Water Plan III

2013/14 - 2017/18

TABLE OF CONTENTS

1. Water Plan III Overview

1.1 Introduction

The South Gippsland Region Water Corporation (South Gippsland Water) presents its Final Water Plan III covering the 5 year period 1 July 2013 to 30 June 2018.

South Gippsland Water released an exposure Draft Water Plan III for public comment in May 2012, and now formally submits its Final Water Plan III to the Essential Services Commission (ESC) in line with its regulatory obligations.

The key role of the 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 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 prices. 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. 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 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, Wonthaggi and Waratah Bay are examples with rising residential demand and the influx of a new socio-economic segment of customers to the region.

The Corporation produces potable drinking water from its water treatment plants and treated waste streams from its sewerage treatment plants, while meeting stringent regulatory demands and satisfying customer expectations at a cost that is sustainable and a price to consumers that is ratified by the economic regulator.

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.

Reuse is limited by climate and logistics, for example, typically 140 ML of the wastewater from South Gippsland Water's Tarraville treatment plant is used for pasture irrigation,

however, in 2011/12 due to wet conditions only 27% of wastewater was re-used. Reduced reliance on ocean outfalls and strategic emphasis on environmentally beneficial re-use is expected to result in an increase in the re-use of treated wastewater over the next decade.

South Gippsland Water's core functions are to provide secure water and wastewater services to around 20,000 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 30th June 2012

Centre	Population Served (Permanent) [See note 1]	Water		Sewerage
		Customers Billed	Supplied from	Customers Billed
Port Franklin	129	108	Agnes River	Not Serviced
Port Welshpool	209	273	Agnes River	257
Toora	717	517	Agnes River	283
Welshpool	155	204	Agnes River	119
Fish Creek	183	209	Battery Creek	Not Serviced
Korumburra	3348	2129	Coalition Creek storage network	1822
Foster	1106	828	Deep Creek / Foster Dam	736
Inverloch	4761	4400	Lance Creek	4364
Cape Paterson	774	1120	Lance Creek	1104
Wonthaggi	7507	4281	Lance Creek	4032
Loch	193	147	Little Bass	Not Serviced
Nyora	576	342	Little Bass	Not Serviced
Poowong	304	207	Little Bass	Not Serviced
Koonwarra	152 (estimate)	80	Ruby Creek storage network	Not serviced
Leongatha	4762	3006	Ruby Creek storage network	2810
Alberton	168	146	Tarra River	Not Yet Serviced
Devon North	80 (estimate)	124	Tarra River	Not Serviced
Port Albert	260	391	Tarra River	326
Yarram	1821	1177	Tarra River	1062
Dumbalk	172	103	Tarwin River – East Branch	Not Serviced
Meeniyan	451	264	Tarwin River – West Branch	229
Waratah Bay – See note 2.	152 (estimate)	Not Serviced	N/A	111

Notes:

1. Population Served based on ABS 2006 Census* updated with a local government growth factor of 2.5% Bass Coast Shire Council, 1.5% South Gippsland Shire Council and 0.9% Wellington Shire Council. Also note ABS method of calculation of population has changed, from enumerated persons, [population figure taken on where people are located on the census night], to a person's usual place of residence, regardless of where they are on Census night.

2. The Waratah Bay figures are an estimate only – it is not possible to isolate them from the ABS Fish Creek collection district, which also includes Sandy Point as well as the township of Fish Creek.

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 continue to be a major issue for the region.

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

Town	Population *(permanent)**	Allotments *
Greater Development Potential		
Venus Bay	588	1,586
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

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; and
- 13 reservoirs and 18 service storages.

A Water Services function comprising:

- 10 separate water supply systems;
- 10 water treatment plants;
- 692km of water mains;
- 15 water pump stations; and
- servicing some 20,056 assessments in 21 rural centres with around 4,721ML's (2011/12) annual volume of metered water .

A Sewerage Services function comprising:

- 12 conventional wastewater collection systems;
- 1 vacuum wastewater system;
- 12 sewerage treatment plants;
- 415km of wastewater mains;
- 59 wastewater pump stations;
- 4 marine environment outfalls;
- 2 inland water discharge points; and
- Servicing some 17,255 wastewater assessments in 13 rural centres collecting and treating 4,288ML's (2011/2012) 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 and Gippsland Water.

Map 1.2: South Gippsland Water Service Area

2. Executive Summary

2.1 Introduction

This is South Gippsland Water's third Water Plan, covering the period 1 July 2013 to 30 June 2018.

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 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;
- Operating Expenditure;
- Capital Expenditure requirements;
- Revenue required; and
- Tariff proposals

The weighted average price increase for an average customer (a residential customer with an average water consumption and wastewater service) as a result of the commitments and outcomes presented in this Water Plan is 1.9% p.a. before inflation.

The average yearly water and wastewater bill will increase by $14 p.a. for households of Wonthaggi, Inverloch and Cape Paterson (Southern Customers) and $26 p.a. for all other households (East/West Customers).

The increases are based on an average district water usage (102kL's and 130kL'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 including, strong growth in water and wastewater customers, fluoridation of the Lance Creek water supply, the commissioning of small town sewerage schemes, general cost pressures and a significant capital expenditure program of $71.99M over the regulatory period.

A 1%pa productivity target has been factored into the forecast expenditures.
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 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 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 made up from the following elements:

- Operational expenditure;
- Return on assets to 30 June 2013;
- Regulatory depreciation of assets to 30 June 2013;
- Return on new assets;
- Regulatory depreciation of new assets; and
- Adjustments from last period.

Operating expenditure

Operating expenditure is by far the major component (61%) of the Corporation's revenue requirement, although this has decreased from 63% in Water Plan II.

The operating expenditure:

- Has an established baseline derived from historical expenditure;
- Contains expenditure associated with the introduction of a number of new regulatory obligations;
- Contains expenditure related to meeting growth of approximately 1.6%; and
- Contains a productivity improvement adjustment of 1% p.a.

Key drivers

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

Compliance With
Water Act 1989
Australian Drinking Water Guidelines 2011
Safe Drinking Water Act 2003
Safe Drinking Water Regulations 2005
Environment Protection Act 1970
EPA Corporate Licence
EPA Regulatory Obligations
Statement of Obligations
Customer Charters

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

Capital expenditure

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

Capital expenditure is predominately driven by growth (the Small Country Town Sewerage Scheme for Poowong, Loch and Nyora and the Northern Towns Supply Connection) and renewals (water/wastewater mains rehabilitation and water and wastewater plant renewals).

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 2.2 (a): Revenue Requirement

$ million in January 2013 prices

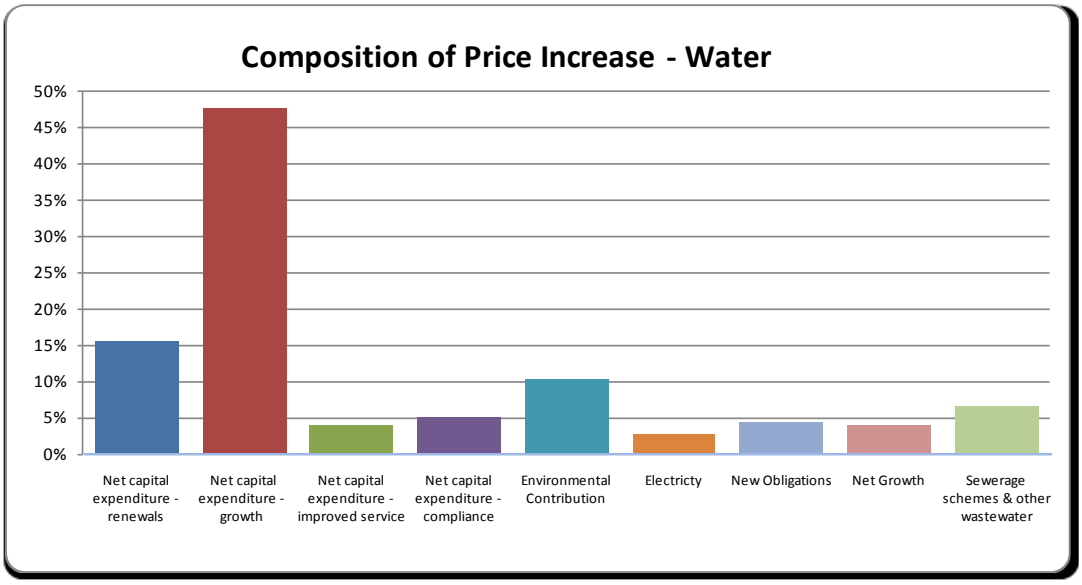
	THIRD REG PERIOD				
	2014 2013-14	2015 2014-15	2016 2015-16	2017 2016-17	2018 2017-18
Revenue requirement					
Operating expenditure	16.64	16.72	17.12	16.92	17.02
Return on assets to 30/6/13	5.83	5.64	5.45	5.26	5.07
Regulatory depreciation of assets to 30/6/:	3.15	3.15	3.15	3.15	3.15
Return on new assets	0.20	0.70	1.34	1.92	2.25
Regulatory depreciation of new assets	0.08	0.29	0.56	0.81	0.96
Adjustments from last period	0.27	0.27	0.27	0.27	0.27
Tax liability	-	-	-	-	-
Total revenue requirement	**26.18**	**26.78**	**27.89**	**28.33**	**28.72**

Table 2.3 above shows operating expenditure is generally constant at around $17.0M p.a., while the return of and on assets to 30/6/13 decreases over the Water Plan period as regulatory depreciation is recovered, the return of and on new assets increases as new assets are brought on.

The resulting price increase to an average customer from the above revenue requirement is 1.9% (real) p.a.

Graph 2.2(b) 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 48%, net capital expenditure – growth contributes most to the price increase. Other capital expenditure (renewals and compliance projects) and the increase in the environmental contribution comprise the bulk of the remainder.

Graph 2.2(b): Composition of Price Increase – 2008/09 to 20012/13



2.3 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 2.3(a) below.

Table 2.3(a): Obligations from Regulatory Agencies and the Government

Act/Legislation/Document	Service Outcomes
Water Act 1989	To provide Water and Sewerage services to customers.
Water Amendment and other Governance Reformes Bill 2012	Various revised items including debt recovery powers.
Statement of Obligations	Selected outcomes as set down by Government, but most significantly the implementation of the Poowong, Loch and Nyora Small Country Towns Sewerage Scheme.
EP Act, State Environmental Protection Policy and EPA Water Plan 3 Guidance	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, Safe Drinking Water Regulations 2005 and Department of Health Water Plan 3 Guidance.	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.
South Gippsland Water's Customer Charter and Trade Waste Customer Charter	Commitments to customers regarding the provision of service, including standards and conditions of supply for prescribed services.

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 Health 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.

2.4 Overview of Expenditure Forecasts

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 continues to experience cost pressures in the current regulatory environment. Total operating costs are forecast to increase from $16.7M in 2011/12 to an average of $16.88M 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.:

- Continuing provision of high quality water and wastewater services;
- Growth in water and wastewater customers of 1.6% p.a.;
- The commencement of Small Country Town Sewerage Schemes at Meeniyan, Alberton and Poowong/Loch/Nyora;
- The introduction of fluoridation at Lance Creek in order to meet Department of Health requirements;
- Development of advanced asset management systems;
- An increase in the Environmental Contribution; and
- Forecast increases in electricity costs.

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

Capital expenditure

At $71.99M, 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 (the Small Country Town Sewerage Scheme for Poowong, Loch and Nyora - $28.6M and the Northern Towns Supply Connection - $21.2M) and renewals (water/wastewater mains rehabilitation and water and wastewater plan renewals) which comprise the bulk of the remainder.

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

2.5 Overview of Proposed Tariff Structures

In line with its regulatory 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 appropriate incentives and signals about the sustainable use of water resources by reference to the costs of providing these services.

As a result of the reviews, South Gippsland Water will maintain a two part retail water tariff and a single fixed service disposal charge for residential and non-residential (non trade waste) customers.

South Gippsland Water will continue its staged rebalancing between the two district water service charges (i.e. implementation of a uniform water service charge) and gradually 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, by 2016/17 the tariffs will be aligned; and
- 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 3.2% real p.a. over the regulatory period.

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;
- Are subject to a relatively uniform price rise each year over the regulatory period;
- Provide appropriate incentives and signals to customers about the sustainable use of water resources by reference to the cost of providing those services; and
- Take into account the interests of low income and vulnerable customers.

2.6 Overview of Customer Consultation

South Gippsland Water has conducted customer consultation in order to develop this Water Plan. The Corporation used a hybrid consultation approach using in-house resources where applicable, however, it has recognised that external assistance can provide comprehensive and independent feedback and has utilised consultant services to strategic effect.

The objective of consultation was to inform both the preparation of the Water Plan and also to review the Draft Water Plan and apply any appropriate amendments as identified by the community.

South Gippsland Water prepared an engagement strategy prior to commencing consultation for the Water Plan. The consultation program undertaken by South Gippsland Water was based on this plan and included the following activities;

- Advertorials, adverts and media releases;
- Focus groups;
- Surveys including hard copy and web based;
- Newsletters and brochures;
- Fact sheets, surveys and information available on www.sgwater.com.au;
- Community and group presentations; and
- Requests for comment.

South Gippsland Water estimates that approximately 2.6% of around 20,000 customer accounts responded to Water Plan consultation. All accounts were targeted at least once during consultation activities. The most successful means of customer feedback (in terms of volume of response) came from hard copy surveys (366 responses).

Focus group discussions provided South Gippsland Water the opportunity to engage in detailed conversation regarding elements of the Water Plan, whilst surveys provided the opportunity for all customers to provide opinions and feedback quickly and efficiently.

The communication and consultation programs set out operating proposals and issues in order to gain customer feedback. The program also ensured general feedback was captured and gave ample opportunity for customers to provide feedback on aspects of the Water Plan in which their views could have the most impact (namely regarding service standards, Guaranteed Service Levels (GSLs) and pricing).

Topic areas covered in consultation activities included:

- Service standards;
- Major projects;
- Water provision (operational projects);
- Wastewater provision (operational projects)
- Pricing and tariff reform; and
- Environmental projects.

Customer viewpoints have been reflected in the proposals as outlined in this Water Plan. Feedback provided by the community regarding this Water Plan has been incorporated into each relevant section of this plan. South Gippsland Water has actively sought to consult with its customer base and utilise the feedback provided.

3. Length of Regulatory Period

Key Points

- South Gippsland Water has prepared this Water Plan for a 5 year regulatory period from 1st July 2013 to 30th June 2018.
- South Gippsland Water has used forecasts of an aggregate of 10 years to inform this Water Plan.
- South Gippsland Water proposes to utilise the Essential Services Commissions (ESC) regulatory mechanisms where significant uncertain or unforseen events arise

3.1 Introduction

South Gippsland Water's current regulatory period for Water Plan II is for 5 years commencing 1st July 2008 to 30th June 2013.

3.2 Length of Regulatory Period Three

The third regulatory period for South Gippsland Water (this Water Plan) will cover the 5 year period from 1st July 2013 to 30th June 2018. However, business planning and forecasts will be considered over the longer term and therefore all aggregate expenditure, demand, revenue and price forecasts are over 10 years.

South Gippsland Water has considered applying for a regulatory period longer than the normal 5 years.

Benefits of a longer regulatory period include:

- Reduced administration costs (which are ultimately passed on to customers);
- Greater certainty for customers about the outcomes to be delivered and prices over a longer time period;
- Greater opportunity for the incentive properties of the regulatory framework to work; and
- Stronger incentives for businesses to develop proposals with a longer term planning horizon.

Challenges of a longer regulatory period include:

- Providing robust and reliable forecasts, particularly for the later years of the period;
- Ensuring that all of the obligations and outcomes to be delivered are identified at the beginning of the regulatory period; and
- Dealing with uncertain or unforseen events that may significantly affect revenue.

