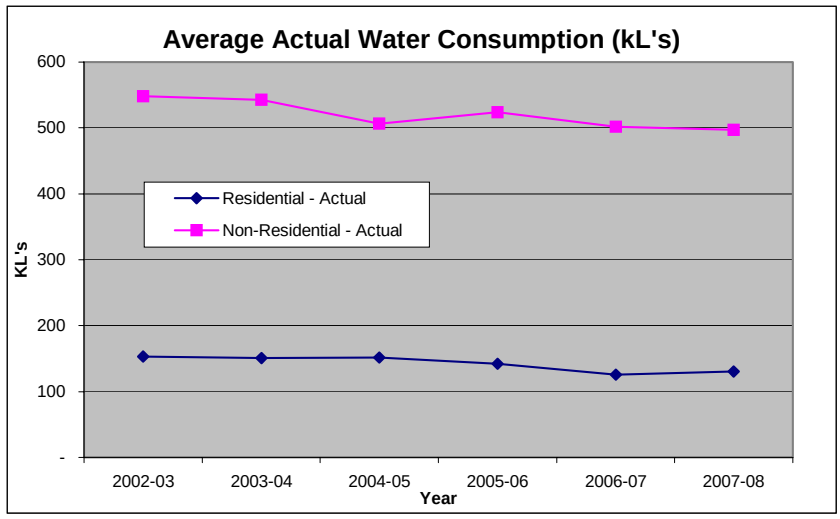
South Gippsland Water also promotes water conservation through local measures, such as the inclusion of an individual's water consumption information on bills.

Average consumption patterns have steadily declined over the last 5 years. The following graph demonstrates the substantial decrease from 2002/03 to 2006/07. 18.3% (residential) and 8.4% (non-residential including agreement and concessional customers but excluding major customers).

It is recognised that the lower 2006/07 average consumption patterns have been underpinned by the prevalence of widespread Stage 4 water restrictions which will impact into 2007/08.

However, While there will be a "bounce back" in average consumptions, it is not expected to be to pre-restriction levels as elements of recent customer behaviour changes endure. These behaviours will continue to be reinforce via a number of water saving messages.

Graph 6.3(e) Actual V's Water Consumption (kL's)



	kL's	kL's	kL's	kL's	kL's	kL's
Residential	153	151	152	142	125	131
Non-Residential	548	542	507	524	502	497

South Gippsland Water will actively pursue further demand reduction in each of its supply systems. The Corporation has set a demand reduction target in line with State Government targets set for other water corporations across Victoria of:

- 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, South 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. (Refer South Gippsland Water's Water Supply Demand Strategy June 2007). The demand reduction amounts include reduction targets of 0.85% (residential) and 0.53% (non-residential) per connection for each year of the Water Plan. This equates to a per capita reduction of approximately 4% over the regulatory period.

Table 6.3(i) outlines the water consumption targets (kL's) by customer demographic, excluding major customers.

Table 6.3(i) Average Water Consumption

				FIRST REG PERIOD			SECOND REG PERIOD				
	2002-03 Actual	2003-04 Actual	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Est.	2008-09 Water Plan	2009-10 Water Plan	2010-11 Water Plan	2011-12 Water Plan	2012-13 Water Plan
Average Water Consumption (kL's)											
Residential											
East/West	172	173	165	163	135	143	153	152	151	150	149
Southern	136	132	140	124	117	120	122	121	120	119	118
Total	153	151	152	142	125	131	136	135	134	133	132
Non-Residential (excl. majors)											
East/West	548	542	507	524	502	497	512	509	507	504	502
Southern	587	605	563	608	651	646	609	605	602	599	595
Total	557	557	520	543	537	532	535	532	529	526	524

6.3.6.5 Growth in major customer demand

There are a number of major industrial demands in the South Gippsland Water supply area. Long term growth in major industrial demand is difficult to predict because the planning horizon for industry is often not longer than a few years. Technological developments and market fluctuations also play a major part in the ability of major industrial customers to reduce water consumption.

Estimates of growth in major industrial demand are generally not forthcoming from major industries due to commercial confidentiality.

South Gippsland Water's single largest customer, Murray Goulburn has introduced water saving measures to date but the extent of water saving and reuse has generally been limited by costs and technology.

However, a recent announcement was made by the State Government and Murray Goulburn of government funding to support the introduction of water reuse measures within Murray Goulburn's factory. This could result in water demand savings of up to 600 ML/yr (nearly 60%) within the next few years. A more conservative reduction of 29% has been assumed for the purposes of demand forecasting. As a result of 2006/07 drought conditions, Murray Goulburn's internal production modifications have largely achieved this.

While assumptions of demand have been made in this Water Plan, there remains a degree of uncertainty surrounding future demand for Murray Goulburn and hence it is essential that South Gippsland Water continue to communicate with Murray Goulburn about their water needs and ability to conserve water on an ongoing basis.

Table 6.3(j) provides a summary of current major customer consumption and future assumptions.

Table 6.3(j) Current major customer demands

Supply System	Major industrial customer	Current major customer demand (ML/yr)	Future additional industrial demand (ML/yr)
Little Bass River	Poowong Abattoir	114	No change in demand 1% efficiency each year
Coalition Creek	Burra Foods	108	No change in demand 1% efficiency each year
Ruby Creek	Murray Goulburn	1,100	29% reduction by 2008/09 1% efficiency each year
	Leongatha Steam Plant	90	No change in demand 1% efficiency each year
Lance Creek	Tabro Meats	132	No change in demand 1% efficiency each year
Agnes River	Esso	30	No change in demand 1% efficiency each year
TOTAL		1,574	

6.3.6.6 Summary of Water Consumption Forecasts

The major customer demand estimates, projected number of water customers, and average consumption patterns have been analysed in order to formulate total water consumption demand.

Table 6.3(k) details the overall water consumption demand history and forecasts. Total demand is forecast to increase by 161ML over the Water Plan period.

Significantly, this change is made up of:

- reducing demand by major customers (Murray Goulburn lower by 31ML, all other major customers down by 19ML's);
- reduced demand from Agreement Customers (down by 27ML's); and
- growth (8.1%) from Residential and Non-residential customers (up by 239ML's) due to the prevalence of wide ranging restrictions during 2007/08.

Table 6.3(k) Summary of Urban Water Consumption – 2002/03 to 2012/13

Year	Unit	2002/2003 Actual	2003/2004 Actual	2004/2005 Actual	2005/2006 Actual	2006/2007 Forecast	2007/2008 Forecast	2008/2009 Forecast	2009/2010 Forecast	2010/2011 Forecast	2011/2012 Forecast	2012/2013 Forecast
Urban Water Consumption												
Murray Goulburn	kL's	1,057,658	1,043,292	1,111,050	1,057,388	837,992	780,000	772,200	764,478	758,362	752,295	748,534
Other Major Customer	kL's	317,574	504,012	641,325	563,389	470,714	474,000	469,260	464,567	460,851	457,164	454,878
Agreement Customers	kL's	692,156	669,964	594,272	666,666	735,946	735,000	703,000	704,000	705,000	707,000	708,000
Residential & Non-residential	kL's	3,144,719	3,184,902	3,206,710	3,125,629	2,838,547	2,946,000	3,111,000	3,130,000	3,149,000	3,168,000	3,185,000
Total	kL's	5,212,107	5,402,170	5,553,357	5,413,072	4,883,199	4,935,000	5,055,460	5,063,045	5,073,213	5,084,459	5,096,412

6.3.7. Bulk Water Sales

The onset of drought conditions during 2006/07 resulted in a higher than anticipated demand for bulk water from Westernport Water. They pumped 625,559kL's compared to a forecast of 200,000 kL's. The significantly higher bulk water sales resulted in extra revenue of around $43,000. However, this put extreme stress on our Lance Creek system which resulted in extra operating costs and lower retail water revenue. That is, the system entered restrictions earlier than would have been the case. Treatment systems have had to cope with lower raw water quality as the reservoir dropped to critical levels.

South Gippsland Water has terminated the current agreement for bulk water sales to Westernport water and is not envisaging any further bulk water sales during the regulatory period.

6.3.8. Wastewater Volumes

Wastewater volumes are forecast to remain relatively consistent, as a proportion of water consumption. It should be noted that the affects of storm water infiltration in wet years can impact this figure significantly.

South Gippsland Water utilises a one-part tariff (a single service fee with no volumetric component) for wastewater services, therefore wastewater volumes play no part in revenue collection.

6.3.9. Cistern Customers

Minor trade waste customers are currently charged under our wastewater general tariff, i.e. at the same rate as for our domestic customers.

There is one exception where businesses such as sporting, tourism, education, and hospitals, etc. are charged under a cistern based framework where a service charge applies based on the number of cisterns together with a volumetric charge (per kL of water consumption), which is tiered between 0 to 80% depending on assessment demographics. Refer schedule of pricing for details.

Cistern customers are forecast to remain static in number and consumption during the Water Plan period and a minor trade waste tariff structure is proposed for implementation from 1 July 2008.

6.3.10. Major Trade Waste

Major trade waste customers are those whose discharges have the potential to create a significant impact on a wastewater collection, treatment or disposal system.

Table 6.3(l) below summarises South Gippsland Water's major trade waste customers.

Table 6.3(l) Major Trade Waste Customers

Customer	Volume (kL/y)	System	Treatment	Discharged Point
Murray Goulburn Cooperative Ltd	1,000,000	Regional Saline Outfall	Secondary	Venus Bay
Burra Foods	75,000	Korumburra Domestic	Tertiary	Foster Creek
Leongatha Steam Co Ltd	60,000	Leongatha Domestic	Tertiary	Little Ruby Creek
Korumburra Sale Yards (to cease to be a customer from 2007/08)	30,000	Korumburra Domestic	Tertiary	Foster Creek

South Gippsland Water has Trade Waste Agreements with all of these customers.

The Trade Waste Agreements set maximum discharge limits for nominated attributes of the trade waste stream. These limits are based on the capacity and treatment potential of the specific treatment plant to which the customer discharges.

The agreements set financial penalties for customers who exceed their discharge limits (determined as multiples of the base charges). There are also negotiated excess limits based on the impact of the discharge on the specific treatment plant.

6.3.11. Miscellaneous Revenue

Material miscellaneous revenues comprise inspection fees, information certificates and water tapping fees. No individual miscellaneous service comprises more that 1% of South Gippsland Water's prescribed revenue. In total, all miscellaneous revenue comprises less than 2%.

Demand for material miscellaneous services correlates to activity in housing, including developments, sales and changes to home ownership which may be either purchases of new housing units or changes of ownership of older dwellings.

Estimates of revenue have been based on historical analysis. Historically, they have not been significantly volatile nor are forecast to be in future. Table 6.3(m) below details historical and forecast miscellaneous revenue.