South Gippsland Water believes that the disadvantages of a regulatory period longer than 5 years outweigh the benefits. This can be seen over the second regulatory period where there have been significant shortfalls in water demand, fluctuating climatic conditions, etc.

3.3 Uncertain or Unforseen Events Mechanism

South Gippsland Water will utilise the ESC's mechanism for managing uncertain and unforseen events, whereby South Gippsland Water can apply to the ESC for a price adjustment to account for such events.

The mechanism established a process for application for a price adjustment to account for events that are significant and uncertain or unforseen at the time of the original price determination.

4. Service Outcomes

Key Points

- South Gippsland Water will operate in accordance with its government & regulatory obligations.
- South Gippsland Water proposes core service standards largely in line with historic performance.
- South Gippsland Water proposes a number of additional service standards to reflect business specific services and local community issues.
- South Gippsland Water proposes a number of Guaranteed Service Levels (GSLs) to be introduced in the third regulatory period.
- South Gippsland Water will implement the Hardship related GSL as directed by the Essential Services Commission (ESC).

4.1 Introduction

Service outcomes underpin South Gippsland Water's expenditure, (operating and capital) proposals for the regulatory period and thus prices. This Water Plan broadly outlines proposed outcomes for:

- Government and other regulators;
- Performance against core service standards; and
- Proposed outcomes in order to meet service expectations.

It also highlights changes to outcomes since the second regulatory period (Water Plan II).

4.2 Government and Regulatory 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 government.

These environmental, water quality and other obligations or priorities are enshrined in legislation, guidelines, codes and charters and clarified outcomes with regulators and government, whilst having regard to potential customer impacts.

Guidance on these obligations has been provided by the Environment Protection Authority (EPA), Department of Health (DH) and Department of Sustainability and Environment (DSE).

Table 4.2(a) below outlines the key government and regulatory documents that have been considered as part of the Water Plan process.

Table 4.2(a): Government & regulatory obligations

Obligation	Weblinks
Water Act 1989	External Website - Link
Water Amendment (Governance and Other Reforms) Bill 2012	External Website - Link
Australian Drinking Water Guidelines (ADWG) 2011	ADWG External Website - Link
Safe Drinking Water Act 2003 (SDW Act)	External Website - Link
Safe Drinking Water Regulations 2005	External Website - Link
Department of Health (DH) Guidance on Water Plan III. Guidance Note No: 14	DH External Website - Link
Victorian framework for water treatment operator competencies – best practice guidelines	External Website - Link
Environment Protection Act 1970 (EP Act)	External Website - Link
State Environment Protection Policy (Waters of Victoria) [SEPP(WOV)] and its schedules	External Website - Link
Environment Protection Authority (EPA) Water Plan III Guidance: Publication # 1406.1	EPA External Website - Link
South Gippsland Water Statement of Obligations (Draft)	SGW Website - Link
South Gippsland Water Customer Charter	SGW Website - Link
South Gippsland Water Trade Waste Customer Charter	SGW Website - Link

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.

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.

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 4.2(b) following confirms the key obligations.

Table 4.2(b): Statement of Obligations Requirements

Part	Obligation	Outcomes Expected	Resourcing Requirement
1-6	Guiding Principles	Sound governance processes	Business as usual
2-1 & 2-2	Preparation and delivery of a Water Plan.	5 year Water Plan for pricing	Business as usual
3-1	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
3-3	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
4-1	The Corporation must develop and implement risk management plans, systems and processes having regard to ISO31000:2009.	Manage business risks	Business as usual
4-2	The Corporation must establish incident and emergency response systems, etc.	Manage incidents / emergencies	Business as usual
4-3	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
5-1	The Corporation must develop a Water Supply Demand Strategy , etc.	Strategy delivered March 2012, then every 5 years	Business as usual
5-2	The Corporation must develop a Drought Response Plans, that governs the management of water by the Corporation in any period of drought, etc.	Manage drought conditions	Business as usual
6-1	The Corporation must develop and implement plans, systems and processes to manage its assets, etc.	Efficiently manage assets	Business as usual
6-5	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	$28.6M CAPEX regarding the Poowong/Loch/Nyora Sewerage Scheme
6-7	The Corporation must develop policies to manage Trade Waste, etc.	Implement & maintain Sound Trade Waste systems	Business as usual
7-1	The Corporation must monitor compliance with its obligations under the Statement of Obligations, etc.	Ensure compliance with Statement of Obligations	Business as usual
7-2	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

Water Amendment (Governance & Other Reforms) Bill 2012

The Water Amendment (Governance & Other Reforms) Bill 2012 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 4.2(c). All obligations are new obligations.

Table 4.2(c): Water Amendment (Governance & Other Reforms) Bill 2012

Clause	Obligation	Outcomes Expected	Resourcing Requirement
n/a	Minister to determine water supply and sewerage boundaries, without need for applications from water corporations, advertising and public consultation	More efficient administration	Once off effort to be absorbed in BAU expenditure
n/a	Property owner will be given right to seek VCAT review of decision to connect to sewerage	Customer benefits	Possible loss of revenue to be absorbed
n/a	Repeal of water consumption recover powers	Customer benefits	Loss of revenue (interest). Possible higher bad debts to be absorbed
n/a	VCAT review and jurisdictional changes	Customer benefits	Possible costs related to VCAT attendance to be absorbed in BAU expenditure
n/a	Replacement of by-laws relating to trade waste, water supply and sewerage with regulations	Administration benefits	Once off effort to be absorbed in BAU expenditure
n/a	Water Act to require Emergency Management Plans for all functions. Removed from Statement of Obligations	Administration benefits	Absorbed in BAU expenditure
n/a	Modification of water corporation rights to enter land	Customer benefits	Absorbed in BAU expenditure

South Gippsland Water's customer charters

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 (as at 1st of July 2012) 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:

- Connection and service provision;
- Complaints handling;
- Tariffs and charges;
- Accounts and payments, including meter readings, payment plans and hardship;
- Collection policies including actions for non-payment of accounts;
- Quality and reliability of services;
- Reconnection and maintenance;
- Provision of information; and
- Service Standards and Guaranteed Service Levels.

During 2011, the ESC developed a Trade Waste Customer Service Code that required and specified responsibilities to be covered in a Trade Waste Customer Charter.

South Gippsland Water's Trade Waste Customer Charter (commencing from 1 July 2012) informs customers about the trade waste services provided by South Gippsland Water and the respective rights and responsibilities of South Gippsland Water and its customers, including:

- Application, risk identification and classification of trade waste customers;
- Trade waste agreements;
- Fees and charges;
- Acceptance Criteria; and
- Dispute resolution.

Environmental obligations

Environmental performance – 2nd regulatory period

South Gippsland Water's capital and operational programs include activities associated with continuous improvement of environmental performance. This is consistent with regulatory requirements, the Statement of Obligations and industry best practice.

The environmental activities proposed during the second regulatory period; were derived primarily from *Environment Protection Authority (EPA) Publication 1069 Principles to Establish EPA Environmental Obligations for Water Businesses for the 2008-2013 Pricing Determination.*

Details of activities and their progress are as follows.

Table 4.2(d): 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	• Environment & wastewater section has continued to work with trade waste generators re waste reduction opportunities. • Recycling of treated wastewater has been investigated. • Wastewater reuse schemes have been implemented at Welshpool and Waratah Bay wastewater treatment plants.
Sewage Treatment and Disposal	Monitoring programs for wastewater outfalls have been expanded and implemented.
Biosolids Management	• A sludge processing / handling facility at Leongatha wastewater treatment plant has been established. • Sludge dewatering facilities have been constructed at the Leongatha and Korumburra wastewater treatment plants.
Sewerage Planning	• SGW is continuing to negotiate with relevant agencies and communities re establishing sewerage schemes for priority small towns. • The Meeniyan sewerage reticulation and wastewater treatment plant has been constructed and commissioned for operation.
Management of Sewerage Systems	• Actions identified in the Sewerage Systems Management Plan have been undertaken. • A number of system stormwater infiltration investigation works have been undertaken. Problem sections of Welshpool, Foster, Inverloch and Korumburra systems 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 surveys have been undertaken in the Foster, Toora, Wonthaggi, Inverloch and Cape Paterson systems.
Greenhouse Gas Management and Energy Efficiency	• Undertaken low energy wastewater aeration trials. • Installed solar panels at Wonthaggi, Korumburra and Toora totaling 25kW. • Water and wastewater pumping optimisation carried out. • Efficient lighting installed.
Licence Compliance	SGW's Environmental Management System (EMS) was certified by an independent auditor to ISO14001. Licence compliance is managed via the EMS.
Environmental Obligation Aspect	**South Gippsland Water Key Activity**
Catchment, Waterway and Groundwater Management	
Provision and Auditing of Environmental Flows	• Developed a Bulk Entitlement Metering Program which was approved by the Minister for Water. • Conducted an audit of bulk water entitlements for all systems which was fully compliant.
Waterway Management Obligations	Not applicable to SGW. This obligation applies specifically to Melbourne Water.
Releases from Storages	Bulk water entitlements have been monitored and reported in accordance with the metering program.
Groundwater Management Provisions	Implications on water table and groundwater has been considered during extractions.
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 all wastewater systems were amalgamated into a single EPA Corporate Licence.

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:

- Upgrade of sewer pump stations to best practice.
- Sewer reticulation relining and rehabilitation.
- Installation of sludge dewatering equipment at Korumburra and Leongatha Wastewater Treatment Plants (WWTPs).

Table 4.2(e) following illustrates South Gippsland Water's EPA licence compliance for the period 2008/09 to 2011/12.

Table 4.2(e): EPA Licence Compliance

Sewerage Treatment Licence Compliance	Actual 2008/09	Actual 2009/10	Actual 2010/11	Actual 2011/12
Foster	No_1	No_1	No_1	Yes
Korumburra	Yes	Yes	Yes	Yes
Leongatha (Domestic)	Yes	Yes	Yes	No_2
Leongatha (Trade Waste)	Yes	Yes	Yes	Yes
Toora	Yes	Yes	Yes	Yes
Welshpool	Yes	Yes	Yes	Yes
Wonthaggi/Cape Paterson/Inverloch	Yes	Yes	No_1	Yes
Yarram	Yes	Yes	Yes	Yes
Waratah Bay	Yes	Yes	Yes	Yes

1. BOD and suspended solids have been above the licence limit due to algal growth. A number of improvement works contributed to compliance in 2011/12.
2. Five maximum ammonia exceedences occurred due to an unknown industrial discharge which seriously affected the plants ability to remove nitrogen.

Environmental obligations – 3rd regulatory period

In December 2011 the EPA issued an Information Bulletin *"EPA Water Plan 3 Guidance"*. The bulletin was designed to provide clarity, at an overview level, regarding EPA Victoria's environmental obligations that water corporations are expected to address in their Water Plan submissions in order to comply over the third regulatory period.

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 focused 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 the 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 key legislation and regulations (e.g. EP Act, SEPP(WoV), and licence conditions);
- Implement the waste hierarchy for all relevant business activities; and
- Ensure efficient use of resources in business activities.

Sewerage treatment and disposal:

- Continue monitoring, reporting and reducing discharge impacts and mixing zones;
- Continue upgrade programs for treatment plants;
- Recycle reclaimed water in accordance with EPA and Department of Health guidelines; and
- Recycled water and its beneficial properties (e.g. water, nutrients) reused for higher value uses.

Sludge and biosolids management:

- Implement plans to reuse 100% of biosolids and reduce existing stockpiles over time.

Management of the sewerage system:

- Implement a risk-based improvement program for the sewerage system; and
- Implement sewerage backlog programs, including provision of sewerage in unsewered industrial areas.

Water efficiency:

- Work with communities and businesses to implement efficient water-use practices; and
- Comply with Environment and Resource Efficiency Plan (EREP) program obligations.

Catchment, waterway and groundwater management:

- Implement environmental flows audit recommendations;
- Implement irrigation drainage audit recommendations; and
- Managed aquifer recharge (MAR) schemes assessed and managed in accordance with EPA guidelines.

South Gippsland Water has developed a strategy to meet with the requirements defined in the "Detailed Discussion of Obligations" section of *EPA Water Plan 3 Guidance.*

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

- Implementation of Small Town Sewerage Program;
  - Poowong/Loch/Nyora – $28.6M
- Wastewater Treatment Plant (WWTP) licence compliance;
  - Foster WWTP - $1.3M
  - Leongatha WWTP digester upgrade – $2.1M
- Management of the sewerage system;
  - Pump station upgrades – $1.25M
  - Sewer rehabilitation and relining - $3.0M
- Wonthaggi Sewer System Upgrades - $1.3M; and
- Inverloch Sewer System Upgrades - $1.0M

Water quality obligations

Water quality performance – 2nd regulatory period

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 2011.

All water samples collected and reported as part of the monitoring programs conducted by South Gippsland Water are independently analysed by a National Association of Testing Authorities (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 4.2(f) below is for the period 2008/09 to 2011/12 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 Health.

Table 4.2(f): Drinking Water Compliance

Parameter	Results 2008/09	Results 2009/10	Results 2010/11	Results 2011/12
E.coli (<1 *E.coli* in 98% of samples taken)	100.0%	100.0%	100.0%	100.0%
Turbidity (95% upper confidence limit of the mean <=5 NTU)	100.0%	100.0%	100.0%	100.0%
Aluminium (<=0.2 mg/L)	99.6% [1]	99.6% [2]	99.6% [3]	100.0%
Trihalomethanes (<=250mg/L)	100.0%	100.0%	100.0%	100.0%
Chloroacetic Acid (<=150mg/L)	100.0%	100.0%	100.0%	100.0%
Dichloroacetic Acid (<=100mg/L)	100.0%	100.0%	100.0%	100.0%
Trichloroacetic Acid (<=100mg/L)	100.0%	100.0%	100.0%	100.0%

[1] A non-conformance with the water quality standard for acid-soluble aluminium was recorded on the 5th of May for Meeniyan. The incident of non-compliance relates to optimisation of coagulation/flocculation processes at the treatment plant.

[2] A non-conformance with the water quality standard for acid-soluble aluminium was recorded on the 7th of July for Meeniyan. . The incident of non-compliance relates to optimisation of coagulation/flocculation processes at the treatment plant.

[3] In the course of optimising treatment following a change in water quality and growth of algae in the Devon north raw water basin, high aluminium levels in the treated water were recorded. A non-conformance for a regulatory sample collected from Alberton occurred on 3rd November 2010.

Water quality obligations – 3rd regulatory period

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.

In 2011, the Department of Health conducted a series of seminars on the updated 2011 *Australian Drinking Water Guidelines* to ensure that all stakeholders were aware of requirements that had been introduced into the Guidelines. Further to these seminars and the Department of Health Guidance Note No.14, *Guidance on Water Plan 3*, in 2012 South Gippsland Water organised a formal meeting with the Department to discuss specific obligations as they apply to South Gippsland Water for the period of the Water Plan

South Gippsland Water manages risks to drinking water quality through having appropriate and effective water treatment barriers as required by the Safe Drinking Water Act. Additionally, the assessment of the effectiveness of these barriers is an on-going process. This is reflected in the Corporation's risk management plan which has been modelled on the *Australian Drinking Water Guidelines (ADWG)*. This Plan is not only audited as required by the Act but independently by specialist consultants to further improve processes. As part of the continuous improvement process, discussions were initiated with Department of Health on the importance of the ADWG's on particular legislation changes to Safe Drinking Water (SDW) regulations in 2015. In regards to some of the potential changes, if passed, there would be a material impact on the operating and capital costs of South Gippsland Water. Specifically, this includes the possible introduction of new standards for post filter turbidity and chlorine contact time. If this occurs, South Gippsland Water would need to perform filter and disinfection capital upgrades to improve treatment performance and implement a higher standard of monitoring and analysis of on-line quality data.