Table 6.3(m) Miscellaneous Revenue 2005/06 – 2012/13

Year	Unit	2005/2006 Actual	2006/2007 Forecast	2007/2008 Forecast	2008/2009 Forecast	2009/2010 Forecast	2010/2011 Forecast	2011/2012 Forecast	2012/2013 Forecast
Miscellaneous Revenues									
Inspection Fees	$'s	59,000	54,000	55,000	55,000	55,000	55,000	55,000	55,000
Information Statements	$'s	47,000	52,000	49,000	49,000	49,000	49,000	49,000	49,000
Water Tapping Fees	$'s	114,000	98,000	103,000	103,000	103,000	103,000	103,000	103,000

Chapter 7

PRICES

7. Prices

7.1. Tariff structures

This section of the Water Plan identifies the prices and tariff structures that South Gippsland Water are proposing to implement over the regulatory period. The major categories of tariffs that South Gippsland Water will levy over the Water Plan period are:

- retail water;
- retail sewerage;
- recycled water;
- new customer contributions; and
- trade waste.

The pricing direction follows a number of previously stated objectives of the South Gippsland Water Board. That is, to

- Move towards a uniform water service charge across the region, (South Gippsland Water currently has two separate water service charges); and
- Increase the volumetric water component of water tariffs as a proportion of the total water account and wastewater.

The over-riding objective for South Gippsland Water in setting prices is to ensure that customers are provided with efficient signals about the costs of providing services and incentives for sustainable water use.

A number of more specific criteria included:

- Sustainable use incentives: there are appropriate signals about the incentives for customers to use water resources sustainably.
- Cost reflectivity: prices should recover sufficient costs to sustain the business.
- Practical, credible and understandable: South Gippsland Water should be able to easily explain the pricing approach and/or other demand management tools to consumers and other stakeholders.
- Pricing stability: the pricing approach should not result in dramatic price changes over time.
- Reliable: the approach should minimise potential for error in design and implementation.
- Fair and objective: All water demand management measures will impose costs somewhere in the community. A value judgement will need to be made about the fair distribution of these costs.

The weighted average price increase to an average customer (a domestic customer with a water and wastewater service) as a result of the commitments and outcomes presented in this Water Plan is 3.5% p.a. excluding inflation.

7.1.1. Underlying cost justification

The following Table 7.1(a) is based on data from 2005/06 annual reports. It illustrates that the proportion of revenue sourced from volumetric charges by South Gippsland Water is low (3rd lowest) relative to other Victorian water corporations.

Table 7.1(a) Revenue from Water and Wastewater Charges, by type, 2005-06

Source: Various Annual Reports.

Note: Excludes revenue from developer contributions and other miscellaneous charges.

Authority	Revenue		% of Total Revenue	
	Fixed	Volumetric	Fixed	Volumetric
	$'000		%	
Victoria				
Regional Urban Businesses				
Westernport Water	8,476	1,869	82	18
East Gippsland Water	10,540	3,936	73	27
South Gippsland Water	8,328	3,778	69	31
Western Water	21,706	10,835	67	33
Lower Murray Water	21,132	10,793	66	34
GWM Water	21,195	12,049	64	36
Central Highlands Water	23,771	13,884	63	37
Gippsland Water	32,218	19,611	62	38
Wannon Water	16,366	13,789	54	46
North East Water	15,019	12,681	54	46
Goulburn Valley Water	16,939	14,914	53	47
Barwon Water	35,028	47,906	42	58
Metropolitan Businesses				
City West Water	61,933	134,517	32	68
South East Water	110,047	205,135	35	65
Yarra Valley Water	119,263	213,434	36	64
Other jurisdictions				
Sydney Water	676,093	589,106	53	47
Hunter Water	64,194	75,929	46	54
Water Corporation, WA	541,249	249,201	68	32
Simple Average			57	43

The positioning is a result of two important points:-

1. the price per kL of water supplied; and
2. the average consumption of customers.

That is, while the price per kL of water may be high or low, consumption will be an important determinant in the total bill.

Based on average water use of 141kL's for a typical East/West residential customer, their 2007/08 water and wastewater tariffs comprise only 20% of volumetric charges.

While South Gippsland Water has a relatively high volumetric water rate per kL (99c for 2007/08), it is the relatively low average consumption (second lowest in Victoria according to the 2006/07 VicWater Water Review), that drives this result.

South Gippsland Water is seeking to promote the sustainable use of water by placing less emphasis on the fixed component of the water charge and increasing the volumetric component.

Guidance by the ESC advised that Water Plan proposals should be accompanied by supporting evidence regarding cost drivers. For example, where there is a proposal to significantly increase a variable charge on the basis of better signaling future capital expenditure incurred by a business in maintaining its demand/supply balance, the proposal should be accompanied by estimates of long run marginal costs (LRMC). Refer Section 7.1.4.4 with respect to water services.

7.1.2. Changes in customer behaviour

Prices send signals to customers but the extent to which customers respond to those signals will depend on the price elasticity of demand. Price elasticity measures the responsiveness of demand to price changes. If a good or service has an elasticity of –1.0 this implies a 10 per cent increase in price would result in a 10 per cent reduction in the quantity demanded. Price demand elasticities for water are considered to vary according the following variables:

- Customer classes. That is income, property size, features, etc.
- Types of water use. These are broken down into discretionary and non-discretionary. For residential consumers this is sometimes considered indoor versus outdoor water use.
    - A demand function for discretionary demand, that is demand above the necessity threshold is;

      $Q = aP^b$

      Q = quantity demanded

      a = other demand influencing factors

      b = price elasticity of demand
- Time of the year, i.e. season
- Climate. General climate of areas, level of rainfall, drought, etc.
- Time. Demand for water is more elastic over time as consumers repair leakages, update technologies and appliances, change habits and lifestyle, change their garden types and new properties are built with water saving technology. For commercial users they have time to leave an enterprise if the water price makes it unviable.
- Consumer awareness. The effect of price changes on demand will also be affected by the consumers understanding of how their consumption affects the price they pay and how they can reduce their consumption, and therefore they can make informed decisions.

Because of these factors there is no single elasticity for water. The effects of price on demand will depend on particular business and regional characterises, and may vary over time.

Findings from studies into price elasticity of water demand have found water to be relatively price inelastic, however, not price unresponsive, implying that the price mechanism can be an effective tool for managing the demand and consumption of residential water. It is generally agreed to reduce water use, price should be used in conjunction with other activities including public awareness, technology changes, repairs, education and even restrictions.

Elasticity of water also varies as the use of water does, be it discretionary or non-discretionally, sometimes considered the difference between indoor and outdoor water use. Non-discretionary is more elastic as it is considered, unlike discretionary water uses, essential for daily life. Importantly studies suggest that the demand for water is more elastic over time as there is a lag between the changes in water prices and their eventual impact on the quantity demanded, reflecting that over time consumers have more opportunities to change technology, preferences and behaviour.

It should be noted that South Gippsland Water's average water consumption is second lowest in the state, which would anecdotally indicate a fairly low proportion of discretionary demand.

At this stage the effect of price increases on demand has not been factored into demand forecasts.

7.1.3. Customer impact issues

An analysis of the impact on customers has been undertaken by South Gippsland Water with respect to the tariff framework put forward in this Water Plan. The most significant impacts result from the staged rebalancing between the two different district water service charges (i.e. implementation of a uniform water service charge) and the increase in volumetric water revenue relative to fixed service charges.

Details of the pricing impacts are discussed later, however, South Gippsland Water has considered a number of related issues, viz:

Issue	Impact
Tariff structure implementation costs.	Negligible, no further systems required.
Customer information on tariffs.	Well established tariff structure. Information mostly required on reinforcing messages re sustainable water use. Will utilise existing customer contact techniques.
Pricing effects on low income and vulnerable customers.	Hardship policies to be revised.
Staged tariff increases or big bang.	South Gippsland Water will ease the increase over the 5 year Water Plan period.

7.1.4. Retail water tariff proposal

7.1.4.1 Background

South Gippsland Water's water customers can be categorised into five broad categories:

Residential
A residential property is defined as a property that is provided for domestic purposes and includes houses, flats, units, townhouses, rural residences, police dwellings, retirement villages or any other properties that have similar water behaviour to a "House"

This includes vacant land (undeveloped) serviced by a water main and receiving a bill.

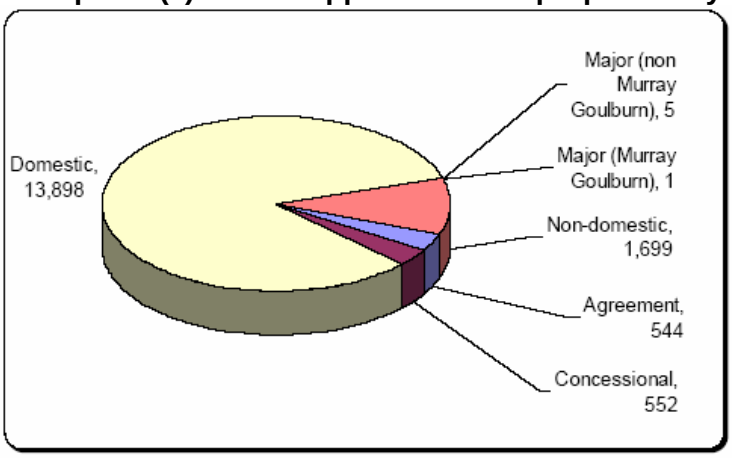
Non-residential
Non-residential properties include all other buildings or vacant land (undeveloped) not defined as "residential". Generally, this would include properties that have been established for some commercial reason.

Concessional
Concessional properties can be broadly defined as properties to which the public has free access and is not being operated for any private profit. This includes schools, community facilities, churches, sporting grounds and parks.

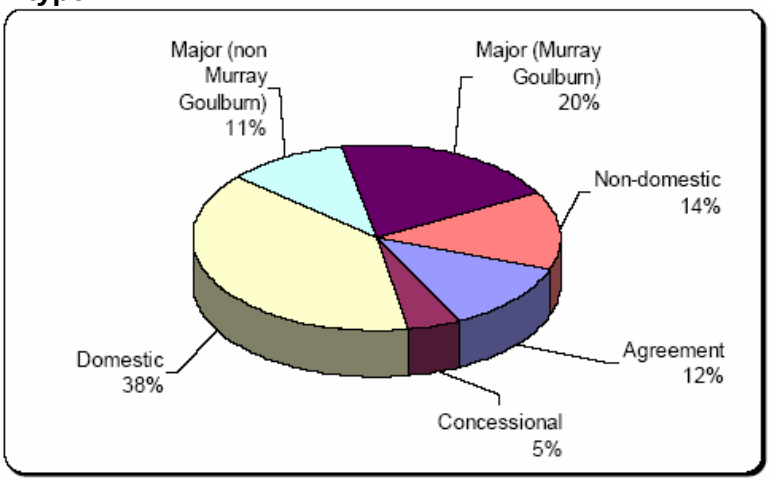
Agreement
A number of properties receive water from various sources where the quality or reliability of service is not guaranteed. South Gippsland Water has agreements with these properties which specify the conditions under which the water is supplied and the charging that will occur.

Major Customer
South Gippsland Water has a number of major customers that account for a large amount of the water supplied. Graphs 7.1(a) and 7.1(b) present the number of properties in each category and the proportion of water used by each customer type.

Graph 7.1(a) South Gippsland Water properties by customer type



Graph 7.1(b) South Gippsland Water water consumption by customer type



As is evident, major and non-domestic customers, which comprise 10% of the total number of properties, account for 45% of total water use. Whilst a large proportion of consumption is by residential customers, a larger proportion of water is consumed by non-residential and large customers.

South Gippsland Water's current water tariff structure contains two districts (East/West and Southern). The reason for the two district service charge is historically based and reflected in the various levels of water treatment infrastructure (including major capital investment in the Southern district in the mid to lat 1990's). While the varying treatment processes have now been standardised, the price freezes and uniform increases of the early 2000's led to a widening of the gap between the district tariffs. Commencing with the first Water Plan, South Gippsland Water's Board has been pursuing a phased convergence of the two districts into one uniform service charge.

The volumetric water rate is uniform across both districts, although a separate volumetric rate applies to Murray Goulburn, whom consume around 20% of total metered water. This differential volumetric tariff was in place prior to the 1995 amalgamation of local water boards and reflected the capacity Murray Goulburn utilised from the Ruby Creek (Leongatha and Koonwarra) system. In 2006/07 Murray Goulburn comprised 65% of the Ruby Creek supply's consumption.

While this Water Plan maintains the Murray Goulburn volumetric tariff, South Gippsland Water and Murray Goulburn are discussing other tariff scenarios, including removal of the differential tariff and establishment of a fixed capacity charge. Discussions on this issue are expected to continue through the determination period.

Table 7.1(b) Historical and current retail water tariffs (real)

Tariff and Price Component *$, 1/1/07*	*Price (1 July 2004)*	*Price (1 July 2005)*	*Price (1 July 2006)*	*Price (1 July 2007)*
1.1 Water access fees (per annum)				
East/West District				
Access fee – Developed	143.57	165.13	182.55	199.88
Access fee – Undeveloped	143.57	165.13	182.55	199.88
Access fee – Agreements	130.61	150.15	166.05	181.72
Access fee – Concessional	121.20	139.34	154.05	168.69
Southern District				
Access fee – Developed	257.42	269.87	273.90	278.08
Access fee – Undeveloped	257.42	269.87	273.90	278.08
Access fee – Agreements	231.33	242.53	246.15	249.81
Access fee – Concessional	121.20	139.34	154.05	168.69
1.2 Water usage charges (per kL)				
Volumetric fee – Murray Goulburn	0.8697	0.9886	1.0750	1.1754
Volumetric fee – All others	0.7063	0.8033	0.8800	0.9665

7.1.4.2 Inclining Block Tariffs

PricewaterhouseCoopers (PwC) was engaged to undertake a review and analysis of the likely need for, and effectiveness of, Inclining Block Tariffs (IBTs) and Volumetric Sewerage Charges (VSCs). The review also considered alternative demand management approaches that could meet the goals and objectives of IBTs and VSCs.

Among other things, the analysis concluded:

"SGW's customer base is somewhat unique in that in some localities the population is quite seasonal, due to the region's popularity as a summer holiday destination. Average consumption across SGW's jurisdiction in general, and in these seasonal locations in particular, is low compared to the state and regional average. Setting IBTs or VSCs that account for this low and diverse consumption is problematic……."

"SGW's customer base also contains a rather significant non-residential component, including a number of major users. It is unlikely that the implementation of IBTs or VSCs alone would result in the desired impact on overall consumption. The other strategies presented in this review, such as schemes to reduce major user consumption, behavioural change campaigns…….would ideally form part of a multi-faceted demand management strategy."

Regarding the application of inclining block tariffs to non-residential customers, South Gippsland Water shares the ESC's stated concern (March 2008 Water Price Review Guidance Paper) that this may not be the most effective means of providing price based incentives to non-residential customers about the sustainable use of water. This is due to the complexities of assessing non-discretionary consumption across a diverse range of business entities.

As a result, South Gippsland Water has decided not to implement IBT into its tariff water principles.

Rather it sees more merit in increasing the revenue collected from the volumetric component relative to fixed.

7.1.4.3 Proposed tariffs

Table 7.1(c) details the current and proposed prices (in real terms) over the five years of the Water Plan.

Table 7.1(c) Current and proposed retail water tariffs (real)

Tariff and Price Component *$, 1/1/07*	*Price (1 July 2007)*	*Price (1 July 2008)*	*% Var'n*	*Price (1 July 2009)*	*% Var'n*	*Price (1 July 2010)*	*% Var'n*	*Price (1 July 2011)*	*% Var'n*	*Price (1 July 2012)*	*% Var'n*
1.1 Water access fees (per annum)											
East/West District											
Access fee – Developed	199.88	210.50	5.3%	221.69	5.3%	233.47	5.3%	244.74	4.8%	255.84	4.5%
Access fee – Undeveloped	199.88	210.50	5.3%	221.69	5.3%	233.47	5.3%	244.74	4.8%	255.84	4.5%
Access fee – Agreements	181.72	191.38	5.3%	201.55	5.3%	212.26	5.3%	222.51	4.8%	232.60	4.5%
Access fee – Concessional	168.69	177.66	5.3%	187.10	5.3%	197.04	5.3%	206.55	4.8%	215.92	4.5%
Southern District											
Access fee – Developed	278.08	279.03	0.3%	280.25	0.4%	281.48	0.4%	283.26	0.6%	285.89	0.9%
Access fee – Undeveloped	278.08	279.03	0.3%	280.25	0.4%	281.48	0.4%	283.26	0.6%	285.89	0.9%
Access fee – Agreements	249.81	250.67	0.3%	251.77	0.4%	252.87	0.4%	254.48	0.6%	256.83	0.9%
Access fee – Concessional	168.69	169.27	0.3%	170.01	0.4%	170.76	0.4%	171.84	0.6%	173.43	0.9%
1.2 Water usage charges (per kL)											
Volumetric fee – Murray Goulburn	1.1754	1.2734	8.3%	1.3789	8.3%	1.4898	8.0%	1.6068	7.8%	1.7298	7.7%
Volumetric fee – All others	0.9665	1.0470	8.3%	1.1338	8.3%	1.2250	8.0%	1.3212	7.8%	1.4223	7.7%

The above proposed tariffs are annual charges levied each 4 months due 30 September, 31 January and 31 May each year.

7.1.4.4 Long run marginal cost

PricewaterhouseCoopers (PwC) carried out LRMC evaluations on South Gippsland Water's two main systems – Ruby Creek which services Leongatha and Koonwarra, and Lance Creek which services Wonthaggi, Cape Paterson and Inverloch (these two systems comprise over 60% of the water supplied by South Gippsland Water).

The analysis of the Ruby Creek system indicates that LRMC is immaterial. The low LRMC estimates result from the augmentation of the system over the long run by the major non-residential customer, Murray Goulburn achieving significant water use savings. Murray Goulburn is currently responsible for over 60% of water use in the system and through State supported demand management initiatives expects to reduce its water use by up to 70% through a staged process over six years. Theses water savings will free up significant levels of capacity in the system and offset the need for any physical augmentation of the system within the next 25 years.

The relative size of Murray Goulburn's water use and the reliance of the capital programming on its ability to deliver its forecast water savings introduce some unique risks. In the event that Murray Goulburn is unable to deliver water savings, the system will have to be augmented with capital works in order to ensure the supply demand balance is maintained. Scenario analysis of achievable water savings suggest that private LRMC may increase to $1.40 per kL in the event that Murray Goulburn is not able to deliver its second stage water savings. Taking into consideration environmental and social cost the full social LRMC will most probably exceed $1.40 per kL.

The marginal cost story is very different when viewed from a short term basis. While Murray Goulburn's demand savings will begin in 2008, supply demand balance for the bulk of the forthcoming regulatory period is still reliant on the imposition of user restrictions on both residential and non-

residential customers. It is reasonable to assume that in the absence of these restrictions the short run marginal cost would be quite significant.

Given the short run situation and the risks associated with the long run augmentation strategy, South Gippsland Water is proposing to maintain its variable charge for residential and non-residential users around the current levels. It is proposed that the variable charge (per kL) will escalate over the Water Plan Period from the existing $0.9665 to $1.0470 in 2008 and reaching $1.422 in 2012.

The Lance Creek system has significant excess capacity. Demand would need to be perturbed by around 10% to get a breach in the demand supply balance. A 10% perturbation is clearly not indicative of a marginal increase in water demand. Even when perturbed the breach occurs towards the end of the period, meaning the associated costs are discounted significantly resulting in an immaterial LRMC.

However, this system has experienced short term issues in maintaining the supply demand balance with Level 4 restrictions applying since January 2007. This short run issue together with the desire for consistent tariff structures for all South Gippsland Water customers means that tariff structures will reflect the most stressed system, rather than the least stressed.

7.1.4.5 Sustainable water use

Given South Gippsland Water's relatively low proportion of revenue collected from volumetric water tariffs, the proposed conservative increase in the volumetric component of revenue from water and wastewater services (approximately 1% p.a.) is deemed responsible from a customer impact point and appropriate in ensuring that customers are provided with efficient signals about the costs of providing services and incentives for sustainable water use.

7.1.4.6 Impacts on customers

Based on quantitative 2005/06 consumption data, together with the proposed prices for the next regulatory period and high level assumptions regarding growth in demand, PricewaterhouseCoopers (PwC) was engaged to conduct a review of the impact of the new tariffs on a number of customer groups.

The analysis focused on domestic and non-domestic customers, who comprise 94% of South Gippsland Water's customers. Within the domestic customer group, PwC separately analysed the impact on vulnerable customers (deemed to be those customers in possession of a concession card) and tenants.

Among other things, the analysis concluded:

"SGW's customer base, on average, uses less water than most other jurisdictions within Victoria……This low consumption is the reason that the results of the analysis indicate that most customers are better off under

SGW's proposed prices than they would be if the current relationship between fixed and variable was maintained.

This result means that the burden for meeting SGW's revenue requirement shifts partly to the minority of customers who are using a high volume of water, both for domestic and non-domestic customers. SGW's proposed tariffs are set, however, to ensure that for most customers, regardless of the level of water used, the difference in annual bill between the two scenarios is not more than 3% (nominal for the each year of the increases).

This outcome seems to satisfy the WIRO principles that water prices both protect the interests of customers, including low income and vulnerable customers, whilst sending signals about need for using water in a way that is sustainable.

The most impacted customers will be:

- Customers in the East/West district as the convergence to a uniform rate is implemented, however, even at the end of the Water Plan period they are around $30.00 (in real terms) better off than Southern customers.
- Tenants (whom pay only the volumetric component of water tariffs) and large water users (where the service charge comprises a relatively minor component of their account). These customers will experience increases in the order of 8% real p.a.

The paper found that under South Gippsland Water's proposed re-balancing, concession card holders as a group, will, on average, experience higher percentage annual bill increases than typical domestic customers. Further, concession card holders who are also tenants will experience even higher bill increases as a result of the proposed tariff re-balancing because they do not receive an offsetting relative decrease in the fixed charge (approximately 8% p.a.). About 875 South Gippsland Water customers fall into this category. This impact is lessened to some degree by the current Victorian Government initiative whereby tenants holding a concession card receive a rebate of 50% of their water usage bill up to $79.25 p.a..