Currently all South Gippsland Water treatment plant operators are trained, or on a path of training, to achieve Certificate III in Water Treatment as required by our water systems risk classifications. Certificate III in Water Treatment has been a minimum requirement at South Gippsland Water for some time and definitely prior to the development of the *Victorian framework for water treatment operator competenices – best practice guidelines*. The framework has provided South Gippsland Water with useful additional guidance in relation to formalising the appointment of responsible persons for new and/or staff in training, training timelines etc. The introduction of the competency framework will assist in ensuring that water treatment plant operators undertake a minimum level of training based on the assessed risk rating of the water treatment plant being operated. Whilst implementation of this initiative will present in higher training costs, higher salaries due to more qualified staff and potentially employing extra staff in order to ensure coverage for leave, this will be offset by the potential reduction in competently managing water quality systems and risks.

The above capital costs for filter and disinfection upgrades have not been costed in the Water Plan expenditures.

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

- UV Disinfection - Foster, Toora & Leongatha WWTP - $0.2M
- General System Improvements works - $1.0M

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 Water Plan III Guidance: Publication #1406.1. 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;
- **Department of Health (DH):** South Gippsland Water has conducted formal meetings with the Department and received written feedback in regards to the draft Water Plan. Issues related to standards to be met in the delivery of potable water to customers and the actions needed to meet this objective have been discussed. In consultation with the Department, specific details have been addressed to ensure the Water Plan satisfies the Department of Health Guidance Note No.14, *Guidance on Water Plan 3*; and
- **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, e.g. New Statement of Obligations requirements, etc. Further confirmation was received during the Corporate Planning process and consultation on the Draft Water Plan.

4.4 Service Standards

The Essential Services Commission (ESC) 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 targets that South Gippsland Water intends to achieve over the regulatory period.

Table 4.4(a) below, 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 historical performance (provided for 2009/10 to 2011/12).

Table 4.4(a): Core Service Standards & Performance

Service Standards

	2008/09 Actual			2009/10 Actual			2010/11 Actual			2011/12 Actual			2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	Actual	Target	Var.	Actual	Target	Var.	Actual	Target	Var.	Actual	Target	Var.	Target	Target	Target	Target	Target	Target
Water																		
Unplanned water supply interruptions (per 100km)(number)	26.3	28.0	6.1%	26.1	28.0	6.8%	17.3	28.0	38.2%	12.1	28.0	56.8%	25.0	25.0	25.0	25.0	25.0	25.0
Average time taken to attend bursts and leaks (priority 1)(minutes)	24.3	30.0	19.1%	20.2	30.0	32.7%	23.4	30.0	22.0%	16.9	30.0	43.7%	30.0	30.0	30.0	30.0	30.0	30.0
Average time taken to attend bursts and leaks (priority 2)(minutes)	28.4	40.0	29.1%	17.2	40.0	57.0%	26.4	40.0	34.0%	20.9	40.0	47.8%	40.0	40.0	40.0	40.0	40.0	40.0
Average time taken to attend bursts and leaks (priority 3)(minutes)	389.7	1440.0	72.9%	446.4	1440.0	69.0%	484.6	1440.0	66.3%	516.3	1440.0	64.1%	600.0	600.0	600.0	600.0	600.0	600.0
Unplanned water supply interruptions restored within 5 hours (percent)	99.0	99.0	0.0%	100.0	99.0	1.0%	100.0	99.0	1.0%	99.0	99.0	0.0%	99.0	99.0	99.0	99.0	99.0	99.0
Planned water supply interruptions restored within 5 hours (percent)	92.0	99.0	-7.1%	100.0	99.0	1.0%	99.0	99.0	0.0%	100.0	99.0	1.0%	99.0	99.0	99.0	99.0	99.0	99.0
Average unplanned customer minutes off water supply (minutes)	30.5	36.0	15.4%	20.1	33.0	39.1%	15.7	33.0	52.4%	7.1	33.0	78.5%	30.0	30.0	30.0	30.0	30.0	30.0
Average planned customer minutes off water supply (minutes)	29.3	159.0	81.6%	64.4	150.0	57.1%	42.3	150.0	71.8%	30.4	150.0	79.7%	100.0	100.0	100.0	100.0	100.0	100.0
Average unplanned frequency of water supply interruptions (ratio)	0.31	0.33	6.1%	0.22	0.30	26.7%	0.16	0.30	46.7%	0.08	0.30	73.3%	0.30	0.30	0.30	0.30	0.30	0.30
Average planned frequency of water supply interruptions (ratio)	0.12	0.50	76.0%	0.30	0.50	40.0%	0.23	0.50	54.0%	0.16	0.50	68.0%	0.40	0.40	0.40	0.40	0.40	0.40
Average duration of unplanned water supply interruptions (minutes)	99.7	100.0	0.3%	91.9	100.0	8.1%	100.0	100.0	0.0%	94.8	100.0	5.2%	100.0	100.0	100.0	100.0	100.0	100.0
Average duration of planned water supply interruptions (minutes)	238.1	300.0	20.6%	211.4	300.0	29.5%	186.7	300.0	37.8%	194.0	300.0	35.3%	250.0	250.0	250.0	250.0	250.0	250.0
No. of customers experiencing more than 5 unplanned water supply interruptions in the year (number)	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0	0.0	0.0	0.0
Unaccounted for water (percent)	15.4	14.0	-10.0%	14.1	14.0	-0.7%	16.3	14.0	-16.4%	17.8	14.0	-27.1%	16.0	16.0	16.0	16.0	16.0	16.0
Sewerage																		
Sewerage blockages (per 100km)(number)	17.5	18.0	3.0%	16.7	18.0	7.2%	7.7	18.0	57.2%	21.7	18.0	-20.6%	18.0	18.0	18.0	18.0	18.0	18.0
Average time to attend sewer spills and blockages (minutes)	16.2	30.0	45.9%	16.6	30.0	44.7%	22.0	30.0	26.7%	31.2	30.0	-4.0%	30.0	30.0	30.0	30.0	30.0	30.0
Average time to rectify a sewer blockage (minutes)	69.0	120.0	42.5%	61.3	120.0	48.9%	68.7	120.0	42.8%	75.0	120.0	37.5%	120.0	120.0	120.0	120.0	120.0	120.0
Spills contained within 5 hours (percent)	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	100.0	100.0	100.0	100.0
No. of customers receiving more than 3 sewer blockages per year (numbe	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0	0.0	0.0	0.0
Customer service																		
Complaints to EWOV (per 1,000 customers)	0.8	1.1	27.3%	1.0	1.1	9.1%	0.9	1.1	18.2%	0.9	1.1	18.2%	1.1	1.1	1.1	1.1	1.1	1.1
Telephone calls answered within 30 seconds (percent)	99.0	98.0	1.0%	99.0	98.0	1.0%	99.0	98.0	1.0%	100.0	98.0	2.0%	98.0	98.0	98.0	98.0	98.0	98.0

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.

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 largely been consistent with the current regulatory targets.

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 time taken to attend bursts and leaks (Priority 3);
- Average unplanned customer minutes off water supply;
- Average planned customer minutes off water supply;
- Average planned frequency of water supply interruptions (minutes); and
- Average duration of planned water supply interruptions (minutes).

Capital and operational expenditure

Major capital expenditure for the regulatory period is generally targeted at the Poowong, Loch and Nyora Small Country Town Sewerage Scheme and the Northern Towns Supply Connection to the Melbourne Water Supply System. 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".

Customer consultation

In preparing this Water Plan South Gippsland Water consulted with customers regarding a range of topics. Consultation occurred in both preparing the Draft and this Final Water Plan. Consultation included focus groups (March and August 2012 – for further information see section 13 Customer Consultation) where participants discussed in detail a range of topics including service standards.

As part of the focus group discussions, participants were provided with all of South Gippsland Water's existing core service standards. These standards were reviewed with all standards being seen as appropriate. In the follow up focus groups conducted in August 2012, customers once again approved South Gippsland Water's service standards and the proposal to improve some targets. Overall 93% of participants were happy for South Gippsland Water to improve or maintain its service standards.

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 South Gippsland Water and where possible appropriate mitigation action taken.

Additional service standards

It is recognised that beyond a 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 community issues.

In line with the ESC's advice in its "2013 Water Price Review – Guidance on Water Plans", South Gippsland Water has proposed additional service standards for recycled water, biosolids reuse, Small Town Sewerage connections, environmental discharge compliance and drinking water quality. The small town sewerage connections are relevant with respect to new schemes from Meeniyan, Alberton, Poowong, Loch and Nyora. The targets for biosolids reuse reflect capital expenditure planned for the regulatory period. Targets are set out in table 4.4(b) below.

Table 4.4 (b): Targets for Additional Service Standards

	2008/09 Actual			2009/10 Actual			2010/11 Actual			2011/12 Actual			2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Additional service standards	Actual	Target	Var.	Actual	Target	Var.	Actual	Target	Var.	Actual	Target	Var.	Target	Target	Target	Target	Target	Target
Total CO2 equivalent Emissions (Tonne)	11458.0	9101.0	-25.9%	13208.7	9101.0	-45.1%	12559.6	9101.0	-38.0%	8152.6	9101.0	10.4%	8,283.0	8,415.6	8,550.2	8,687.0	8,826.0	8,967.2
Recycled w ater target (% reused)	3.6	2.0	80.0%	3.0	2.0	50.0%	1.0	2.0	-50.0%	2.0	2.0	0.0%	2.0	2.0	2.0	2.0	2.0	2.0
Biosolids reuse (% reused)	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	5.0	-100.0%	-	-	25.0	50.0	75.0	100.0
Small Tow n Sew erage Scheme connections (no. of)	0.0	0.0	0.0%	0.0	0.0	0.0%	5.0	206.0	-97.6%	58.0	2.0	2800.0%	35.0	45.0	25.0	20.0	7.0	5.0
Environmental discharge indicator (percent)	94.7	100.0	-5.3%	94.0	100.0	-6.0%	98.7	100.0	-1.3%	99.5	100.0	-0.5%	100.0	100.0	100.0	100.0	100.0	100.0
Drinking w ater quality indicators (percent)	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	0.0%	100.0	100.0	100.0	100.0	100.0	100.0

4.5 Guaranteed Service Levels (GSLs)

South Gippsland Water has reviewed the adoption of GSLs with its customers based on the ESC's "2013 Water Price Review - Guidance on Water Plans" in which it states that, all urban businesses should propose GSL schemes for the third regulatory period.

South Gippsland Water customers were asked to review GSLs at focus group sessions during preparation of the Draft Water Plan and prior to South Gippsland Water preparing this Final Water Plan. During the March 2012 focus groups, customers were divided as to the value of GSLs; 20% believed they were worthwhile, 34% believed that they were not worthwhile and 31% did not respond.

As GSLs have been mandated by the ESC, South Gippsland Water wished to understand which GSLs were of most concern to customers. Focus group participants and survey respondents were asked to rate a number of GSLs and to provide a suggested amount of payment/rebate.

Focus group participants rated the GSL for sewage spills inside the house as the most important. Survey respondents were asked to select the service standards that should attract compensation and rated restoration of supply during unplanned interruptions (water & sewer), sewer spills containment and the hardship GSL (relating to restrictions for non payment) higher than those relating to the number of service interruptions per year.

Level of payment/rebate

South Gippsland Water consulted customers of the March 2012 focus groups regarding the level of rebate to be applied. Many customers struggled to come up with an appropriate dollar figure with all GSLs attracting a range of $20 - $75. Based on focus groups and survey results, in its Draft Water Plan, South Gippsland Water proposed to adopt rebate levels similar to those approved by the ESC in the 2008/2009 water price reviews for other water businesses with rebates/payments ranging from $50 per event up to $1,000 per event for sewage spills.

Proposed GSL scheme

During the August focus groups the proposed GSLs including rebate/payment amounts were reviewed and endorsed by South Gippsland Water's customers, with 93% of participants seeing these GSLs and rebate amounts as being appropriate (refer to table 4.5 – Proposed GSL Scheme below).

In addition, from the August 2012 survey 73% of customers endorsed the proposed GSLs and 71% of customers believed rebate amounts were reasonable.

Table 4.5(a): Proposed GSL Scheme

As such, South Gippsland Water proposes the following GSLs:

Service level obligation	***Level of service***	***Rebate/payments for breach per customer ($)***
Unplanned water interruptions restored within five hours of notification	All	$75
Unplanned interruptions to sewer service rectified within 5 hours of notification	All	$75
If South Gippsland Water causes a sewage spill within a customer's house, South Gippsland Water will pay the customer $1,000. South Gippsland Water will also clean up the property and provide alternative accommodation as required.	All	$1,000

Hardship related GSL

In September 2010 the ESC mandated that 9 urban retail water businesses implement a hardship related GSL from 1st January 2011. The ESC recently advised that they have decided to extend the hardship related GSL to all 16 urban water retail businesses from 1st July 2012.

The hardship related GSL is defined as:

Restricting the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying.

A $300 fixed payment amount applies for a breach of the hardship related GSL by a retail water business. South Gippsland Water will implement the hardship related GSL as directed by the ESC. However, South Gippsland Water did find during its focus group consultation that some customers needed further explanation to understand this GSL, whilst others felt that education needed to occur, so that customers knew of their rights and entitlements.

5. Operating Expenditure

Key Points

- South Gippsland Water's business as usual (BAU) operating costs are proposed to increase from $15.16M in 2011/12 to $15.62M (3.0%) in 2017/18, an average increase of 0.6% p.a.
- New initiatives and obligations comprise $0.27M operating expenditure by 2017/18.
- Total prescribed operating expenditure will total $17.02M in 2017/18, an increase of 5.9% from 2011/12 (1.2% p.a.).
- The Environment Contribution, higher electricity prices and the commissioning of small town sewerage schemes will contribute to South Gippsland Water's increased operating expenditure.
- South Gippsland Water has applied a 1% p.a. productivity improvement as per the Essential Services Commissions' (ESC) guidance paper.
- Operating expenditure excludes once-off costs relating to drought, major projects and write-offs from Capital Work In Progress.

5.1 Operating Expenditure

Operating expenditure is a 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' (BAU) 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.

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 for Water, Department of Sustainability and Environment (DSE), other regulators such as the Environment Protection Authority (EPA) and Department of Health (DH), 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 initiatives and obligations includes any operating expenditure associated with the introduction of new obligations imposed by the government or regulators, or increased service standards required by customers which take effect or are reasonably anticipated to take effect on 1 July 2013 or later.

Benchmark operating expenditure

Actual operating expenditure over the regulatory period is estimated to be $4.96M over the benchmark,(that approved in the 2008 Price determination), as demonstrated in Table x.1(B) below.

Table 5.1(a): Actual versus Benchmark Operating Expenditure

$ million in January 2013 prices

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Benchmark Operating Expendiure	14.88	14.36	14.58	14.46	14.61	72.9
Actual Operating Expendiure	14.91	14.89	15.84	16.14	16.06	77.9
Variation	**0.03**	**0.54**	**1.26**	**1.68**	**1.45**	**4.96**

* 2008/09, 2009/10, 2010/11 & 2011/12 are actuals, while 2012/13 is as forecast.

Increases in operating expenditure over the regulatory period can be attributed to:

- Increases in staffing levels above those estimated as a result of customer and network growth, risk management, compliance and telemetry programs;
- Review and reclassification of staff bandings as a result of market forces on wages over the period in order to remain competitive, retain and attract staff. There was over a 70% turnover of experienced water and wastewater treatment operators over 2010 and 2011;
- Chemical costs have increased above the Consumer Price Index (CPI) significantly more than expected;
- Sampling and testing contract renewal occurred during the period. A competitive tender process resulted in over a 50% increase in costs;
- Repairs and maintenance costs increased significantly as a result of a higher focus on asset management and repairs and maintenance programs;
- Sludge removal increased as a result of commissioning of mechanical dewatering facilities at the Leongatha and Korumburra Wastewater Treatment Plants;
- Dam inspection costs increased as a result of increased surveillance programs and risk management which in turn has reduced capital spend requirements; and
- Implementation of Hansen 8 Asset Management System during 2011/12 which has impacted on software maintenance costs.