However, South Gippsland Water intends to undertake a proactive approach to alleviating hardship of vulnerable customers who are affected by the proposed price structure. Based on its customer information, South Gippsland Water intends to identify its most vulnerable customers and directly contact these customers to outline the avenues available for assistance if needed. This will include the 875 customers who are both tenants and concession card holders, particularly those whose use exceeds the maximum rebate amount, as well as concession card holders who are high water use customers.

Average increases by customer demographic have been prepared and are detailed in Table 7.1(d) below. The average water consumption is that recorded for 2006/07.

Table 7.1(d) Average Increases (real) by Customer Demographic - Water

YEAR	Residential				Non-residential							
	East/West		Southern		East/West				Southern			
	General	Vacant	General	Vacant	General	Vacant	Agreement	Concessional	General	Vacant	Agreement	Concessional
Average useage (kL's)	141	52	122	49	409	167	1,179	293	324	5	1,880	597
2007/08												
Tariff	$ 336.15	$ 250.14	$ 395.98	$ 325.43	$ 595.16	$ 361.28	$ 1,321.18	$ 451.86	$ 591.21	$ 282.91	$ 2,066.76	$ 745.67
2008/09												
Tariff	$ 358.14	$ 264.95	$ 406.76	$ 330.33	$ 638.74	$ 385.36	$ 1,425.84	$ 484.44	$ 618.27	$ 284.26	$ 2,219.10	$ 794.35
$ var'n	$ 21.98	$ 14.81	$ 10.78	$ 4.90	$ 43.58	$ 24.08	$ 104.66	$ 32.57	$ 27.06	$ 1.35	$ 152.34	$ 48.68
% var'n	6.5%	5.9%	2.7%	1.5%	7.3%	6.7%	7.9%	7.2%	4.6%	0.5%	7.4%	6.5%
2009/10												
Tariff	$ 381.56	$ 280.65	$ 418.58	$ 335.81	$ 685.42	$ 411.04	$ 1,538.33	$ 519.31	$ 647.61	$ 285.92	$ 2,383.35	$ 846.90
$ var'n	$ 23.42	$ 15.70	$ 11.81	$ 5.48	$ 46.68	$ 25.68	$ 112.49	$ 34.87	$ 29.34	$ 1.66	$ 164.26	$ 52.55
% var'n	6.5%	5.9%	2.9%	1.7%	7.3%	6.7%	7.9%	7.2%	4.7%	0.6%	7.4%	6.6%
2010/11												
Tariff	$ 406.20	$ 297.17	$ 430.93	$ 341.51	$ 734.51	$ 438.05	$ 1,656.58	$ 555.98	$ 678.39	$ 287.60	$ 2,555.94	$ 902.10
$ var'n	$ 24.64	$ 16.52	$ 12.36	$ 5.70	$ 49.09	$ 27.01	$ 118.25	$ 36.67	$ 30.78	$ 1.69	$ 172.59	$ 55.20
% var'n	6.5%	5.9%	3.0%	1.7%	7.2%	6.6%	7.7%	7.1%	4.8%	0.6%	7.2%	6.5%
2011/12												
Tariff	$ 431.03	$ 313.44	$ 444.45	$ 348.00	$ 785.11	$ 465.38	$ 1,780.20	$ 593.66	$ 711.33	$ 289.87	$ 2,738.33	$ 960.59
$ var'n	$ 24.83	$ 16.27	$ 13.52	$ 6.50	$ 50.60	$ 27.33	$ 123.62	$ 37.69	$ 32.94	$ 2.26	$ 182.39	$ 58.49
% var'n	6.1%	5.5%	3.1%	1.9%	6.9%	6.2%	7.5%	6.8%	4.9%	0.8%	7.1%	6.5%
2012/13												
Tariff	$ 456.39	$ 329.80	$ 459.41	$ 355.58	$ 837.57	$ 493.37	$ 1,909.53	$ 632.66	$ 746.72	$ 293.00	$ 2,930.82	$ 1,022.56
$ var'n	$ 25.36	$ 16.36	$ 14.96	$ 7.58	$ 52.46	$ 27.99	$ 129.33	$ 39.00	$ 35.39	$ 3.13	$ 192.49	$ 61.97
% var'n	5.9%	5.2%	3.4%	2.2%	6.7%	6.0%	7.3%	6.6%	5.0%	1.1%	7.0%	6.5%
Total 5 Year Cummulative												
Tariff	$ 456.39	$ 329.80	$ 459.41	$ 355.58	$ 837.57	$ 493.37	$ 1,909.53	$ 632.66	$ 746.72	$ 293.00	$ 2,930.82	$ 1,022.56
$ var'n	$ 120.24	$ 79.66	$ 63.43	$ 30.15	$ 242.41	$ 132.09	$ 588.35	$ 180.80	$ 155.52	$ 10.09	$ 864.06	$ 276.90
% var'n	35.8%	31.8%	16.0%	9.3%	40.7%	36.6%	44.5%	40.0%	26.3%	3.6%	41.8%	37.1%

7.1.4.7 Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

Details of customer consultation on water pricing was detailed in section 4.3 which found that customers were generally in favour of a review of pricing with a preference for lower service charges. Comments and preferences when compared to implementation of IBT's included:

- customers preferred the proposed scenario as it is a "user pays" method, and covers businesses and other large water users, although there were some concerns that it may be unfair for large families and low income earners; and
- from a customer viewpoint the preferred method of pricing must ensure that that larger commercial users pay accordingly.

7.1.4.8 Retail water - summary

South Gippsland Water believes that the proposed retail water tariff structure achieves a number of the pricing objectives discussed earlier. That is, that prices are:

- easily understandable and easy to administer;
- subject to a relatively uniform price rise each year over the regulatory period;
- able to encourage sustainable water practises through the volumetric component of the water charge; and
- set such as to reduce pricing on an individual locality basis, which could be deemed as unfair by some customers.

7.1.5. Retail sewerage tariff proposal

7.1.5.1 Background

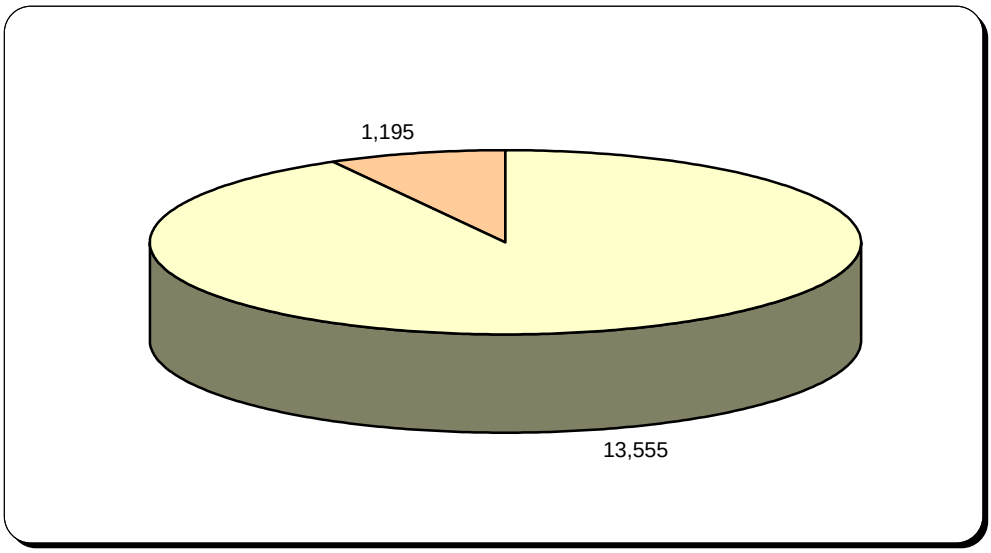
South Gippsland Water's wastewater customers can be categorised into two broad categories:

Residential
A residential property is defined as a property that is provided for domestic purposes and includes houses, flats, units, townhouses, rural residences, police dwellings, retirement villages or any other properties that have similar water behaviour to a "House"

This includes vacant land (undeveloped) serviced by a water main and receiving a bill.

Non-residential
Non-residential properties include all other buildings or vacant land (undeveloped) not defined as "residential". Generally, this would include properties that have been established for some commercial reason.

Graph 7.1(c) South Gippsland Water properties by customer type



As is evident by the above figure, domestic customers comprise the vast majority (92%) of the total number of properties.

South Gippsland Water's current wastewater tariff structure, unlike water, is uniform across the region. It is a one-part tariff, i.e. it consists of a flat service charge with no volumetric component.

Table 7.1(e) Historical and current retail sewerage tariffs (real)

Tariff and Price Component	*Price*	*Price*	*Price*	*Price*
$, 1/1/07	*(1 July 2004)*	*(1 July 2005)*	*(1 July 2006)*	*(1 July 2007)*
1.3 Sewerage tariff				
residential and non-residential (per annum)				
Access fee – Developed	304.54	327.64	335.85	344.26
Access fee – Undeveloped	178.83	192.32	197.10	202.08

7.1.5.2 Volumetric Sewerage Charges

PricewaterhouseCoopers (PwC) was engaged to undertake a review and analysis of the likely need for, and effectiveness of, Volumetric Sewerage Charges (VSCs).

Among other things, the analysis concluded:

"SGW's customer base is somewhat unique in that in some localities the population is quite seasonal, due to the region's popularity as a summer holiday destination. Average consumption across SGW's jurisdiction in general, and in these seasonal locations in particular, is low compared to the state and regional average. Setting IBTs or VSCs that account for this low and diverse consumption is problematic……."

"SGW's customer base also contains a rather significant non-residential component, including a number of major users. It is unlikely that the implementation of IBTs or VSCs alone would result in the desired impact on overall consumption. The other strategies presented in this review, such as schemes to reduce major user consumption, behavioural change

campaigns…….would ideally form part of a multi-faceted demand management strategy."

Regarding the application of VSC's, South Gippsland Water has the following concerns:

- As sewerage is not metered, water consumption is used as a proxy for the amount of sewerage discharged by an individual property. This arguably provides little nexus between the use of the service and charging. This is still true even if discharge factors were utilised to make allowance for outside use of metered water.
- The concept of charging for sewerage volumes is complex and not one customer's are likely to embrace.
- Charging for water in (via the water volumetric tariff) and water out (via a VSC) could evoke a perception of being charged twice for the same product.

7.1.5.3 Proposed tariffs

South Gippsland Water's proposed tariff structure for retail sewerage continues its stated aims of addressing a cross subsidy situation between water and wastewater services.

The following Table 7.1(f) details the current and proposed prices (in real terms) over the five years of the Water Plan.

Table 7.1(f) Current and proposed retail sewerage tariffs (real)

Tariff and Price Component	*Price*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*
$, 1/1/07	*(1 July 2007)*	*(1 July 2008)*	*Var'n*	*(1 July 2009)*	*Var'n*	*(1 July 2010)*	*Var'n*	*(1 July 2011)*	*Var'n*	*(1 July 2012)*	*Var'n*
1.3 Sewerage access fees (per annum)											
Residential and non-residential											
Access fee – Developed	344.26	350.14	1.7%	356.11	1.7%	362.19	1.7%	368.37	1.7%	374.66	1.7%
Access fee – Undeveloped	202.08	205.53	1.7%	209.03	1.7%	212.60	1.7%	216.23	1.7%	219.92	1.7%

The above tariffs are annual charges levied each 4 months due 30 September, 31 January and 31 May each year.