5.2 Overview of Proposed Operating Expenditure

Business as usual operating expenditure

The following Tables 5.2(a) and 5.2(b) outline South Gippsland Water's forecasts of business as usual operating expenditure for each year of the regulatory period. They also details actual and forecast operating expenditure from 2008/09 to 2011/12. It excludes once off cost relating to drought, major projects and write-offs from Capital Work In Progress.

Table 5.2(a): Business As Usual Summary Operating Expenditure Forecast

	SECOND REG PERIOD					THIRD REG PERIOD				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Operating Expenditure Summary	$m, 01/01/13									
Water	9.22	11.19	9.39	9.65	9.56	9.62	9.67	10.03	9.79	9.85
Sewerage	5.04	4.76	5.59	5.68	5.60	5.64	5.67	5.70	5.74	5.77
Total Business as Usual	14.26	15.95	14.98	15.34	15.16	15.25	15.34	15.74	15.53	15.62

Table 5.2(b): Business As Usual Detailed Operating Expenditure Forecast

	SECOND REG PERIOD					THIRD REG PERIOD				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total BAU operating expenditur	$m, 01/01/13									
Water										
Operations & Maintenance	1.629	1.607	1.494	1.548	1.526	1.536	1.545	1.554	1.563	1.573
External bulk charges (excl. temporary purchase	-	-	-	-	-	-	-	-	-	-
Treatment	2.240	2.297	2.503	2.807	2.767	2.784	2.801	2.818	2.835	2.852
Customer Service and billing	0.352	0.380	0.367	0.402	0.437	0.439	0.442	0.445	0.447	0.450
GSL Payments	-	-	-	-	-	-	-	-	-	-
Licence Fees	0.027	0.026	0.009	0.010	0.015	0.015	0.015	0.015	0.015	0.015
Corporate	2.582	2.707	2.691	2.754	2.716	2.732	2.749	3.065	2.783	2.800
Other operating expenditure	2.419	4.203	2.340	2.142	2.112	2.125	2.138	2.151	2.164	2.177
Total Water	9.25	11.22	9.40	9.66	9.57	9.63	9.69	10.05	9.81	9.87
Sewerage										
Operations & Maintenance	0.589	0.619	0.939	0.974	0.961	0.966	0.972	0.978	0.984	0.990
External bulk charges (excl. temporary purchase	-	-	-	-	-	-	-	-	-	-
Treatment	0.760	0.998	1.032	1.213	1.196	1.203	1.210	1.218	1.225	1.232
Customer Service and billing	0.221	0.245	0.234	0.263	0.259	0.261	0.263	0.264	0.266	0.267
GSL Payments	-	-	-	-	-	-	-	-	-	-
Licence Fees	0.179	0.090	0.148	0.136	0.140	0.141	0.142	0.143	0.143	0.144
Corporate	2.172	1.953	2.239	2.182	2.151	2.164	2.177	2.190	2.203	2.216
Other operating expenditure	1.296	0.945	1.141	1.049	1.035	1.041	1.047	1.053	1.060	1.066
Total Sewerage	5.22	4.85	5.73	5.82	5.74	5.78	5.81	5.85	5.88	5.92
Licence fees										
Essential Services Commission	0.032	0.030	0.018	0.015	0.015	0.016	0.016	0.016	0.016	0.016
Department of Human Services	0.009	0.009	0.008	0.009	0.009	0.009	0.009	0.010	0.010	0.010
Environment Protection Authority	0.165	0.077	0.140	0.129	0.131	0.131	0.133	0.135	0.136	0.137
Total Licence fees	0.21	0.12	0.17	0.15	0.16	0.16	0.16	0.16	0.16	0.16
Environment Contribution	0.834	0.814	0.791	0.766	0.754	1.072	1.043	1.015	0.988	0.961

Key drivers of Business as Usual operating expenditure

Table 5.2(c) below 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.:

- Provision of high quality water services
- Growth in water and wastewater customers of 1.6% p.a.
- The commencement of Small Country Town Sewerage Schemes at Meeniyan, Alberton and Poowong/Loch/Nyora
- The introduction of fluoridation at Lance Creek in order to meet Department of Health requirements
- Development of advanced asset management systems;
- An increase in the Environmental Contribution; and
- Forecast increases in electricity costs.

Table 5.2(c): Key Drivers of Increased Business as Usual Operating Expenditure

Key Driver	Details	Expenditure Type
Water Act 1989 Safe Drinking Water Act 2003 Safe Drinking Water Regulations 2005	Higher water sampling and analysis costs in response to water quality risks - $0.030M p.a. Opex costs of implementation of fluoridation into Lance Creek water supply system in response to Department of Health requirements - $0.040M p.a.	Water Operation and Maintenance Water Operation and Maintenance
EPA Licence Compliance	De-sludging lagoons - $0.600M over the Water Plan period	Wastewater Operation and Maintenance
EPA Regulatory Obligations	Small Country Towns Sewerage Schemes - $0.145M Opex p.a.	Wastewater Operation and Maintenance
Statement of Obligations - Asset Management	Implementation of advanced asset management systems to minimise the whole of life costs of asset service delivery - $0.050M p.a.	Corporate
Environmental Contribution	An increase in the Environmental Contribution will add $0.318M p.a. to Opex	Corporate
Electricity Costs	Increased electricity costs related to higher usage and the introduction of the carbon tax - $0.101M	All areas

New obligations

In addition to business as usual costs, new obligations with respect to the various other regulatory drivers have been identified.

Table 5.2(d): Summary of New Obligations and Operating Expenditure

Key Driver	Obligation	Outcomes Expected	Resourcing Requirement
ESC Customer Service Code	Introduction of hardship GSL	Hardship GSL introduced	$0.013M p.a.
ESC Water Plan III Guidance	Introduction of GSLs	3 other GSLs introduced	$0.037M p.a.
Superannuation Guarantee	Phased increase in superannuation guarantee levy from 9% to 12% from 1/7/13 to 1/7/19	Compliant with legislation	$0.120M p.a. by 2017/18
Ministerial Advisory Committee - Living Melbourne Living Victoria	Living Victoria Initiatives – investigations and implementation.	Integrated water cycle initiatives (yet to be determined)	$0.100M p.a.

5.3 Justification of Forecast Expenditure Levels

The following table and graph show the increasing costs of running South Gippsland Water in the current regulatory environment. Total operating costs are forecast to increase from $16.07M in 2011/12 to an average of $16.88M p.a. over the 5 years of this Water Plan.

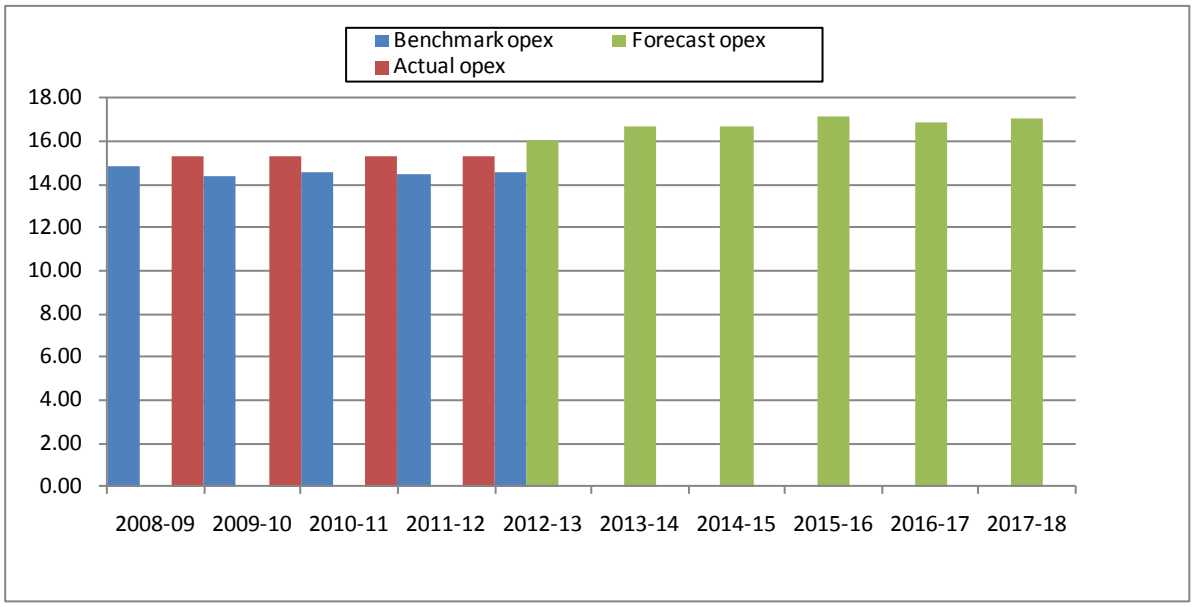
As illustrated above, a number of factors have contributed to these higher costs, including new obligations and resources required to meet existing standards and expectations (strong customer growth, the commissioning of small town sewerage schemes, water quality improvements, EPA licence compliance and increased electricity costs, etc).

Productivity improvements have been factored into the forecast expenditures.

Table 5.3(a): Total Operating Expenditure – Historical and Forecast

	SECOND REG PERIOD					THIRD REG PERIOD				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Operating Expenditure Summary	$m, 01/01/13									
Water	9.22	11.19	9.39	9.65	9.56	9.62	9.67	10.03	9.79	9.85
Sewerage	5.04	4.76	5.59	5.68	5.60	5.64	5.67	5.70	5.74	5.77
Total Business as Usual	14.26	15.95	14.98	15.34	15.16	15.25	15.34	15.74	15.53	15.62
New initiatives and obligations	-	-	-	-	-	0.17	0.18	0.21	0.24	0.27
Licence fees	0.21	0.12	0.17	0.15	0.16	0.16	0.16	0.16	0.16	0.16
Environment Contribution	0.83	0.81	0.79	0.77	0.75	1.07	1.04	1.01	0.99	0.96
Total prescribed opex	15.30	16.88	15.94	16.25	16.07	16.64	16.72	17.12	16.92	17.02

Graph 5.3(b): 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.

5.4 Productivity Improvements Over the Period

The Water Industry Regulatory Order (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 5.4(a) 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, and the environmental contribution. Licence fees and the environmental contribution have been excluded on the basis that they represent uncontrollable costs mandated by regulators and government.

Table 5.4(a): Adjusted BAU Expenditure and Productivity test

$m, 01/01/13		THIRD REG PERIOD				
		2013-14	2014-15	2015-16	2016-17	2017-18
Business as usual operating expenditure less transitory costs	Baseline growth adjusted BAU calculation (2011-12)					
Total Business as Usual	15.34	15.25	15.34	15.74	15.53	15.62
Less growth operating expenditure associated with:						
Water conservation						
Carbon offsets						
Drought management initiatives						
BAU expenditure less transitory costs	15.34	15.25	15.34	15.74	15.53	15.62
		15.67	15.77	15.86	15.96	16.05
Customer growth forecast for average growth % per annum 2011-12 to 2017-18	1.6%					
Productivity growth % p.a.	1.0%					
Productivity hurdle achieved for third regulatory period?	**PASS**	Annual test:	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

6. Capital Expenditure

Key Points

- South Gippsland Water forecasts that it will spend $63.32M of capital expenditure during the second regulatory period, $6.22M above benchmark.
- South Gippsland Water proposes to spend $71.99M of capital expenditure during this Water Plan period.
- The most significant projects are:
    - Poowong Loch and Nyora sewerage scheme $28.6M
    - Melbourne Supply System Connection to Northern Towns (Korumburra, Poowong, Loch, and Nyora) $21.2M
    - Reticulation Sewer Replacement/Rehabilitation $6.1M

6.1 Introduction

Capital expenditure is a 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 Draft Water Industry Regulatory Order (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.

6.2 Capital Expenditure in the Current Regulatory Period

The Water Plan for the second regulatory period identified a number of key capital projects that South Gippsland Water proposed to deliver during 2008/09 to 2012/13. Table 6.2(a), following, outlines South Gippsland Water's progress in the delivery of those major capital projects.

Table 6.2(a): Major Projects Identified in Water Plan 2 - 5 Year Capital Expenditure 2008/09 to 2012/13

Project & Project Driver	Project Description	Outputs to be achieved within regulatory period	Result/Progress	Project Cost to Date
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.	Construction works scheduled for completion 2010/11	Wastewater treatment plant site purchased. Detailed design of sewer reticulation and wastewater treatment plant finalized. Substantial delays expected due to regulatory approval processes. Rescheduled for commissioning in 2016/17.	$2.5M
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. 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.	Construction works scheduled for completion in 2011/12	Construction of 200 ML off-stream storage estimated to cost $6.2M. Did not proceed as groundwater supply considered to provide much greater reliability of supply at lower cost. Replaced by Yarram bore and pipeline project.	N/A
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.	Completion of Meeniyan sewer reticulation system. Installation of rising main from township to Meeniyan Wastewater Treatment Plant. Construction of Meeniyan Wastewater Treatment Plant lagoons and wetlands. Due for commissioning 2009/10	Considerable wet weather delayed the completion of the project significantly. Meeniyan Wastewater Treatment Plant and Wetlands to be officially opened by Deputy Premier on 27th September 2012.	$6.2M
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 vehicle replacement policy.	Ongoing replacement of SGW vehicle fleet over Water Plan.	On schedule	$2.6M

Project & Project Driver	Project Description	Outputs to be achieved within regulatory period	Result/Progress	Project Cost to Date
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.	Rehabilitate embankment to achieve required dam safety design standards. Raising the embankment and spillway to provide an additional storage capacity of 150 ML.	Augmentation of Battery Creek dam embankment wall and provision of additional storage capacity of 150 ML to commence in Water Plan 3. Detailed design 2011/12. Construction to commence 2012/13	In accordance with the Water Supply Demand Strategy, SGW will be linking Fish Creek (Battery Creek), Foster (Deep Creek) and Toora (Agnes River) water supply systems as part of the Central Towns Upgrades project. Upgrade of Battery Creek storage will not proceed due to high degree of uncertainty in potential servicing of towns south of Fish Creek.	N/A
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.	Reconstruction of leaking embankment crest and raising of embankment wall to achieve an additional storage capacity of 100 ML.	Augmentation of Coalition Creek dam embankment wall and provision of additional storage capacity of 100 ML. Construction completed 2010/11	In accordance with the Water Supply Demand Strategy, SGW will be linking Korumburra water supply system to the Melbourne supply system pipeline. Augmentation of Coalition Creek dam will not proceed.	N/A
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 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 water mains within SGW's region.	Approximately 5 km of water mains replaced per year.	$2.6M
Wonthaggi Wastewater Strategy Works The Wonthaggi Wastewater Treatment Plant (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.	Desluding of lagoons 2010/11. Purchase of nearby land 2010/11. Construction of winter storage lagoons 2011/12..	Revised strategy. Installation of probiotics low energy aeration system in lead lagoon was completed in February 2011. SGW will construct sludge drying pan and purchase mechanical sludge removal equipment to effectively remove sludge from existing Wonthaggi Wastewater Treatment Plant lagoons. Nearby land acquired.	$0.1M

Project & Project Driver	Project Description	Outputs to be achieved within regulatory period	Result/Progress	Project Cost to Date
Agnes River 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.	Construction of new off stream storage, transfer pipelines and pump station.	Construction of 50 ML off stream storage and installation of pump station and connecting transfer pipeline. Commissioning 2012/13.	In accordance with the Water Supply Demand Strategy, SGW will be linking Fish Creek, Foster and Toora (Agnes River) water supply systems as part of the Central Towns Upgrades project. Construction of 50 ML off stream storage will not proceed due to water quality concerns and high degree of uncertainty in future demands of potential Barry Beach development.	$0.2M
Reticulation Sewer Replacement/Rehabilitation 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 agreed established priorities with Operations.	Ongoing rehabilitation/replacement of ageing, cracked and broken reticulation sewer pipelines and maintenance holes.	Approximately 5 km of sewer pipelines relined and manholes rehabilitated over the year.	$1.6M

Note: The announcement (at the start of the second regulatory period) of a desalination plant to be constructed at Wonthaggi necessitated a change in long term strategies for South Gippsland Water resulting in variations to a number of capital works projects.