7.1.5.4 Long run marginal cost

South Gippsland Water has not provided any LRMC information in this document. Its proposal to increase the service charge is not significant, i.e. around 1.7% p.a.

7.1.5.5 Sustainable water use

While VSC's would certainly reinforce signals about incentives for sustainable water use, South Gippsland Water believes this message is best achieved via the water volumetric charges where disputes about the nexus between tariffs and service provision is clear.

7.1.5.6 Impacts on customers

Due to the relative simplicity of a one-part wastewater tariff, the customer impacts of the new tariffs are straight forward.

Under the proposed tariffs, wastewater customers will receive a modest 1.7% real increase p.a., a total of 8.8% over the regulatory period.

For the majority of South Gippsland Water's customers (94%) who are on a developed service charge, this will result in a $24.52 real increase over the five years of the Water Plan. The increase is less than $15.00 (real) for all other wastewater customers.

The bulk of South Gippsland Water customers pay for both water and wastewater services, therefore, the relatively low real increases to retail sewerage service charges helps offset the higher increases to water services.

Approximately 1,900 tenants will not be impacted by the increases as landlords are responsible for payment of wastewater service charges.

However, South Gippsland Water intends to undertake a proactive approach to alleviating hardship of vulnerable customers who are affected by the proposed price structure. Based on its customer information, South Gippsland Water intends to identify its most vulnerable customers and directly contact these customers to outline the avenues available for assistance if needed. This will include the 5,700 customers who are concession card holders, particularly those who are high water use customers.

7.1.5.7 Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

Details of customer consultation on wastewater pricing were detailed in section 4.3 which found that customers were generally in favour of a review of pricing. Comments and preferences included:

- It was seen as a chance to remove the charge on undeveloped properties;
- To incorporate incentives to encourage recycling of wastewater into the charge; and
- A chance to consider a volume based charge for the removal of wastewater.

7.1.5.8 Retail sewerage - summary

South Gippsland Water believes that the proposed retail sewerage tariff structure achieves a number of the pricing objectives discussed earlier. That is prices are:

- easily understandable and easy to administer; and
- subject to a relatively modest price rise each year over the regulatory period;

7.1.6. Summary of retail water/wastewater tariff increases

Table 7.1(g) below details the average real increase in tariffs by combined water and wastewater customer demographic.

The modest wastewater tariff increases moderate the more aggressive water tariff increases such that over the five year regulatory period:

- General residential East/West customers experience a $150.63 (22.1%) real increase in their average bill;
- General residential Southern customers experience a $93.82 (12.7%) real increase in their average bill;
- General non-residential East/West customers experience a $272.81 (29.0%) real increase in their average bill;
- General non-residential Southern customers experience a $185.91 (19.9%) real increase in their average bill;

The key drivers in the average bill are the higher increases to the East/West customers and to the volumetric rate.

Table 7.1(g) Average Increases (real) by Customer Demographic – Combined Water and Wastewater

YEAR	Residential				Non-residential							
	East/West		Southern		East/West				Southern			
	General	Vacant	General	Vacant	General	Vacant	Agreement	Concessional	General	Vacant	Agreement	Concessional
Average useage (kL's)	141	52	122	49	409	167	1,179	293	324	5	1,880	597
2007/08												
Tariff	$ 680.42	$ 452.21	$ 740.25	$ 527.51	$ 939.43	$ 563.36	$ 1,665.44	$ 796.13	$ 935.47	$ 484.99	$ 2,411.02	$ 1,089.93
2008/09												
Tariff	$ 708.28	$ 470.48	$ 756.90	$ 535.86	$ 988.88	$ 590.89	$ 1,775.98	$ 834.58	$ 968.40	$ 489.79	$ 2,569.24	$ 1,144.49
$ var'n	$ 27.86	$ 18.26	$ 16.65	$ 8.35	$ 49.45	$ 27.53	$ 110.53	$ 38.45	$ 32.93	$ 4.80	$ 158.21	$ 54.56
% var'n	4.1%	4.0%	2.2%	1.6%	5.3%	4.9%	6.6%	4.8%	3.5%	1.0%	6.6%	5.0%
2009/10												
Tariff	$ 737.67	$ 489.68	$ 774.69	$ 544.84	$ 1,041.54	$ 620.07	$ 1,894.44	$ 875.42	$ 1,003.72	$ 494.95	$ 2,739.47	$ 1,203.02
$ var'n	$ 29.40	$ 19.21	$ 17.79	$ 8.98	$ 52.66	$ 29.19	$ 118.47	$ 40.84	$ 35.32	$ 5.17	$ 170.23	$ 58.53
% var'n	4.2%	4.1%	2.4%	1.7%	5.3%	4.9%	6.7%	4.9%	3.6%	1.1%	6.6%	5.1%
2010/11												
Tariff	$ 768.39	$ 509.78	$ 793.13	$ 554.11	$ 1,096.70	$ 650.65	$ 2,018.77	$ 918.17	$ 1,040.58	$ 500.21	$ 2,918.13	$ 1,264.29
$ var'n	$ 30.72	$ 20.09	$ 18.43	$ 9.27	$ 55.17	$ 30.58	$ 124.33	$ 42.75	$ 36.86	$ 5.25	$ 178.66	$ 61.28
% var'n	4.2%	4.1%	2.4%	1.7%	5.3%	4.9%	6.6%	4.9%	3.7%	1.1%	6.5%	5.1%
2011/12												
Tariff	$ 799.40	$ 529.67	$ 812.82	$ 564.23	$ 1,153.48	$ 681.61	$ 2,148.57	$ 962.04	$ 1,079.70	$ 506.10	$ 3,106.70	$ 1,328.97
$ var'n	$ 31.01	$ 19.90	$ 19.70	$ 10.12	$ 56.78	$ 30.96	$ 129.80	$ 43.87	$ 39.12	$ 5.89	$ 188.57	$ 64.67
% var'n	4.0%	3.9%	2.5%	1.8%	5.2%	4.8%	6.4%	4.8%	3.8%	1.2%	6.5%	5.1%
2012/13												
Tariff	$ 831.05	$ 549.72	$ 834.07	$ 575.50	$ 1,212.23	$ 713.29	$ 2,284.19	$ 1,007.32	$ 1,121.38	$ 512.92	$ 3,305.48	$ 1,397.22
$ var'n	$ 31.64	-$ 529.67	$ 21.25	$ 11.27	$ 58.75	$ 31.68	$ 135.61	$ 45.28	$ 41.68	$ 6.82	$ 198.78	$ 68.26
% var'n	4.0%	-100.0%	2.6%	2.0%	5.1%	4.6%	6.3%	4.7%	3.9%	1.3%	6.4%	5.1%
Total 5 Year Cummulative												
Tariff	$ 831.05	$ 549.72	$ 834.07	$ 575.50	$ 1,212.23	$ 713.29	$ 2,284.19	$ 1,007.32	$ 1,121.38	$ 512.92	$ 3,305.48	$ 1,397.22
$ var'n	$ 150.63	$ 97.50	$ 93.82	$ 47.99	$ 272.81	$ 149.93	$ 618.75	$ 211.19	$ 185.91	$ 27.93	$ 894.46	$ 307.29
% var'n	22.1%	21.6%	12.7%	9.1%	29.0%	26.6%	37.2%	26.5%	19.9%	5.8%	37.1%	28.2%

7.1.7. Recycled water tariff proposal

7.1.7.1 Background

A re-examination of the potential for recycling/reuse of treated wastewater has verified that the relatively small industrial base in South Gippsland offers few practical opportunities for recycling of treated wastewater to industry and that crop types are not well-suited for irrigation with reclaimed water. Irrigation of pasture and fodder crops is feasible, however, the relatively low volumes of treated effluent available, the number of prospective customers wanting the resource and the distances involved, more often than not, make agricultural application impractical.

That said, all of the treated wastewater from South Gippsland Water's Tarraville wastewater treatment plant continues to be provided to an adjacent property owner for pasture irrigation and a grazier in Cape Paterson uses a portion of the treated wastewater from the Inverloch wastewater system to supplement his irrigation water supply. Contracts with these parties involve minor amounts and have been in operation prior to regulation by the ESC. The amount of revenue recovered from the two recycled water contract customers was $3,000 in 2006/07.

South Gippsland Water will continue to look for opportunities to establish wastewater reuse schemes where beneficial and cost-effective outcomes can be assured.

Recycled Water pricing principles were set under the 2005 pricing determination as follows:

> Recycled water prices should be set so as to:
>
> - Maximise revenue earned from recycled water services having regard to the price of any alternative substitutes and customer willingness to pay;
> - Cover the full cost of providing the service; and
> - Include a variable component

7.1.7.2 Proposed tariffs

South Gippsland Water proposes to adopt the approach outlined in the 2008 Water Price Review Guidance Paper (March 2007) for the regulation of recycled water services.

PRICING PROPOSED

1. Where recycled water services are provided through third pipe systems to residential customers, via the annual approval, as is the practice for water and sewerage services.
2. Where recycled water services are provided to large non-residential or unique (one-off) customers, via the pricing principles approach to regulation and set so as to:
    - have regard to the price of any alternative substitutes and customers' willingness to pay;
    - cover the full cost of providing the service (with the exception of services related to specified obligations or maintaining balance of supply and demand); and
    - include a variable component.

It should be noted that the second principle has been amended to reflect the potential imposition by Government of obligations related to recycled water to non-metropolitan businesses. This principle also recognises the ongoing pressure to maintain a balance between supply and demand by the current drought.

The tariffs/principles would be applied as required from time to time.

7.1.7.3 Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

7.1.8. Customer contributions tariff proposal

7.1.8.1 Background

Water businesses have the ability to require new and existing customers to make an upfront contribution to the costs of connecting to the existing water and sewerage networks.

During the last pricing determination, the ESC imposed a cap on customer contributions of $500 per lot for water and $500 per lot for wastewater. At any time during the regulatory period, South Gippsland Water was able to seek the ESC's approval to levy a charge greater than the scheduled charge. Any variance to the $500 charge was to be calculated on the basis of the development-specific capital costs associated with connecting a customer or group of customers.

7.1.8.2 Proposed tariffs

South Gippsland Water proposes to adopt the industry approach put forward by the Victorian Water Industry Association.

PROPOSED PRICING

A standard schedule of charges, detailed below, scaled according to the water-sensitivity of particular developments and the demand for future infrastructure.

a) Where a NCC is to be applied, a charge of $550.00 per lot per new service for water, sewerage and dual pipe water (total for the three services is $1,650.00 per lot) for developments which 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.

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 – i.e. $514.91 per apartment.
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 for water and sewerage and dual pipe (total $3,300.00 per lot) applies to urban developments which will require further investment in infrastructure to serve these developments.