6.3 Actual Capital Expenditure Associated with the Delivery of Outcomes

South Gippsland Water committed itself to an ambitious capital expenditure program via its second Water Plan. The actual and benchmark capital expenditure approved via the ESC's June 2008 price determination is detailed in Table 6.3 (a) below.

Table 6.3(a): Actual versus Benchmark Capital Expenditure

$ million in January 2013 prices

	2008/09	2009/10	2010/11	2011/12	2012/13	Total
Benchmark Capital Expenditure	11.32	6.25	9.56	13.86	16.11	57.10
Actual Capital Expenditure	11.00	9.83	14.20	12.18	16.11	63.32
Variance	**-0.32**	**3.58**	**4.64**	**-1.68**	**0.00**	**6.22**

* 2008/09, 2009/10, 2010/11 & 2011/12 are actuals, while 2012/13 is as per final determination.

South Gippsland Water has been able to deliver a significant capital spend and will exceed benchmark levels over the period. Overall, the Corporation expects to substantially exceed the benchmark capital expenditure of $7.10 million by $6.22 million (11%).

The key capital projects completed/progressed during the period were:-

Table 6.3(b): Key Capital Projects Completed/Progressed 2008/09 – 2011/12

Project	**$M**
Replacement/rehabilitation of water mains	2.6
Foster Wastewater Treatment Plant improvements/wetlands	2.2
Meeniyan Wastewater Scheme/wetlands	6.2
Poowong/Loch/Nyora Wastewater Scheme	2.6
Sewer reticulation rehabilitation	1.6
Environmental obligations	1.3
Leongatha Wastewater Treatment Plant – sludge dewatering upgrade	2.1
Korumburra Wastewater Treatment Plant – sludge dewatering upgrade	2.2
Yarram water supply bore and pipeline	2.6
Vic Desalination Plant - water supply/ connection to Lance Creek Reservoir works	4.4
Toora water supply clearwater storage	2.1
Total	**$29.9M**

As detailed in Table 6.3(b) above a number of key capital works projects were either delivered via different solutions (the Tarra offstream storage outcomes were obtained via construction of the Yarram water supply bore and pipelines) or have been deferred/delayed (Poowong/Loch/Nyora wastewater scheme has experienced significant regulatory and process delays and is currently the subject of a planning tribunal hearing prior to construction works commencing). A number of other projects were not envisaged during the 2008 price determination, i.e. Toora Water Supply clearwater storage.

6.4 Proposed Capital Expenditure

Table 6.4(a) Capital expenditure forecast by asset category, details historical and forecast capital expenditure from 2008/09 to 2017/18. The figures demonstrate 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, including wastewater plant upgrades, trade waste systems, dams upgrades, and water supply augmentations (both quality and quantity).

The gross capital expenditure forecast for the third regulatory period, at $71.99M, still substantially exceeds net cash flows from operations, meaning that South Gippsland Water will continue to draw down considerable amounts of debt in order to finance capital works programs.

Table 6.4(a): Capital Expenditure Forecast by Asset Category

	SECOND REG PERIOD					THIRD REG PERIOD				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Capital Expenditure Summary (Including New Initiatives)	$m, 01/01/13									
Water	6.47	3.79	5.12	3.85	6.39	3.05	5.67	7.50	8.96	4.81
Sewerage	4.53	6.04	9.08	8.34	9.72	6.71	10.61	12.19	9.00	3.50
Recycled Water	-	-	-	-	-	-	-	-	-	-
Waterways	-	-	-	-	-	-	-	-	-	-
Diversions	-	-	-	-	-	-	-	-	-	-
Bulk Water	-	-	-	-	-	-	-	-	-	-
Rural Water	-	-	-	-	-	-	-	-	-	-
Total prescribed BAU capex	11.00	9.83	14.20	12.18	16.11	9.76	16.27	19.69	17.96	8.31
Government contributions	1.79	-	1.05	0.49	-	0.35	3.37	5.54	6.96	3.20
Customer contributions	0.41	0.62	0.78	0.63	0.52	1.60	0.58	0.57	0.53	0.91
Gifted Assets	2.08	6.51	1.12	1.43	1.67	1.10	1.10	1.10	1.10	1.10
Proceeds from disposals	0.39	0.47	0.54	0.73	0.40	0.58	0.58	0.58	0.58	0.58
Written down value of assets disposed	0.34	0.84	0.29	0.60	0.40	0.58	0.58	0.58	0.58	0.58

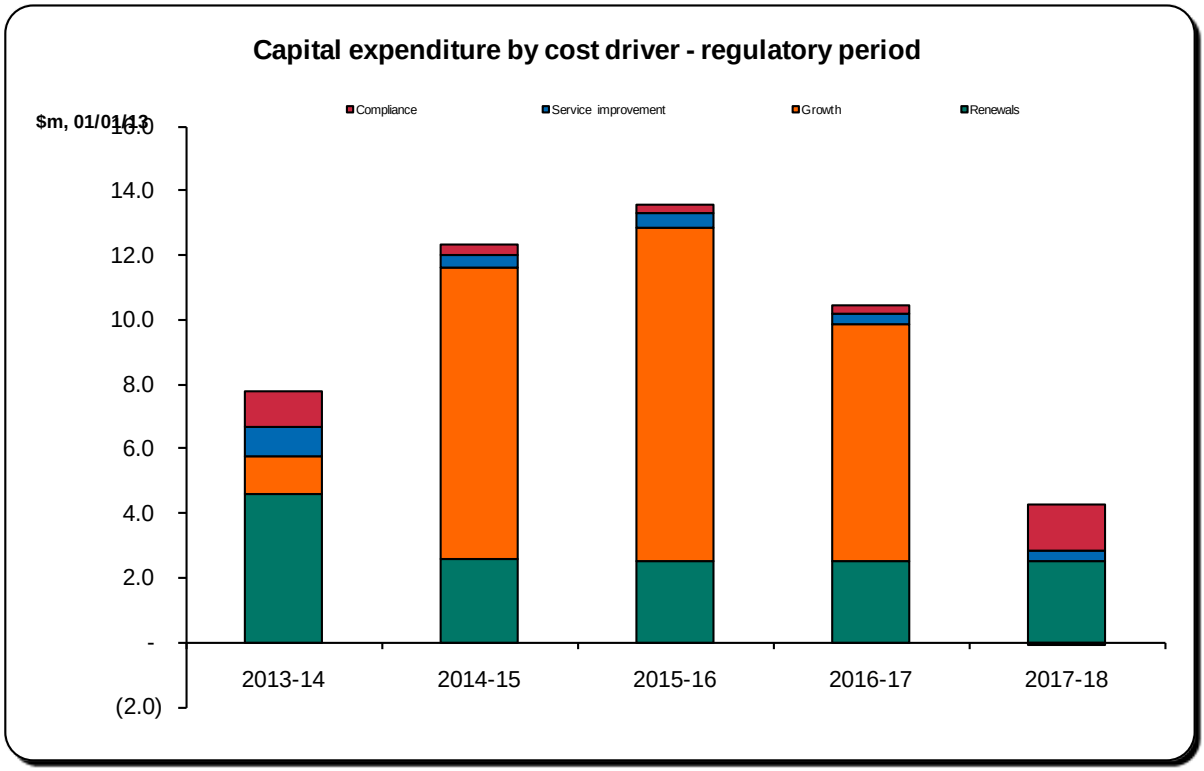
Table 6.4(b): Capital Expenditure Summary

	THIRD REG PERIOD				
	2013-14	2014-15	2015-16	2016-17	2017-18
Capital Expenditure Summary (Including New Initiatives)	$m, 01/01/13				
Net capital expenditure - renew als	4.58	2.57	2.49	2.51	2.49
Net capital expenditure - grow th	1.17	9.04	10.36	7.32	(0.06)
Net capital expenditure - improved service	0.94	0.38	0.48	0.38	0.38
Net capital expenditure - compliance	1.12	0.33	0.25	0.25	1.39
Government contributions	0.35	3.37	5.54	6.96	3.20
Customer contributions	1.60	0.58	0.57	0.53	0.91
Total prescribed BAU capex	**9.76**	**16.27**	**19.69**	**17.96**	**8.31**
Regulatory Depreciation	0.08	0.29	0.56	0.81	0.96
Return on assets	0.20	0.70	1.34	1.92	2.25
Gifted Assets	1.10	1.10	1.10	1.10	1.10
Proceeds from disposals	0.58	0.58	0.58	0.58	0.58
Written dow n value of assets disposed	0.58	0.58	0.58	0.58	0.58

Graph 6.4(c) below demonstrates the key cost drivers of forecast capital expenditure.

The proposed capital expenditure is predominately driven by growth (the Poowong, Loch and Nyora (PLN) Small Country Town Sewerage Scheme and headworks augmentations, such as construction of the Northern Towns Supply Connection), while compliance (Foster Wastewater Treatment Plant upgrades), renewals (water/wastewater mains rehabilitation/ water and wastewater plant works) comprise the bulk of the remainder.

Graph 6.4(c): Capital Expenditure Forecast by Cost Driver



Key drivers of capital expenditure

Table 6.5(a) 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 the regulatory period.

6.5 Major Projects

Table 6.5(a): Major Projects Identified in Water Plan III - 5 Year Capital Expenditure 2013/14 – 2017/18

Major Project Reason/Driver	Project Description	Delivery Date	Water Plan Expenditure
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. A project required under the Statement of Obligations.	Domestic wastewater will be delivered to a new lagoon wastewater treatment plant that will have sufficient capacity and a capability to accommodate growing population levels.	2013/14 to 2016/17	$28.6M
Northern Towns Supply Connection Works – Lance Creek to Korumburra: Recommended as the preferred option in the WSDS Business Case assessing future supply options for SGW northern towns to connect the Korumburra to Lance Creek as well as to the Melbourne Supply System.	Construction of treated water trunk supply main and booster pump station from Lance Creek Water Treatment Plant (WTP) to the existing Clear Water Storage at Korumburra WTP.	2014/15 to 2016/17	$17.6M (offset by yet to be confirmed Government funding)
Northern Towns Supply Connection Works – Korumburra to Poowong: Recommended as the preferred option in the Business Case assessing future supply options for SGW northern towns to connect the Little Bass (Poowong, Loch & Nyora) water supply system to Lance Creek as well as to the Melbourne Supply System.	Construction of treated water trunk supply main and booster pump station from existing Clear Water Storage at Korumburra WTP to the existing Clear Water Storage at Poowong WTP.	2015/16 to 2017/18	$3.8M (offset by yet to be confirmed Government funding)
Reticulation Sewer Replacement/Rehabilitation: To rehabilitate/replace sewer mains that are assessed to be past their economic life.	Reticulation sewer rehabilitation/replacement works including pipeline replacement/relining & manhole repairs/replacement on an agreed established priority need basis.	Ongoing	$3.0M
Vehicle Replacement: South Gippsland Water's vehicle fleet requires regular replacement (due to the large service area and geographically spread assets) in accordance with an optimised policy position.	Replacement of the SGW vehicle fleet in line with vehicle replacement policy.	Ongoing	$4.3M
Water Renewals/Replacement: To rehabilitate/replace water mains that are assessed to be past their economic life.	Water main replacement program based on agreed established priority need basis. Works include the progressive replacement of asbestos cement (AC) pipes installed up to the 1970s.	Ongoing	$2.5M
Leongatha Wastewater Treatment Plant – Refurbish de-commissioned Digestion System Sludge digestion facilities that will allow the treatment plant to achieve EPA discharge licence conditions.	Re-furbish existing de-commissioned anaerobic digester in order to reinstate sludge digestion facilities at the WWTP.	2013/14	$2.1M
Foster WWTP – Rising Main Pipeline and Storage: The existing Foster WWTP currently has difficulty complying with EPA licence discharge parameters for suspended solids and *E.coli*. Biological and hydraulic overloading problems contribute to algal growth and insufficient detention time to achieve disinfection requirements, leading to licence non compliance.	Construction of rising main pipeline and new pump station to transfer treated wastewater from existing plant to new maturation and reuse facilities on land to the south west of the existing WWTP.	2017/18	$1.2M
Wonthaggi Sewer System Upgrades: Overall upgrade and augmentation is required to address the existing deficiencies associated with the Wonthaggi sewer reticulation system and to cater for the rapid escalating current and future targeted development within the township.	A staged improvement implementation program over a 50 year horizon for augmenting the Wonthaggi sewerage system	Ongoing	$1.3M
Environmental Obligations (EPA) - (Duty/Standby, Pump station Upgrades): Ongoing program established to upgrade existing and ageing sewer pump stations to meet EPA obligations with regard to control of spillage and containment up to a 1 in 5 year return storm duration.	Programmed works include installation of detention storages, alarm diallers/telemetry systems, alternative power supply configuration (generator input) and upgrade of pumps.	Ongoing	$1.3M

The most significant projects are:

- Poowong Loch and Nyora sewerage Scheme $28.6M
- Melbourne Supply System Connection to Northern Towns (Korumburra and Poowong, Loch, and Nyora) $21.2M
- Reticulation Sewer Replacement/Rehabilitation $3.0M

The Poowong, Loch and Nyora Sewerage Scheme is a project nominated by the Minister for Water under the Country Towns Sewerage Program and required under South Gippsland Water's Statement of Obligations.

The Northern Towns Supply Connection is a key project in the Corporation's Water Supply Demand Strategy (WSDS) and was identified in a separate business case as the preferred option to provide future supplies to South Gippsland Water's northern towns. The project is assumed to be fully funded by yet to be confirmed Government funding, therefore has no price impact in this Water Plan.

The Reticulation Sewer Replacement/Rehabilitation works include pipeline replacement/relining & manhole repairs/replacement on an agreed established priority need basis across the region.

6.6 Prudent and Efficient Capital Expenditure

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 and included a business case assessment regarding the most efficient provision of water to the Corporation's northern towns.

Developing rural regional townships in Poowong, Loch and Nyora, require the underlying support wastewater infrastructure system to cater for expanding development and address public health and environmental issues related to non performing septic systems. Detailed consultants reports have addressed the optimum configuration requirements, environmental and cultural heritage issues, and recent detailed design reports have identified the latest technological treatment approach and pipeline solution 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 current 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 6.6(a) details the major sources for ensuring that proposed capital expenditure is both prudent and efficient

Table 6.6(a): Prudent and Efficient Capital Expenditure Levels – Major Projects Identified in Water Plan III

PRUDENT AND EFFICIENT CAPITAL EXPENDITURE LEVELS - MAJOR PROJECTS IDENTIFIED IN WATER PLAN 3	
Project	**Report Title**
Poowong/Loch/Nyora Sewerage Scheme	SGW Business Case Document - Poowong Loch, and Nyora (PLN) Sewerage Scheme - September 2012
Northern Towns Supply Connection works - Lance Creek to Korumburra	SGW Business Case Document - Northern Towns Supply Connection Works -Lance Creek to Korumburra & Korumburra to Poowong & Dosing Plant - September 2012
Northern Towns Supply Connection works - Korumburra to Poowong	SGW Business Case Document - Northern Towns Supply Connection Works -Lance Creek to Korumburra & Korumburra to Poowong & Dosing Plant - September 2012
Reticulation Sewer Replacement / Rehabilitation	SGW Business Case Document– Reticulation Sewers Rehabilitation, Infiltration Curtailment & Relining - September 2012
Vehicle Replacement	Program relates to vehicle turnover based on fleet size and market economics
Water Renewals/Replacement	SGW Business Case Document -Replacement/Rehabilitation of Water Mains - September 2012
Leongatha WWTP Digester	SGW Business Case Document -Leongatha WWTP Digester - September 2012
Foster WWTP - Rising main Pipeline & Storage	SGW Business Case Document - Foster WWTP Upgrade - September 2012
Wonthaggi Sewer system upgrades.	SGW Business Case Document - Wonthaggi Sewer System Upgrades - September 2012
Environmental Obligations (EPA) - (Duty / Standby, Pumpstation upgrades	SGW Business Case Document - Environmental Obligations (EPA) - (Duty / Standby, Pumpstation upgrades - September 2012

6.7 Customer Consultation Regarding Major Capital Projects

South Gippsland Water consulted customers, during two rounds of focus groups (March and August 2012) and two separate surveys (April and August 2012, see chapter 14 for more details) regarding major capital expenditure projects.

In the focus group sessions in March 2012, participants were given a broad overview of the major capital works and the strategies and drivers underlying these projects. Following this presentation, participants could ask questions about the projects and review information provided in their feedback form about each project. In general there was broad support from all groups which recognised that investment into capital infrastructure was required.

Participants in all groups strongly supported ongoing maintenance and up-grading of old infrastructure as core elements of South Gippsland Water's service standards. During the August 2012 focus groups customers were asked if they felt the proposed capital expenditure projects and investment, was; 'Too little', 'About right', 'Too much' or 'Unsure'. 66% felt that this investment level was 'About right' and 34% were 'Unsure' or did not respond.

Only limited information could be provided in our surveys; the August survey included a table outlining the top 10 capital expenditure projects, their driver and their cost and asked once again what customers felt about this investment level. 43.6% of survey respondents felt that the investment level was 'About right", 0.8% 'Too Little, 27.1% 'Too Much' and 28.6% were 'Unsure'.

The Northern Towns Supply Connection project is the most contentious of the capital expenditure projects and is driven by the need under the current Water Supply Demand Strategy (WSDS) to ensure long term supplies for the region. As a result, consultation on this topic tended to be focussed on this project, and this project generated a lot of discussion and community comment in our survey's and letters regarding the Water Plan. It is noted across result from all consultation methods, that when funding is removed, support for investment in the Northern Towns Supply Connection works is diminished based on cost, however, there is still support. See Table 6.7(a).

Much of the community comment collected from consultation was in relation to the connection to Melbourne Supply and therefore water from the Victorian Desalination Plant at Wonthaggi. In general, these comments were quite often negative and those who opposed the construction of the desalination plant tended to believe that the Northern Towns Supply Connection was not necessary and a way for the State Government to 'force' South Gippsland Water to connect to the desalination plant and contribute to its costs. Many customers expressed a concern regarding the longer term cost of the connection.

Due to the nature of a survey, no discussion or education regarding the intricacies of the strategy to connect to the Melbourne Supply could be communicated. As a result, the Corporation sees the opinions provided by the focus group participants as being more informed on the topic than those garnered by the surveys, which still, however, demonstrated support. See Table 6.7(a).

Table 6.7(a): Consultation Results Summary – Capital Expenditure

After reviewing the capital expenditure projects do you feel that this investment into capital expenditure, $71.85M over 5 years is?	**Too Little**	**About Right**	**Too Much**	**Unsure**
August Focus Groups	0%	66%	0%	34%
August Survey	1%	44%	27%	28%
Support for Northern Towns Supply Connection (With Government Funding)	**Yes**	**No**	**Unsure or No response**	
March Focus Group	77%	9%	11%	
April Survey	53%	27%	20%	
August Focus Group	86%	3%	10%	
Support for Northern Towns Supply Connection (Without Government Funding)	**Yes**	**No**	**Unsure or No response**	
April Survey	42%	30%	28%	
August Focus Group	48%	21%	31%	
Support for the Poowong/Loch/Nyora Sewerage Scheme	**Yes**	**No**	**Unsure or No response**	
March Focus Group	14%	66%	17%	
August Focus Group	93%	3%	3%	
Support for the Foster Wastewater Treatment Plant Up-grade	**Yes**	**No**	**Unsure or No response**	
August Focus Group	83%	0%	17%	
Support for greater capital investment now (during wet years) to construct infrastructure that helps ensure supply during drought.	**Yes**	**No**	**Unsure or No response**	
August Focus Group	86%	8%	6%	
Is there still support for increased investment in water security if it meant higher tariffs	**Yes**	**No**	**Unsure or No response**	
August Focus Group	38%	28%	34%	

*It was noted that there were movements between focus group opinions, which can be influenced by a number of factors including, group composition, locality, supporting materials and general discussion on the day.

7. Revenue Requirement

Key Points

- South Gippsland Water has utilised the Essential Services Commission's (ESC) building block approach to identify the revenue requirement – reflecting operating expenditure and return on and of the regulatory asset base updated each year to reflect capital expenditure, asset disposals and depreciation.
- The average annual price increase across South Gippsland Water services is 1.8% (real) p.a. (a cumulative total of 9.3% over 5 years).
- The main components of the revenue requirement are operating expenditure (around $17M p.a.) and return on and of the regulatory asset base to 30/06/13 (around $8.5M p.a.).
- South Gippsland Water has utilised the ESCs benchmark weighted average cost of capital of 5.1% to prepare this Water Plan.

7.1 Introduction

In compliance with the ESC's regulatory 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 average annual price increase across South Gippsland Water services is 1.8% (real) p.a. that is, excluding inflation. The average annual increases proposed are:

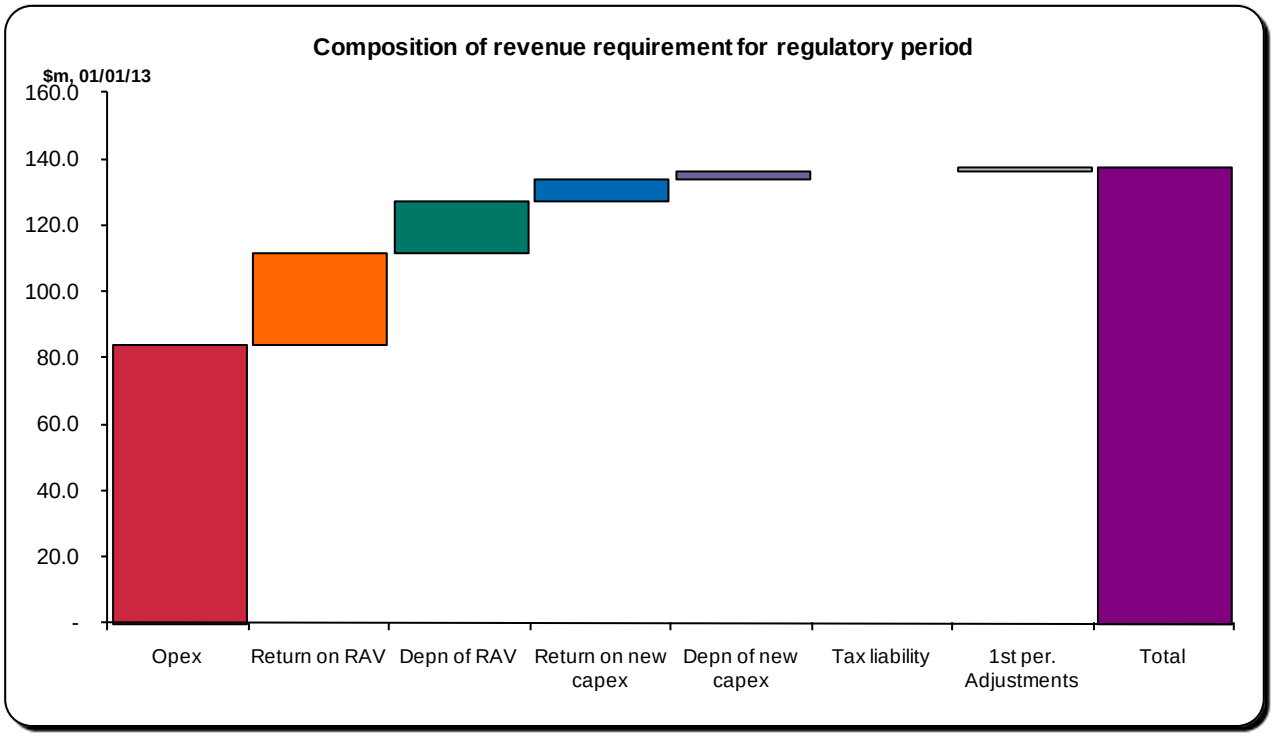
2013/14	1.6%
2014/15	1.7%
2015/16	1.7%
2016/17	2.1%
2017/18	1.9%
Cumulative	**9.3%**

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

- Operating expenditure;
- Return on assets to 30 June 2013;
- Regulatory depreciation of assets to 30 June 2013;
- Return on new assets;
- Regulatory depreciation of new assets;
- Adjustments from last period; and
- Tax liability.

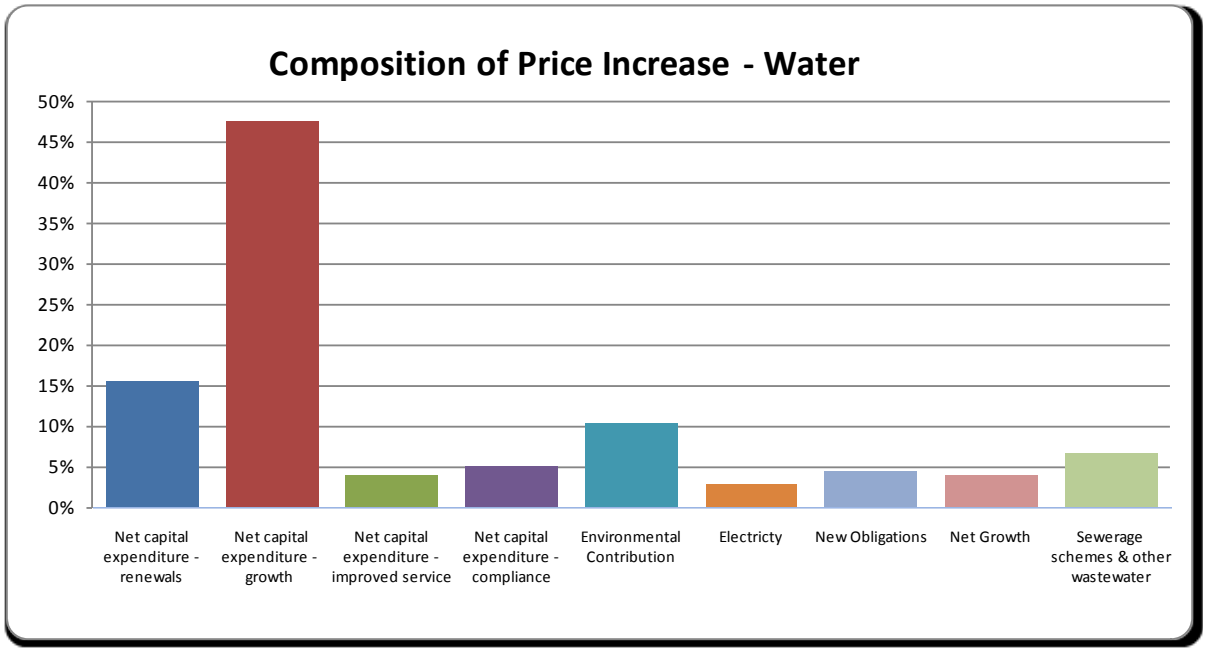
Graph 7.1(a) below, illustrates the composition of South Gippsland Water's revenue requirement over the regulatory period. The major components are operating expenditure (61%) and return on and of the RAB to 30th June 2013 (31%). This contrasts with the second regulatory period's revenue requirement where operating expenditure comprised 63% and existing assets comprised 28%.

Graph 7.1(a): Make-up of Revenue Requirement



Graph 7.1(b) details the composition of the price increase by major driver. It illustrates that capital expenditure (over 70%), and in particular that related to growth projects (over 48%), i.e. the Poowong, Loch and Nyora Sewerage Scheme, comprise the bulk of the tariff increase. It also demonstrates that increases in operating costs are not significant in terms of price impacts.

Graph 7.1(b): Composition of Price Increase



7.2 South Gippsland Water's Revenue Requirement

Table 7.2(a) highlights the composition and relative importance of the revenue requirement. Operating expenditure is generally constant at around $17.0M p.a., while the return of and on assets to 30/6/13 (return on assets to 30/6/13 – around $5.5M p.a. and regulatory depreciation of assets to 30/6/13 – around $3.2M) decreases over the Water Plan period as regulatory depreciation is recovered. The return of and on new assets increases over the regulatory period as new assets are commissioned.

The total revenue requirement varies from $26.18M for 2013/14 to $28.72M in 2017/18. The increase is predominately related to returns on and of new assets.

Table 7.2(a): Revenue Requirement

		THIRD REG PERIOD				
		2013-14	2014-15	2015-16	2016-17	2017-18
Revenue requirement	$m, 01/01/13					
Operating expenditure		16.64	16.72	17.12	16.92	17.02
Return on assets to 30/6/13		5.83	5.64	5.45	5.26	5.07
Regulatory depreciation of assets to 30/6/:		3.15	3.15	3.15	3.15	3.15
Return on new assets		0.20	0.70	1.34	1.92	2.25
Regulatory depreciation of new assets		0.08	0.29	0.56	0.81	0.96
Adjustments from last period		0.27	0.27	0.27	0.27	0.27
Tax liability		-	-	-	-	-
Total revenue requirement		**26.18**	**26.78**	**27.89**	**28.33**	**28.72**

It should be noted that South Gippsland Water is pursuing an adjustment for the recent undefined superannuation liability call of $1.1M brought to account in the 2011/12 financial statements.

7.3 Up-dating the Regulatory Assets Base (RAB)

Under the provisions of the Water Industry Regulatory Order (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).

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 $33.0 million at 1 January 2013 prices.

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

- Opening regulatory asset base;
- *Plus* forecast gross capital expenditure;
- *Less forecast government contributions;*
- *Les forecast customer contributions;*
- *Less forecast proceeds from disposed of assets;*
- *Less regulatory depreciation;*
- *Equals closing regulatory asset base.*

The value of the RAB at the start of the third regulatory period (1 July 2013) has been calculated based on actual outcomes for 2008/09 to 2011/12 and utilising benchmark capital expenditure from the ESC's June 2008 Price Determination for 2012/13.

7.4 Rolling Forward the Regulatory Asset Base

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 5.4 Capital expenditure) 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 7.4(a): Rolled Forward Regulatory Asset Base

		SECOND REG PERIOD					THIRD REG PERIOD				
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Rolled forward asset base	$m, 01/01/13										
Opening asset base		75.29	80.65	86.15	94.57	101.44	113.13	117.13	125.43	134.71	140.63
plus Gross capex		11.00	9.83	14.20	12.18	16.11	9.76	16.27	19.69	17.96	8.31
less Government contributions		1.79	-	1.05	0.49	-	0.35	3.37	5.54	6.96	3.20
less Customer contributions		0.41	0.62	0.78	0.63	0.52	1.60	0.58	0.57	0.53	0.91
less Proceeds from disposals		0.39	0.47	0.54	0.73	0.40	0.58	0.58	0.58	0.58	0.58
less Regulatory depreciation		3.05	3.23	3.40	3.46	3.49	3.24	3.45	3.72	3.97	4.12
Closing asset base		**80.65**	**86.15**	**94.57**	**101.44**	**113.13**	**117.13**	**125.43**	**134.71**	**140.63**	**140.13**

Government contributions reflect estimated grant receipts with respect to the Northern Towns Supply Connection ($21.42M over the regulatory period).