These developments are typically:

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

c) A charge of $2,200.00 per lot per service for water, sewerage and dual pipe (total $6,600.00 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 which 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 outlined in 1a) 1b) and 1c) (per lot for water, sewerage and dual pipe), 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.

7.1.8.3 Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

7.1.9. Trade Waste

7.1.9.1 Background

Presently South Gippsland Water have only a handful of trade waste dischargers who operate under a Trade Waste Agreement to discharge into the sewerage system for treatment at one of South Gippsland Water's Sewage Treatment Plants (STP). These are typically large dischargers such as dairy products manufacturers. Other minor trade waste discharges are being charged under either the Corporation's cisterns tariff structure or as general non-residential sewerage customers.

Major trade waste customers are those whose discharges have the potential to create a significant impact on a wastewater collection, treatment or disposal system. South Gippsland Water has Trade Waste Agreements with four customers.

The Trade Waste Agreements set maximum discharge limits for nominated attributes of the trade waste stream. These limits are based on the capacity and treatment potential of the specific treatment plant to which the customer discharges.

The agreements set financial penalties for customers who exceed their discharge limits (determined as multiples of the base charges). There are also negotiated excess limits based on the impact of the discharge on the specific treatment plant.

7.1.9.2 Proposed tariffs

A need to identify and manage minor trade waste customers has been identified consistent with the draft recommendations of the Trade Waste Review conducted by DSE.

The Hatler Group prepared a report "Justification of Trade Waste Charges for South Gippsland Water – Submission to the ESC Water Plan" detailing the need for and the basis of a trade waste pricing structure consistent with ESC principles. Hatler helped establish an appropriate set of criteria for categorising trade waste customers for their effective management. A three category classification was agreed. The categories are based on waste quantity and quality.

Determination of an applicable discharge category may be made by negotiated agreement or by measurement of the discharge quantity and quality. It may also be based on whether or not the discharge source is considered a high polluting industry. The tariff structure will include application charges, service fees, volume charges, quality charges,

additional sampling charges and exceedence charges. This structure is consistent with industry best practice.

Trade Waste Application Charges have been established based on the time taken for one person to process a Trade Waste Application and produce a Trade Waste Agreement. As the charging categories increase, the time taken to process the Trade Waste Application also increases

The Trade Waste Service Fees are included in the Trade Waste Charges to recover the ongoing costs of managing and monitoring Trade Waste Agreements. They are applied as an annual charge and can be billed quarterly if necessary. The Service fees increase incrementally with the Charging Category applied to the Trade Waste customer which is determined by the nature of the trade waste discharge.

Volume charges have been established based on the average volume of trade waste discharged to South Gippsland Water's various sewerage systems as a percentage of the total volume of sewerage and the costs incurred by South Gippsland Water for transporting and treating these trade wastes.

The charges applied to trade waste customers for the quality or the pollution load of their trade waste discharge has been calculated by using the total loads of four key quality parameters that are treated in South Gippsland Water's biological STP's and are typically significantly contributed to by trade waste discharges.

Non-compliance sampling is required when a trade waste discharge is measured through audit or customer monitoring to be outside the accepted trade waste standards for a parameter. A non-compliant sample triggers a procedure for increased risk management of the trade waste discharge and usually requires additional sampling until the trade waste discharge is compliant.

Trade waste exceedence charges are an extension to the non-compliance charge for sampling, but ensure the cost recovery of the additional treatment required at the treatment plant and or the cost impacts resulting from the parameter being untreatable in a biological treatment plant and impacting on the ability to reuse treated waste water for other purposes, such as land application or bio-solids removal. Additionally, they provide an incentive for trade waste dischargers to comply with the trade waste limits and encourage waste minimisation and improved waste quality.

The following Table 7.1(h) details the proposed prices (in real terms) for minor trade waste customers over the five years of the Water Plan.

Table 7.1(h) Proposed minor trade waste tariffs (real)

Tariff and Price Component *$, 1/1/07*	*Price (1 July 2007)*	*Price (1 July 2008)*	*% Var'n*	*Price (1 July 2009)*	*% Var'n*	*Price (1 July 2010)*	*% Var'n*	*Price (1 July 2011)*	*% Var'n*	*Price (1 July 2012)*	*% Var'n*
1.5 Minor trade waste fees											
Application fees (per application)											
Category 1	n/a	94.04	n/a	94.04	0.0%	94.04	0.0%	94.04	0.0%	94.04	0.0%
Category 2	n/a	149.84	n/a	149.84	0.0%	149.84	0.0%	149.84	0.0%	149.84	0.0%
Category 3	n/a	274.71	n/a	274.71	0.0%	274.71	0.0%	274.71	0.0%	274.71	0.0%
Access fees (per annum)											
Access fee – Category 1	n/a	298.05	n/a	339.78	14.0%	387.35	14.0%	441.57	14.0%	503.39	14.0%
Access fee – Category 2	n/a	395.79	n/a	451.20	14.0%	514.37	14.0%	586.38	14.0%	668.47	14.0%
Access fee – Category 3	n/a	491.04	n/a	559.79	14.0%	638.16	14.0%	727.50	14.0%	829.35	14.0%
Volumetric fees (per kL)											
All Categories	n/a	0.4000	n/a	0.4500	12.5%	0.5200	15.6%	0.5900	13.5%	0.6700	13.6%
Quality fees (per kg)											
BOD	n/a	0.3100	n/a	0.3500	12.9%	0.4000	14.3%	0.4600	15.0%	0.5200	13.0%
SS	n/a	0.2900	n/a	0.3300	13.8%	0.3800	15.2%	0.4300	13.2%	0.4900	14.0%
Nitogen	n/a	1.2900	n/a	1.4800	14.7%	1.6800	13.5%	1.9200	14.3%	2.1900	14.1%
Phosphorus	n/a	7.3800	n/a	8.4100	14.0%	9.5900	14.0%	10.9300	14.0%	12.4600	14.0%
Additional sampling (per sample)											
All Categories	n/a	Actual Cost	0.0%	Actual Cost	0.0%	Actual Cost	0.0%	Actual Cost	0.0%	Actual Cost	0.0%
Exceedence fees (per kg)											
Oil & Grease	n/a	0.0800	n/a	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%
Sodium	n/a	0.0800	n/a	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%
TOS	n/a	0.5600	n/a	0.5600	0.0%	0.5600	0.0%	0.5600	0.0%	0.5600	0.0%

The above tariffs are annual charges levied each 4 months due 30 September, 31 January and 31 May each year.

Major trade waste agreements are to be negotiated as required utilising the following pricing principles.

MAJOR TRADE WASTE PRICING PROPOSED

Prices will be set as follows:

- Variable prices (including, load-based charges) should reflect the LRMC of providing services (including, in the case of trade waste customers, trade waste transfer, treatment and disposal)
- The total revenue received from each customer should be greater than the cost that would be avoided from ceasing to serve that customer, and (subject to meeting avoidable cost) less than the stand alone cost of providing the service to the customer in the most efficient manner
- The methodology used to allocate common and fixed costs to that customer should be clearly articulated and be consistent with any guidance provided by the Commission
- Prices should reflect reasonable assumptions regarding the customer's demand for services, (including, in the case of trade waste customers, the volume and strength of trade waste anticipated to be produced by that customer)
- Depreciation rates and rates of return used to determine prices should be consistent with those adopted by the Commission for the purpose of making this Determination
- Customers should be provided with full details of the manner in which prices have been calculated and any contractual agreements with customers should indicate that the prices to apply from 1 July 2008 are subject to any Determination made by the Commission
- Where applying these principles results in significant changes to prices or tariff structures, arrangements for phasing in the changes may be considered any transitional arrangements should be clearly articulated.

7.1.9.3 Long run marginal cost

South Gippsland Water has not provided any LRMC information in this document.

7.1.9.4 Sustainable water use

South Gippsland Water believes that the proposed minor trade waste tariff structure and the use of separate agreements for major trade waste customers provides efficient signals about the costs of providing services and incentives for sustainable water use.

7.1.9.5 Impacts on customers

Customers will experience varying degrees of increases/decreases on implementation of the new structure as they are moved from cistern customers or the general non-residential tariff to the three category minor trade waste structure. Agreements for major trade waste customers are subject to individual contract conditions.

It is propose to soften the impact on customers moving to minor trade waste tariffs by easing the full increase over the five years of the regulatory period as detailed in Table 7.1(h) above.

7.1.9.6 Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

7.1.10. Cisterns

7.1.10.1 Background

Cistern customers are typically non-domestic sewerage customers whom have higher volume loads on the wastewater system due to either the number of black water facilities or by the nature of their use.

Businesses such as sporting, tourism, education, and hospitals, etc. are charged under a cistern based framework where a service charge applies based on the number of cisterns together with a volumetric charge (per kL of water consumption), which is tiered between 0 to 80% depending on assessment demographics.

Table 7.1(i) Historical and current cistern tariffs (real)

Tariff and Price Component *$, 1/1/07*	*Price* *(1 July 2004)*	*Price* *(1 July 2005)*	*Price* *(1 July 2006)*	*Price* *(1 July 2007)*
1.4 Cistern access fees (per annum)				
1-2 Cisterns	100.25	106.12	108.75	111.58
3-5 Cisterns	263.90	279.29	286.50	293.74
6-10 Cisterns	510.25	539.89	553.95	567.87
11-15 Cisterns	816.51	864.29	886.80	908.91
16-20 Cisterns	1,362.04	1,441.87	1,479.30	1,516.32
21-26 Cisterns	1,949.77	2,064.09	2,117.70	2,170.58
27-35 Cisterns	2,389.66	2,529.68	2,595.45	2,660.40
36–Greater Cisterns	2,731.04	2,891.15	2,996.25	3,040.39
Volume Charge – (per kL)				
Volume Charge	0.7063	0.8033	0.8800	0.9665

Volumetric charges are applied to a percentage of metered water use. The percentage varies based on the activity of the customer as follows:

- Business, Community Services, Education, Religious, Dwelling 80%
- Tourism, Hospitals 55%
- Sporting 30%

7.1.10.2 Proposed tariffs

The following Table 7.1(j) details the current and proposed prices (in real terms) for cistern customers over the five years of the Water Plan. Service charge Increases are relatively modest at 1.7% p.a.