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 (NCCs).

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.

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

Asset class	Remaining Life	Book Value	% of total
Water Treatment Plants	16.58	28.87	0.11
Waste Water Treatment Plants	22.84	24.02	0.09
Pump Stations	13.67	1.58	0.01
Sewer Pump Stations	20.52	6.46	0.02
Basins	50.24	1.69	0.01
Tanks	23.84	4.31	0.02
Reservoirs	176.58	48.89	0.18
Bores	58.36	0.35	0.00
Water Mains	40.54	68.23	0.25
Sewer Mains	46.30	69.04	0.26
Manholes	33.03	6.86	0.03
Meters	11.23	0.80	0.00
Buildings	50.00	7.04	0.03
Plant & Equipment	10.00	2.24	0.01

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 7.4(c): Regulatory Depreciation

	SECOND REG PERIOD					THIRD REG PERIOD				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Regulatory Depreciation $m, 01/01/13										
Regulatory depreciation - Existing	2.93	2.93	2.93	2.74	2.47	3.15	3.15	3.15	3.15	3.15
Regulatory depreciation - New Assets	0.12	0.31	0.47	0.72	1.03	0.08	0.29	0.56	0.81	0.96
Regulatory depreciation - Total	3.05	3.23	3.40	3.46	3.49	3.24	3.45	3.72	3.97	4.12

7.5 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 of 5.1% provided by the ESC.

The ESC utilises the capital asset pricing model (CAPM) in calculating the WACC. Table 6.5(a) details the individual parameters adopted.

Table 7.5(a): Indicative WACC Assumptions

Parameters	ESC Forecast
Risk Free Rate (Real)	1.40%
Debt Premium	3.50%
Equity Premium	6.00%
Equity Beta	0.65
Gearing (Debt/Assets)	60.00%
Forecast Inflation	2.75%
Franking credit value	0.50
'Vanilla' After Tax WACC (Real)	5.10%

7.6 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 third regulatory period. As such, this component of the revenue requirement is zero.

8. Demand

Key Points

- South Gippsland Water has used the *Victoria in Future 2012* forecasts and its own historical data to determine growth forecasts.
- New customer growth is expected to be strong (approximately 1.6% p.a.), especially around coastal areas.
- Water storage availability is expected to be healthy with no restrictions envisaged.
- South Gippsland Water believes that permanent customer behavior change has manifested following significant customer education and engagement and that lower consumption patterns of the last four years will continue. South Gippsland Water customers use around 4.6 GLs of water p.a.
- Major customers advise that water consumption is forecast to reduce over the regulatory period, however, should higher demand be experienced South Gippsland Water could look to accelerate the Northern Towns Supply Connection capital project (reliant on government funding).
- Cistern, minor and major trade waste customers are forecast to remain relatively static during the Water Plan.
- Miscellaneous service categories are less than 2% of South Gippsland Water's revenue requirement.

8.1 Introduction

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 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, via the Statement of Obligations, has required water businesses to develop Water Supply Demand Strategies and participate in regional Sustainable Water Strategies. A Water Supply Demand Strategy has been produced to identify long term issues surrounding water augmentations, future growth scenarios 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 2012* 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 saving education, the effects of restrictions from long term drought and more recent return to wetter climatic conditions.

8.2 Summary of Demand Forecasts

Table 8.2(a) details the relevant demand forecasts for South Gippsland Water. It shows historical information since 2008/09 and estimates/projections to the end of the Water Plan i.e. 2017/18. While not detailed, estimates have been forecast for 10 years.

Factors that will impact on these forecasts include:

- Water storage availability given the changed supply conditions and better supply outlook (no restrictions are envisaged in forecasts);
- The impact on customer behaviour of previous high level restrictions, permanent water saving measures and tariff changes;
- Household growth (*Victoria In Future 2012* 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 initiatives in response to prior year water shortages and their future plans.

Table 8.2(a) shows that water and wastewater connections have grown at a higher rate than forecast in the second Water Plan. The variance is attributable to both a higher 2008/09 base than forecast, together with the higher than anticipated growth (mainly in coastal areas).

Total water consumption compared to estimated consumption in the second Water Plan shows fluctuating variations. For 2008/09, water consumption was 7.0% lower than estimated, predominately as a result of low residential and non residential usage. This trend continued over 2009/10 to 2010/11 with total water consumption by 12.1% and 11.3% respectively. For 2011/12 there has been a marginal recovery however, consumption was still 10.6% below Water Plan demand estimates. Higher Murray Goulburn and other major customer demand was more than offset by lower consumption from residential and non residential customers and agreement (typically farming enterprises) customers.

It is forecast that, water consumption for 2012/13 will be lower than the Water Plan estimate by some 10.6%. This is attributed to the prolonged drought conditions up until 2009 and resultant permanent changes in customer behavior.

Following significant customer education and engagement, and in particular with major customers, it is envisaged that the lower consumption patterns will continue to result for the third regulatory period.

Wastewater volumes are forecast to remain relatively consistent, as a proportion of water consumption. It should be noted that the effects 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.

The *Victoria In Future 2012* forecasts and the Corporation's own historical data have been utilised to provide growth forecasts for new customers and estimate water demand following changes to customer behaviour due to a number of reasons, including awareness on climate change/variability, implementation of permanent water savings rules, water saving education and programs, etc.

Table 8.2(a): Summary of Actual and Forecast Demand – 2008/09 to 2017/18

Year	Unit	2008/09			2009/2010			2010/2011			2011/2012			2012/2013			2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
		Actual	Water Plan	Variance	Actual	Water Plan	Variance	Actual	Water Plan	Variance	Actual	Water Plan	Variance	Forecast	Water Plan	Variance	Forecast	Forecast	Forecast	Forecast	Forecast
Water Connections																					
Residential	No.	15,577	15,425	152	15,924	15,660	264	16,273	15,899	374	16,592	16,142	450	16,876	16,380	496	17,144	17,417	17,696	17,976	18,258
Non Residential	No.	3,178	3,171	7	3,187	3,193	-6	3,200	3,216	-16	3,233	3,239	-6	3,259	3,262	-3	3,277	3,295	3,313	3,331	3,349
Total	No.	18,755	18,596	159	19,111	18,853	258	19,473	19,115	358	19,825	19,381	444	20,135	19,642	493	20,421	20,712	21,009	21,307	21,607
Wastewater Connections																					
Residential	No.	14,022	13,849	173	14,359	14,049	310	14,677	14,436	241	15,079	15,106	-27	15,463	15,314	149	15,742	16,027	16,316	16,598	16,872
Non Residential	No.	1,126	1,210	-84	1,076	1,220	-144	1,108	1,251	-143	1,137	1,316	-179	1,158	1,327	-169	1,167	1,176	1,185	1,194	1,203
Total	No.	15,148	15,059	89	15,435	15,269	166	15,785	15,687	98	16,216	16,422	-206	16,621	16,641	-20	16,909	17,203	17,501	17,792	18,075
Urban Water Consumption																					
Murray Goulburn	kL's	931,261	772,200	159,061	888,742	764,478	124,264	926,968	758,362	168,606	922,899	752,295	170,604	874,000	748,534	125,466	830,300	788,785	749,346	749,346	749,346
Other Major Customer	kL's	434,026	469,260	-35,234	401,625	464,567	-62,942	492,699	460,851	31,848	544,430	457,164	87,266	477,500	454,878	22,622	449,375	449,375	449,375	449,375	449,375
Agreement Customers	kL's	613,760	703,000	-89,240	532,423	704,000	-171,577	449,081	705,000	-255,919	441,549	707,000	-265,451	448,715	708,000	-259,285	450,759	452,795	454,823	456,843	459,388
Residential & Non-res.	kL's	#######	#######	-390,881	#######	#######	-502,988	#######	#######	-518,550	#######	#######	-529,350	#######	#######	-428,448	#######	#######	#######	#######	#######
Total	kL's	#######	#######	-356,294	#######	#######	-613,243	#######	#######	-574,015	#######	#######	-536,931	#######	#######	-539,645	#######	#######	#######	#######	#######
Developer Lots																					
Water	No.	359	245	114	366	252	114	337	256	81	284	260	24	288	246	42	284	288	294	299	297
Wastewater	No.	209	208	1	365	211	154	335	214	121	526	217	309	285	205	80	285	291	296	301	281
Wastewater Volumes	kL's	3,811	3,540	271	3,786	3,545	241	4,598	3,552	1,046	4,063	3,560	503	3,975	3,568	407	3,941	3,936	3,934	3,966	3,998
Miscellaneous Revenues																					
Inspection Fees	$'s	69,000	55,000	14,000	95,000	55,000	40,000	80,000	55,000	25,000	84,000	55,000	29,000	85,000	55,000	30,000	85,000	85,000	85,000	85,000	85,000
Information Statements	$'s	56,000	49,000	7,000	78,000	49,000	29,000	62,000	49,000	13,000	52,000	49,000	3,000	57,000	49,000	8,000	57,000	57,000	57,000	57,000	57,000
Water Tapping Fees	$'s	128,000	103,000	25,000	154,000	103,000	51,000	158,000	103,000	55,000	99,000	103,000	-4,000	125,000	103,000	22,000	125,000	125,000	125,000	125,000	125,000

8.3 Individual demand forecasts

Population and household growth

The most recent Census of Population and Housing took place on Tuesday, 9 August 2011, 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 South Gippsland Water's serviced towns.

The three relevant LGAs are Bass Coast, South Gippsland and Wellington.

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

- A substantial part of the Bass Coast LGA encompasses Phillip Island which is not part of the Corporation's serviced region; and
- The towns in the 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 the major centres of Leongatha and Korumburra and provides a good nexus to growth in these towns.

According to the *Victoria in Future 2012* data, population and household growth for the various LGAs has and is projected to increase as follows.

Bass Coast

Table 8.3(a): Bass Coast – Population and Households

Population and households

	2011	2016	2021	2026	2031
Total Population	32,056	35,763	40,037	45,190	49,946
Pop. in private dwellings	31,447	35,087	39,286	44,330	48,937
Households	13,319	15,390	17,563	20,123	22,541
Average household size	2.361	2.280	2.237	2.203	2.171
Household types	**2011**	**2016**	**2021**	**2026**	**2031**
Couple-only	4,537	5,393	6,289	7,288	8,181
Family with children	4,092	4,462	4,854	5,345	5,837
One-person	4,292	5,092	5,922	6,936	7,907
Other	398	443	497	555	617

	2011-2031	2011-16	2016-21	2021-26	2026-31
Change in population					
Net	17,890	3,707	4,273	5,154	4,755
Average annual	2.2%	2.2%	2.3%	2.5%	2.0%
Change in households					
Net	9,222	2,071	2,173	2,561	2,418
Average annual	2.7%	2.9%	2.7%	2.8%	2.3%

Observations: Bass Coast is projected to maintain a population growth rate 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. An increase in the proportion of couple-only and one-person households will further decrease average water consumption per household.

South Gippsland

Table 8.3(b): South Gippsland – Population and Households

Population and households

	2011	2016	2021	2026	2031
Total Population	28,452	29,116	30,187	31,351	32,509
Pop. in private dwellings	27,945	28,544	29,552	30,624	31,656
Households	11,296	11,854	12,500	13,149	13,786
Average household size	2.474	2.408	2.364	2.329	2.296
Household types	**2011**	**2016**	**2021**	**2026**	**2031**
Couple-only	4,006	4,342	4,697	4,979	5,178
Family with children	3,888	3,851	3,760	3,710	3,767
One-person	3,142	3,399	3,773	4,184	4,554
Other	259	263	271	277	286

	2011-2031	2011-16	2016-21	2021-26	2026-31
Change in population					
Net	4,057	664	1,071	1,164	1,158
Average annual	0.7%	0.5%	0.7%	0.8%	0.7%
Change in households					
Net	2,490	558	646	650	636
Average annual	1.0%	1.0%	1.1%	1.0%	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 impacting on household size and average water consumption per household.

Wellington

Table 8.3(c): Wellington – Population and Households

Population and households

	2011	2016	2021	2026	2031
Total Population	43,920	44,742	46,013	47,475	49,276
Pop. in private dwellings	42,670	43,338	44,453	45,688	47,180
Households	17,459	18,150	18,968	19,797	20,743
Average household size	2.444	2.388	2.344	2.308	2.275
Household types	**2011**	**2016**	**2021**	**2026**	**2031**
Couple-only	5,578	5,994	6,446	6,797	7,079
Family with children	6,325	6,225	6,039	5,928	5,973
One-person	5,153	5,526	6,076	6,663	7,272
Other	403	405	407	409	419

	2011-2031	2011-16	2016-21	2021-26	2026-31
Change in population					
Net	5,356	822	1,270	1,462	1,801
Average annual	0.6%	0.4%	0.6%	0.6%	0.7%
Change in households					
Net	3,284	691	818	829	945
Average annual	0.9%	0.8%	0.9%	0.9%	0.9%

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. This will impact on average water consumption per household.

8.4 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 service requirements.

Water customer growth – Southern district

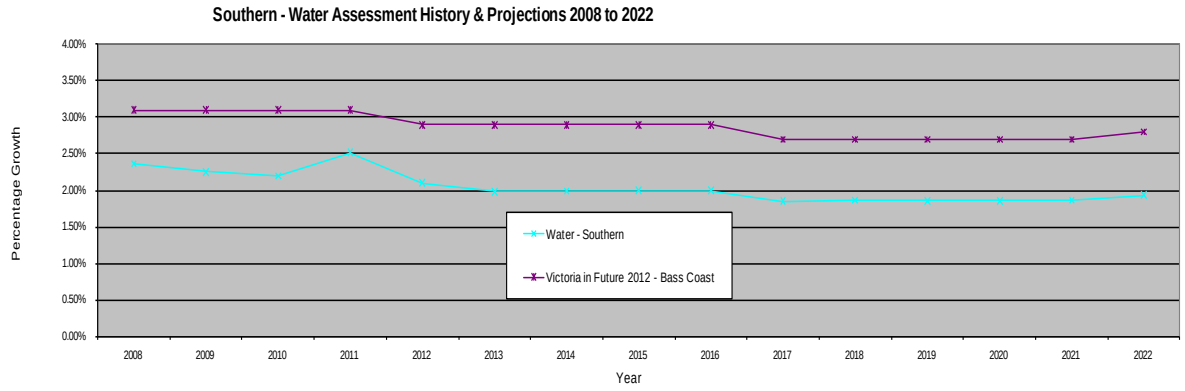
The "Victoria in Future 2012 Bass Coast LGA" statistical information estimates the projected rate for the net average annual change in households as 2.9% between the period 2011 and 2016, reducing to 2.7% from 2016 to 2021. The actual net average annual change was 3.1% from 2006 to 2011.

The actual growth experienced by the Corporation for the number of connections to the water supply network (Southern District) during the period 2005/06 to 2010/2011 was 1,032 at an average annual rate of 2.3%. This is markedly different (proportionally around 7%) to the "Victoria in Future 2012 Bass Coast LGA" 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 fast growing towns of Cowes, San Remo, Newhaven, etc.

A proportional weighting of 72.5% has been applied to the projected "Victoria in Future 2012 Bass Coast" estimate of 2.9% between the period 2011 and 2016 to arrive at an average annual rate of growth for residential customers of 2.1%. 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 2.0% for the Southern district. As demonstrated in the following graph, the rate of growth decreases in 2016/17 consistent with the *Victoria in Future 2012* estimates.