Table 7.1(j) Current and proposed cistern tariffs (real)

Tariff and Price Component	*Price*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*
$, 1/1/07	*(1 July 2007)*	*(1 July 2008)*	*Var'n*	*(1 July 2009)*	*Var'n*	*(1 July 2010)*	*Var'n*	*(1 July 2011)*	*Var'n*	*(1 July 2012)*	*Var'n*
1.4 Cistern access fees (per annum)											
1-2 Cisterns	111.58	113.48	1.7%	115.41	1.7%	117.37	1.7%	119.37	1.7%	121.39	1.7%
3-5 Cisterns	293.74	298.74	1.7%	303.82	1.7%	308.98	1.7%	314.23	1.7%	319.58	1.7%
6-10 Cisterns	567.87	577.52	1.7%	587.34	1.7%	597.32	1.7%	607.48	1.7%	617.81	1.7%
11-15 Cisterns	908.91	924.36	1.7%	940.08	1.7%	956.06	1.7%	972.31	1.7%	988.84	1.7%
16-20 Cisterns	1,516.32	1,542.09	1.7%	1,568.31	1.7%	1,594.97	1.7%	1,622.08	1.7%	1,649.66	1.7%
21-26 Cisterns	2,170.58	2,207.48	1.7%	2,245.01	1.7%	2,283.17	1.7%	2,321.98	1.7%	2,361.46	1.7%
27-35 Cisterns	2,660.40	2,705.62	1.7%	2,751.62	1.7%	2,798.40	1.7%	2,845.97	1.7%	2,894.35	1.7%
36–Greater Cisterns	3,040.39	3,092.08	1.7%	3,144.64	1.7%	3,198.10	1.7%	3,252.47	1.7%	3,307.76	1.7%
Volume Charge – (per kL)											
Volume Charge	0.9665	1.0470	8.3%	1.1338	8.3%	1.2250	8.0%	1.3212	7.8%	1.4223	7.7%

The above tariffs are annual charges levied each 4 months due 30 September, 31 January and 31 May each year.

7.1.10.3 Long run marginal cost

South Gippsland Water has not provided any LRMC information in this document. Its proposal to increase the service charge is not significant, i.e. around 1.7% p.a.

7.1.10.4 Impacts on customers

Under the proposed tariffs, cistern customers will receive a modest 1.7% real increase p.a., a total of 8.8% over the regulatory period. There were approximately 529 cistern customers that contributed $405,000 of revenue in 2006/07.

7.1.10.5 Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

7.2. Miscellaneous charges

7.2.1. Background

In addition to providing water, sewerage and irrigation, South Gippsland Water also provides other secondary services in connection with its primary prescribed services. These are known as miscellaneous services and are also prescribed services under the WIRO.

In their 2008 water Price Review Guidance Paper (March 2007), the ESC proposed that water businesses identify a core set of miscellaneous services that will be subject to the annual price approval process and subsequently included in the tariff schedule, with the remainder being regulated through pricing principles.

South Gippsland Water agrees with this proposal.

7.2.2. Proposed tariffs

South Gippsland Water has identified the following core miscellaneous services.

Property Information Statements
Fee imposed for providing a certificate issued in accordance with Section 158 of the, Water Act 1989.

$39.05 per application (1/1/07 prices)

Special Meter Readings
Fee imposed for providing a certificate which indicates water usage charges up to a specified date. Generally provided, on application, for property sales.

$20.01 per application (1/1/07 prices)

Administration Developer Fee
Fee charged to cover administration costs for time spent on processing new developer funded applications.

Fee at 6.5% of cost of works excluding GST (1/1/07 prices)

As Constructed Charge
Fee for preparing as constructed asset information from the field then transferring to maps, for both water and sewerage systems.

$53.69 per allotment (1/1/07 prices)

20mm Tapping Fee
Fee imposed for meter and labour associated in providing a tapping to the water main.

$295.79 per tapping (1/1/07 prices)

Plumbing Industry Commission (PIC) Fee
Fee imposed for providing sewer plans and processing applications to connect or modify plumbing.

$166.50 per application (1/1/07 prices)

Standpipe Water Sales
Fee imposed for the sale of water via a metered standpipe.

300% of uniform volumetric rate per kL for registered users, 400% of uniform volumetric rate per kL for unregistered users (1/1/07 prices)

Septic Tank Waste Receival
Fee imposed on septic tank waste carters, for the disposing of sewage and/or other acceptable waste.

$20.00 per kL (1/1/07 prices)

Non-scheduled miscellaneous prices are to be set such that they:

- reflect the direct costs of service provision (including materials and/or costs associated with contractors);
- reflect the internal costs incurred by the water businesses such as labour, transport and general overheads;
- for new miscellaneous services, exclude costs previously accounted for in approved prices; and
- are transparent.

As a principle, South Gippsland Water proposes to recover all direct costs plus a 50% contribution to overheads for the provision of non- scheduled miscellaneous services.

7.2.3. Long run marginal cost

South Gippsland Water has not provided any LRMC information in this document as its proposal is to maintain these tariffs in real terms.

7.2.4. Impacts on customers

Customers of miscellaneous services will not experience any real price increases for the duration of this regulatory period.

7.2.5. Customer consultation

Customer/stakeholder consultation was undertaken in order to gain valuable feedback on issues that went into formulating the key fundamentals of the Draft Water Plan. The resultant broad preferences and specific issues were fed back into the process culminating in this Final Water Plan.

7.3. Form of price control

There are a number of options for approving prices annually, these include a price or revenue cap, whereby a specified price path or level of revenue is fixed for the term of the regulatory period. Under this approach, businesses have an incentive to minimise costs as they are able to retain any benefits for the regulatory period, after which these benefits are passed on to customers in the form of lower prices.

The following are among the different forms of price controls that may be adopted, namely:

- individual price caps;
- tariff basket;
- revenue yield;
- revenue cap; or
- a combination of the above.

South Gippsland Water proposed an Individual Price Caps for the first regulatory period. Under an individual price caps regime, each of the prices approved by the regulator at the commencement of the regulatory period is escalated annually by applying the 'CPI – X' formula, with no rebalancing between prices within the regulatory period. The structure of prices and the manner in which these structures will vary within the regulatory period is proposed by the businesses, and is subject to approval by the regulator at the beginning of the period.

South Gippsland Water also considers individual price caps its preferred form of price control for this Water Plan, as it provides certainty about future prices to customers, and it is administratively simple and relatively easy to understand. The potential volatility in revenue is outweighed by the benefits of price certainty to customers.

7.4. Adjusting prices

7.4.1. Changes in legislative obligations

The water price determinations that are currently in effect allow businesses to recover material increases in expenditure incurred during the current regulatory period due to changes in legislative obligations in the next regulatory period.

Businesses can apply for a pass through of increased expenditure due to changes during the regulatory period of the following:

- changes to all primary Acts and legislative instruments, including regulations;
- changes in taxes (or fees or similar charges) excluding income tax, penalties and interest on taxes, stamp duty, financial institutions duty or similar taxes and levies;
- changes to EPA licence requirements, and
- changes to the Statement of Obligations.

South Gippsland Water does not seek to recover expenditure under changes in legislative obligations.

Further, South Gippsland Water supports the existing end of regulatory period pass through approach.

7.4.2. Unforeseen events

The Commission currently has flexibility to amend a price determination if it considers it desirable or necessary to avoid an unintended consequence of the determination.

South Gippsland Water considers that there will need to be a number of mechanisms to deal with uncertainty, including:

- re-opening of the determinations triggered by particular materiality thresholds or
- triggers
- predetermined pass throughs
- forms of price control and
- mid period reviews.

South Gippsland Water's most likely areas of uncertainty relate to:

- costs of provision of water supplies under reduced rainfall scenarios;
- major customer demand adjustments in response to uncertainty of supply; and
- effects of the recently announced $3.1 billion desalination project proposed for the Wonthaggi region.

While South Gippsland Water would endeavour to take all appropriate steps to minimise the impact of a major event and ensure that expenditure to manage the event is efficient, it favours a review as the key method in ensuring that it can deal with unforeseen events in order to remain financially viable.

With respect to the proposed desalination plant which may include connection and capacity fees, significant new pipe networks, revised operating processes, etc., South Gippsland Water proposes the reopening of the determination if sufficient progress of works and/or negotiations requires South Gippsland Water, prior to 2012/13, to incur:

- capital expenditure in excess of $5 million; and/or
- operating expenditure in excess of $1 million p.a.

The above triggers take into account the timing of this and the next Water Plan, in that a review would only be requested where the cost impacts are significant (capital and/or operating expenditure) and such impacts occur prior to year five of the 2008/09 to 2012/13 regulatory period.

Chapter 8

NON-PRESCRIBED SERVICES

8. NON-PRESCRIBED SERVICES

8.1. Classification of services as non-prescribed

Non-prescribed services are those not provided 'in connection with' prescribed services and are often provided in a competitive market. South Gippsland Water has identified a number of non-prescribed services, viz:

- income on investments;
- leasing of land/facilities surrounding water and wastewater treatment plants, including grazing, housing and mobile phone transmitters;
- federal/state payments for apprenticeship schemes;
- Workcover and insurance recoveries

8.2. Expenditure and revenue associated with non-prescribed services

Table 8.2 below details the expenditure and revenue forecasts associated with non-prescribed services for the regulatory period.

Non-Prescribed Services

No directly attributable costs have been identified for any of the non-prescribed services shown. A relatively token amount has been allocated which reflects the administration efforts related to administering investment activities, rentals/leases, invoice preparation and receipting.

Table 8.2 Forecasts of Non-prescribed Services

	FIRST REG PERIOD			SECOND REG PERIOD				
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Non Prescribed Services Summary								
Revenue	0.14	0.10	0.11	0.10	0.10	0.10	0.10	0.10
Operating expenditure	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Gross capital expenditure	-	-	-	-	-	-	-	-
Government contributions	-	-	-	-	-	-	-	-
Customer contributions	-	-	-	-	-	-	-	-
Net capital expenditure on Non-prescribed activities	-	-	-	-	-	-	-	-
Gifted Assets	-	-	-	-	-	-	-	-
Proceeds from disposals	-	-	-	-	-	-	-	-

APPENDICES

Document	Author	Source
Schedule of Proposed Tariffs (Real) – 1 July 2007 – 30 June 2013	South Gippsland Water	Attached
Urban Model for 2008 Water Price Review 8 October 2007	South Gippsland Water	www.sgwater.com.au
Water Industry Regulatory Order	Victorian State Government	www.esc.vic.gov.au
Statement of Obligations	Minister for Water, Environment and Climate Change	www.dse.vic.gov.au
June 2005 Water Price Review – South Gippsland Water Determination 1 July 2005 – 30 June 2008	Essential Services Commission	www.esc.vic.gov.au
South Gippsland Water Customer Charter	South Gippsland Water	www.sgwater.com.au
Customer Satisfaction Survey 2006	Bartley Consulting Pty Ltd	www.sgwater.com.au
Feedback from Community Consultations Report 1: Water Plan II Report 2: Long Term Water Supply Demand Strategy	Bartley Consulting Pty Ltd	www.sgwater.com.au
Principles to Establish EPA Environmental Obligations for Water Businesses for the 2008-2013 Pricing Determination	Environment Protection Authority	www.epa.vic.gov.au
Victorian Future 2004 -Bass Coast Local Government Area	Department of Sustainability and Environment	www.dse.vic.gov.au
Victorian Future 2004 - South Gippsland Local Government Area	Department of Sustainability and Environment	www.dse.vic.gov.au
Victorian Future 2004 - Wellington Local Government Area	Department of Sustainability and Environment	www.dse.vic.gov.au
Water Supply Demand Strategy	South Gippsland Water	www.sgwater.com.au
Review and Analysis of Inclining Block Tariffs and Volumetric Sewerage Charges	Price Waterhouse Coopers	www.sgwater.com.au
Proposed Price Structure – Customer Impacts Analysis	Price Waterhouse Coopers	www.sgwater.com.au
Justification of Trade Waste Charges for SGW – Submission to the ESC Water Plan	Hatler Group	www.sgwater.com.au

APPENDIX 1

Schedule of Proposed Tariffs (Real) – 1 July 2007 – 30 June 2013

Tariff and Price Component	*Price*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*
$, 1/1/07	*(1 July 2007)*	*(1 July 2008)*	*Var'n*	*(1 July 2009)*	*Var'n*	*(1 July 2010)*	*Var'n*	*(1 July 2011)*	*Var'n*	*(1 July 2012)*	*Var'n*
1.1 Water access fees (per annum)											
East/West District											
Access fee – Developed	199.88	210.50	5.3%	221.69	5.3%	233.47	5.3%	244.74	4.8%	255.84	4.5%
Access fee – Undeveloped	199.88	210.50	5.3%	221.69	5.3%	233.47	5.3%	244.74	4.8%	255.84	4.5%
Access fee – Agreements	181.72	191.38	5.3%	201.55	5.3%	212.26	5.3%	222.51	4.8%	232.60	4.5%
Access fee – Concessional	168.69	177.66	5.3%	187.10	5.3%	197.04	5.3%	206.55	4.8%	215.92	4.5%
Southern District											
Access fee – Developed	278.08	279.03	0.3%	280.25	0.4%	281.48	0.4%	283.26	0.6%	285.89	0.9%
Access fee – Undeveloped	278.08	279.03	0.3%	280.25	0.4%	281.48	0.4%	283.26	0.6%	285.89	0.9%
Access fee – Agreements	249.81	250.67	0.3%	251.77	0.4%	252.87	0.4%	254.48	0.6%	256.83	0.9%
Access fee – Concessional	168.69	169.27	0.3%	170.01	0.4%	170.76	0.4%	171.84	0.6%	173.43	0.9%
1.2 Water usage charges (per kL)											
Volumetric fee – Murray Goulburn	1.1754	1.2734	8.3%	1.3789	8.3%	1.4898	8.0%	1.6068	7.8%	1.7298	7.7%
Volumetric fee – All others	0.9665	1.0470	8.3%	1.1338	8.3%	1.2250	8.0%	1.3212	7.8%	1.4223	7.7%

Tariff and Price Component	*Price*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*
$, 1/1/07	*(1 July 2007)*	*(1 July 2008)*	*Var'n*	*(1 July 2009)*	*Var'n*	*(1 July 2010)*	*Var'n*	*(1 July 2011)*	*Var'n*	*(1 July 2012)*	*Var'n*
1.3 Sewerage access fees (per annum)											
Residential and non-residential											
Access fee – Developed	344.26	350.14	1.7%	356.11	1.7%	362.19	1.7%	368.37	1.7%	374.66	1.7%
Access fee – Undeveloped	202.08	205.53	1.7%	209.03	1.7%	212.60	1.7%	216.23	1.7%	219.92	1.7%

Tariff and Price Component	*Price*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*
$, 1/1/07	*(1 July 2007)*	*(1 July 2008)*	*Var'n*	*(1 July 2009)*	*Var'n*	*(1 July 2010)*	*Var'n*	*(1 July 2011)*	*Var'n*	*(1 July 2012)*	*Var'n*
1.4 Cistern access fees (per annum)											
1-2 Cisterns	111.58	113.48	1.7%	115.41	1.7%	117.37	1.7%	119.37	1.7%	121.39	1.7%
3-5 Cisterns	293.74	298.74	1.7%	303.82	1.7%	308.98	1.7%	314.23	1.7%	319.58	1.7%
6-10 Cisterns	567.87	577.52	1.7%	587.34	1.7%	597.32	1.7%	607.48	1.7%	617.81	1.7%
11-15 Cisterns	908.91	924.36	1.7%	940.08	1.7%	956.06	1.7%	972.31	1.7%	988.84	1.7%
16-20 Cisterns	1,516.32	1,542.09	1.7%	1,568.31	1.7%	1,594.97	1.7%	1,622.08	1.7%	1,649.66	1.7%
21-26 Cisterns	2,170.58	2,207.48	1.7%	2,245.01	1.7%	2,283.17	1.7%	2,321.98	1.7%	2,361.46	1.7%
27-35 Cisterns	2,660.40	2,705.62	1.7%	2,751.62	1.7%	2,798.40	1.7%	2,845.97	1.7%	2,894.35	1.7%
36–Greater Cisterns	3,040.39	3,092.08	1.7%	3,144.64	1.7%	3,198.10	1.7%	3,252.47	1.7%	3,307.76	1.7%
Volume Charge – (per kL)											
Volume Charge	0.9665	1.0470	8.3%	1.1338	8.3%	1.2250	8.0%	1.3212	7.8%	1.4223	7.7%

Tariff and Price Component	*Price*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*	*Price*	*%*
$, 1/1/07	*(1 July 2007)*	*(1 July 2008)*	*Var'n*	*(1 July 2009)*	*Var'n*	*(1 July 2010)*	*Var'n*	*(1 July 2011)*	*Var'n*	*(1 July 2012)*	*Var'n*
1.5 Minor trade waste fees											
Application fees (per application)											
Category 1	n/a	94.04	n/a	94.04	0.0%	94.04	0.0%	94.04	0.0%	94.04	0.0%
Category 2	n/a	149.84	n/a	149.84	0.0%	149.84	0.0%	149.84	0.0%	149.84	0.0%
Category 3	n/a	274.71	n/a	274.71	0.0%	274.71	0.0%	274.71	0.0%	274.71	0.0%
Access fees (per annum)											
Access fee – Category 1	n/a	298.05	n/a	339.78	14.0%	387.35	14.0%	441.57	14.0%	503.39	14.0%
Access fee – Category 2	n/a	395.79	n/a	451.20	14.0%	514.37	14.0%	586.38	14.0%	668.47	14.0%
Access fee – Category 3	n/a	491.04	n/a	559.79	14.0%	638.16	14.0%	727.50	14.0%	829.35	14.0%
Volumetric fees (per kL)											
All Categories	n/a	0.4000	n/a	0.4500	12.5%	0.5200	15.6%	0.5900	13.5%	0.6700	13.6%
Quality fees (per kg)											
BOD	n/a	0.3100	n/a	0.3500	12.9%	0.4000	14.3%	0.4600	15.0%	0.5200	13.0%
SS	n/a	0.2900	n/a	0.3300	13.8%	0.3800	15.2%	0.4300	13.2%	0.4900	14.0%
Nitogen	n/a	1.2900	n/a	1.4800	14.7%	1.6800	13.5%	1.9200	14.3%	2.1900	14.1%
Phosphorus	n/a	7.3800	n/a	8.4100	14.0%	9.5900	14.0%	10.9300	14.0%	12.4600	14.0%
Additional sampling (per sample)											
All Categories	n/a	Actual Cost	0.0%	Actual Cost	0.0%	Actual Cost	0.0%	Actual Cost	0.0%	Actual Cost	0.0%
Exceedence fees (per kg)											
Oil & Grease	n/a	0.0800	n/a	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%
Sodium	n/a	0.0800	n/a	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%	0.0800	0.0%
TOS	n/a	0.5600	n/a	0.5600	0.0%	0.5600	0.0%	0.5600	0.0%	0.5600	0.0%

Tariff and Price Component $, 1/1/07	*Price (1 July 2007)*	*Price (1 July 2008)*	*% Var'n*	*Price (1 July 2009)*	*% Var'n*	*Price (1 July 2010)*	*% Var'n*	*Price (1 July 2011)*	*% Var'n*	*Price (1 July 2012)*	*% Var'n*
1.6 New customer contributions (per lot)											
Headworks charges – all areas	514.47	514.47	0.0%	514.47	0.0%	514.47	0.0%	514.47	0.0%	514.47	0.0%
Outfall charges – all areas	514.47	514.47	0.0%	514.47	0.0%	514.47	0.0%	514.47	0.0%	514.47	0.0%

Tariff and Price Component $, 1/1/07	*Price (1 July 2007)*	*Price (1 July 2008)*	*% Var'n*	*Price (1 July 2009)*	*% Var'n*	*Price (1 July 2010)*	*% Var'n*	*Price (1 July 2011)*	*% Var'n*	*Price (1 July 2012)*	*% Var'n*
1.7 Miscellaneous fees and charges											
Property information statements *Fee imposed for providing a certificate issued in accordance with Section 158 of the, Water Act 1989.*	39.05	39.05	0.0%	39.05	0.0%	39.05	0.0%	39.05	0.0%	39.05	0.0%
Special meter readings *Fee imposed for providing a certificate which indicates water usage charges up to a specified date. Generally provided, on application, for property sales.*	20.01	20.01	0.0%	20.01	0.0%	20.01	0.0%	20.01	0.0%	20.01	0.0%
Developers consultants agreement											
Plan and design checking	1 % of total cost of works	1 % of total cost of works	0.0%	1 % of total cost of works	0.0%	1 % of total cost of works	0.0%	1 % of total cost of works	0.0%	1 % of total cost of works	0.0%
Design amendment checking	0.5 % of total cost of works	0.5 % of total cost of works	0.0%	0.5 % of total cost of works	0.0%	0.5 % of total cost of works	0.0%	0.5 % of total cost of works	0.0%	0.5 % of total cost of works	0.0%
Standard specifications & drawings (per copy)	53.69	53.69	0.0%	53.69	0.0%	53.69	0.0%	53.69	0.0%	53.69	0.0%
Administration fee	2.5 % of total cost of works	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%
As constructed records– water & sewer (per lot)	53.69	53.69	0.0%	53.69	0.0%	53.69	0.0%	53.69	0.0%	53.69	0.0%
Authority's clerk of works fee*	2.5 % of total cost of works	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%	2.5 % of total cost of works	0.0%
20mm Tapping Fee *Fee imposed for meter and labour associated in providing a tapping to the water main.*	295.79	295.79	0.0%	295.79	0.0%	295.79	0.0%	295.79	0.0%	295.79	0.0%
Plumbing Industry Commission (PIC) Fee *Fee imposed for providing sewer plans and processing applications to connect or modify plumbing.*	152.78	152.78	0.0%	152.78	0.0%	152.78	0.0%	152.78	0.0%	152.78	0.0%
Standpipe Water Sales (per kL) *Fee imposed for the sale of water via a metered standpipe.*											
- Registered Users	300% of volumetric fee	300% of volumetric fee	0.0%	300% of volumetric fee	0.0%	300% of volumetric fee	0.0%	300% of volumetric fee	0.0%	300% of volumetric fee	0.0%
- Unregistered Users	400% of volumetric fee	400% of volumetric fee	0.0%	400% of volumetric fee	0.0%	400% of volumetric fee	0.0%	400% of volumetric fee	0.0%	400% of volumetric fee	0.0%
Septic Tank Waste Receival (per kL) *Fee imposed on septic tank waste carters, for the disposing of sewage and/or other acceptable waste.*	20.00	20.00	0.0%	20.00	0.0%	20.00	0.0%	20.00	0.0%	20.00	0.0%