Graph 8.4(a): Southern – Water Assessment History & Projections 2008 to 2018



Water customer growth – East/West district

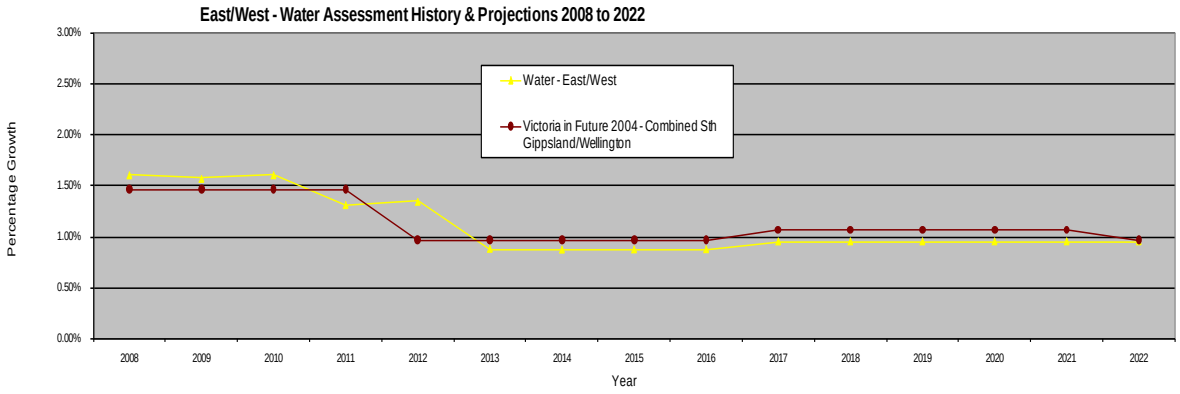
The actual growth experienced by the Corporation for the number of connections to the water supply network (East/West District) during the period 2005/2006 to 2010/11 was 718 at an average annual rate of 1.5%. This varies to the "Victoria in Future 2012 South Gippsland and Wellington LGAs" household growth figures of 1.6% and 0.7% respectively. The correlation, however, is more evident on a weighted average annual rate of 1.47% for both LGA's.

The "Victoria in Future 2012 South Gippsland and Wellington LGAs" statistical information estimates the projected rate for the net average annual change in households as 1.0% and 0.8% respectively between the period 2011 and 2016, increasing to 1.1% and 0.9% respectively from 2016 to 2021. As stated, the actual net average annual change was 1.5% from 2001 to 2006.

A weighted average annual growth rate for residential customers of 1.0% has been applied between the period 2011 and 2016. In turn South Gippsland Water has utilised historical data to arrive at an average annual rate of growth for commercial customers of 0.45%.

This results in a weighted average annual rate of growth of 0.88% for the East/West district. As demonstrated in the following graph, the rate of growth in 2016/17 is consistent with the *Victoria in Future 2012* estimates.

Graph 8.4(b): East/West – Water Assessment History & Projections 2008 to 2018



8.5 Summary of Water Customer Growth

Resultant water customer growth for the South Gippsland Water region as a whole is shown in Table 8.5(a) below.

Table 8.5(a): Summary of Water Customer Growth – 2012/13 to 2017/18

Year	Unit	2013/2014 Forecast	2014/2015 Forecast	2015/2016 Forecast	2016/2017 Forecast	2017/2018 Forecast
Water Connections						
Residential	No.	17,144	17,417	17,696	17,976	18,258
Non Residential	No.	3,277	3,295	3,313	3,331	3,349
Total	No.	20,421	20,712	21,009	21,307	21,607

8.6 Wastewater Customer Growth

The actual growth experienced by the Corporation for the number of connections to the wastewater network during the period 2005/6 to 2010/11 was 1,580 at an average annual rate of 2.1%. This varies to the "Victoria in Future 2012 Bass Coast, Gippsland and Wellington LGAs" household growth figures of 3.1%, 1.6% and 0.7% respectively. The correlation, however, is more evident, however, still proportionally different (around 90%) on a weighted average annual household growth rate of 2.3% for the three LGAs. This proportional variance is attributed to the Phillip Island demographics previously mentioned.

The "Victoria in Future 2012 Bass Coast, South Gippsland and Wellington LGAs" statistical information estimates the projected rate for the net average annual change in households as 2.9%, 1.0% and 0.8% respectively between the period 2011 and 2016, changing to 2.7%, 1.1% and 0.9% respectively from 2016 to 2021. As stated, the actual net average annual change was 2.1% from 2006 to 2011.

A weighted average (between the three LGAs) annual growth rate for residential customers of 1.81% has been applied between the period 2011 and 2016. In turn South Gippsland Water has utilised historical data to arrive at an average annual rate of growth for commercial customers of 0.75%.

This results in a weighted average annual rate of growth of 1.74%, excluding the effect of the commissioning of Small Town Sewerage Schemes. As demonstrated in the following graph, the rate of growth varies in 2016/17 consistent with the *Victoria in Future 2012* estimates.

Graph 8.6(a): SGW – Wastewater Assessment History & Projections 2008 to 2016

** Note the above graph excludes the impact of new Small Town Sewerage Schemes planned for Alberton and Poowong/Loch/Nyora.*

Wastewater customer growth for the South Gippsland Water region is shown in Table 7.6(b) below.

Table 8.6(b): Summary of Wastewater Customer Growth – 2012/13 to 2017/18

Year	Unit	2013/2014 Forecast	2014/2015 Forecast	2015/2016 Forecast	2016/2017 Forecast	2017/2018 Forecast
Wastewater Connections						
Residential	No.	15,742	16,027	16,316	16,598	16,872
Non Residential	No.	1,167	1,176	1,185	1,194	1,203
Total	No.	16,909	17,203	17,501	17,792	18,075

8.7 Developer lots

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

Table 8.7(a): Summary of Developer Lots Growth – 2012/13 to 2017/18

Year	Unit	2013/2014 Forecast	2014/2015 Forecast	2015/2016 Forecast	2016/2017 Forecast	2017/2018 Forecast
Developer Lots						
Water	No.	284	288	294	299	297
Wastewater	No.	285	291	296	301	281

8.8 Urban Water Consumption

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.

Types of demand

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

- Residential demand – consists of domestic household demand;
- Non residential 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; and
- 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 2012* household growth forecasts.

The weighted average annual growth rates utilised are:

	Residential	**Non-Residential***
Southern District:	2.10% p.a.	0.80% p.a.
East/West District:	1.00% p.a.	0.45% p.a.

*Includes Agreement and Concessional customers

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

Current demand

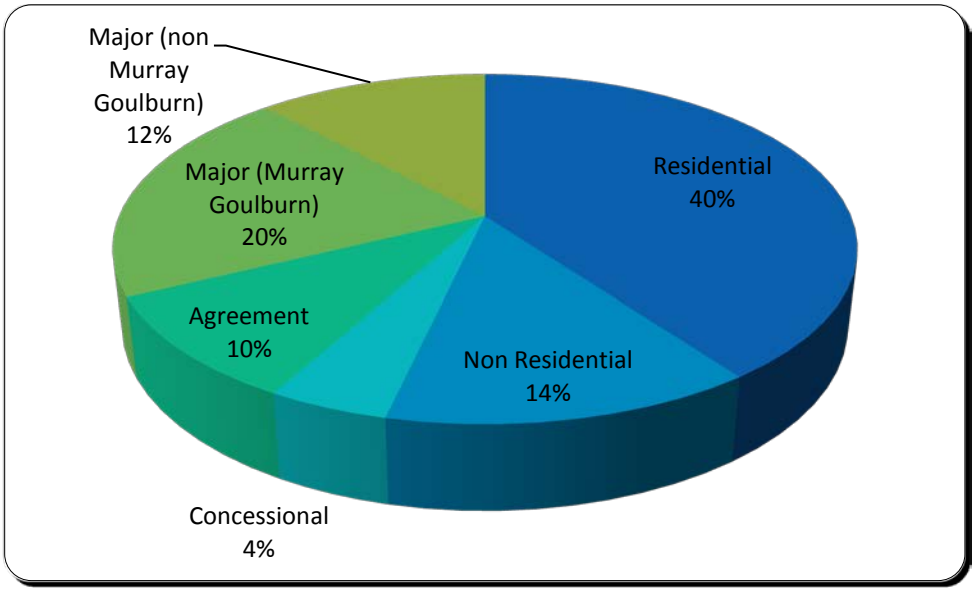
Current indicative consumption for water across South Gippsland Water's supply systems is summarised below in Table 7.8(a) and Graph 7.8(b). The figures in the table represent the average annual metered water sales.

Table 8.8(a): Average Annual Metered Demand (2008/09 to 2011/12)

Supply System	Towns Currently Supplied	Residential Demand (ML/yr)	Non Residential Demand (ML/yr)	Concessional Demand (ML/yr)	Supply by Agreement Demand (ML/yr)	Major Industrial Demand (ML/yr)	Total Demand (ML/yr)
Little Bass River	Poowong, Loch, Nyora	67	8	8	43	29	155
Coalition Creek	Korumburra	217	44	29	12	250	552
Ruby Creek	Leongatha, Koonwarra	334	119	39	15	998	1,505
Lance Creek	Wonthaggi, Cape Paterson, Inverloch	868	131	75	178	157	1,409
Tarwin River East Branch	Dumbalk	8	2	1	1	0	12
Tarwin River	Meeniyan	29	4	2	5	0	40
Deep Creek/Foster Dam	Foster	68	39	17	7	0	131
Battery Creek	Fish Creek	12	4	2	63	0	81
Agnes River	Toora, Welshpool, Port Welshpool, Port Franklin	61	171	12	64	33	341
Tarra River	Yarram, Alberton, Port Albert, Devon North	149	107	60	20	0	336
TOTAL		1,813	629	245	408	1,467	4,562

South Gippsland Water has historically (last four years) provided around 4.5GL/yr of water, of which 54% is used to supply residential and non residential customers, 32% supplies major industrial customers and the remaining 14% is utilised by concessional and supply by agreement customers.

Graph 8.8(b:) Typical South Gippsland Water, Proportional Water Consumption by Customer Type



Average water consumption, including demand initiatives

Due to water shortages as a result of state wide drought conditions, over the second regulatory period South Gippsland Water undertook measures in order to reduce per capita demand over time. South Gippsland Water is a member of the savewater!^{TM} alliance, which represents a majority of Victorian water corporations.

For estimating the effect of demand reduction initiatives, South Gippsland Water relied 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. It is acknowledged that there are some differences between consumer behaviour in Melbourne and South Gippsland, however, this adoption of technical information from Melbourne with justifiable adjustments is considered appropriate.

Historically, 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. Customer rebate schemes for water conservation products has been operating with some of the current rebates applied to customer's water bills for products such as water efficient showerheads, dual flush toilets, grey water systems and water tanks connected to the toilet. A small business rebate scheme has also been in operation since July 2011 for businesses with 20 employees or less, for 50% of the total expenditure up to a maximum rebate of $2,000. For example businesses can claim a rebate on items such as commercial glass washers, water efficient washing machines and dual flush toilets.

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 has promoted water conservation through local measures, such as the inclusion of an individual's water consumption information on bills and via newsletters and press releases.

8.9 Average Water Consumption

Average water consumption patterns have steadily declined over the last 10 years. The following graphs demonstrate (from 2008/09 to 2011/12) decreases of 8.0% (residential) and 16.2% (non-residential including agreement and concessional customers but excluding major customers). Since 2002/03 average water consumption has reduced by a massive 29.6% (residential) and 30.2% (non-residential).

It is recognised that the lower 2006/07 and 2007/08 average consumption patterns were underpinned by the prevalence of widespread Stage 4 water restrictions.

However, widespread high level water restrictions were removed progressively throughout South Gippsland Water's various water systems during 2007 and 2008. Only the Tarra River

System (servicing Yarram, Devon North, Alberton and Port Albert and approximately 9% of the customer base) experienced water restrictions of any nature during 2008/09 with all restrictions having been removed (except for Permanent Water Saving Rules) by the end of May 2009.

Water consumption has been materially lower than forecast (at around 10% p.a.) over the first four years of the second regulatory period from 2007/08 to 2011/12. It is interesting to note that climatic conditions have varied from extreme dry to extreme wet in this time. Given the stability of reduced consumption over the period, South Gippsland Water is of the view that permanent customer behaviour change has manifested following the significant customer education and engagement, including the installation of water saving appliances and devices across the entire customer demographic.

It is forecast that continuing lower consumption patterns will be the norm moving forward.

Graph 8.9(a): Average Actual Water Consumption (kL's)

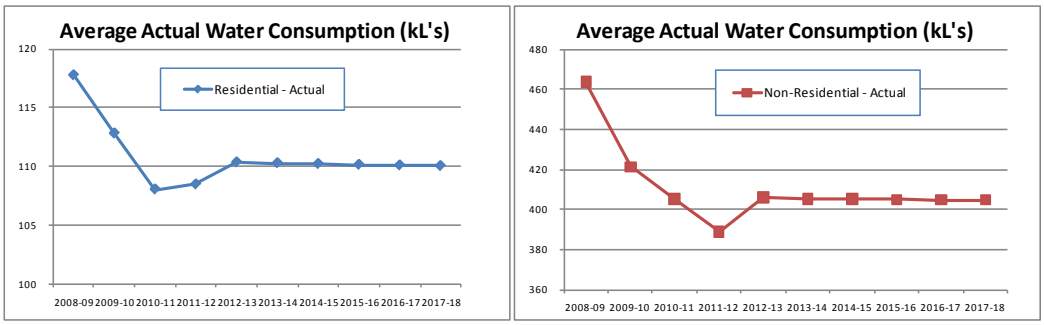


Table 8.9(b) outlines the actual and forecast average water consumption (kL's) by customer demographic, excluding major customers.

Table 8.9(b): Average Water Consumption

	SECOND REG PERIOD					THIRD REG PERIOD				
	2008-09 Actual	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13 Forecast	2013-14 Water Plan	2014-15 Water Plan	2015-16 Water Plan	2016-17 Water Plan	2017-18 Water Plan
Average Water Consumption (kL's)										
Residential										
East/West	133	126	124	122	124	124	124	124	124	124
Southern	104	102	94	97	98	98	98	98	98	98
Total	118	113	108	108	110	110	110	110	110	110
Non-Residential (excl. majors)	-	-	-	-	-	-	-	-	-	-
East/West	442	396	380	364	381	380	380	380	380	380
Southern	536	504	486	465	483	482	481	481	480	480
Total	464	421	405	389	406	405	405	405	405	405

8.10 Major Customer Demand

South Gippsland Water recognises it has a role to play in supporting regional development and to this end it provides infrastructure and services to meet a number of major industrial customers in South Gippsland Water's supply area. There are several 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 commodity market fluctuations also play a major part in the demand of major industrial customers for water.

In addition 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 a number of significant water saving measures to date but the extent of water saving and reuse has generally been limited by costs and technology.

Recent announcements by Murray Goulburn have further clouded their estimates for future water consumption. These include state wide plant rationalisation and redundancies and market opportunities for UHT (Ultra High Temperature) processed milk, which can be produced at the Leongatha plant. Local management has been unable to dimension the impact of these announcements on future water consumption with any certainty. If significant demand was experienced by major customers, including Murray Goulburn and Burra Foods, acceleration of the Northern Town Supply Connection project (reliant on government funding) would be able to service their needs.

While assumptions of demand, based on high level advice, 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.

Table 8.10 (a) provides a summary of current major customer consumption and future assumptions.

Table 8.10(a): Current Major Customer Demands

Supply System	Major industrial customer	Current major customer demand (ML/yr) – 2011/12	Future additional industrial demand (ML/yr)
Little Bass River	Poowong Abattoir	25	No change in demand
Coalition Creek	Burra Foods	250	25% reduction in 2012/13 15% reduction in 2013/14 As advised by major customer
Ruby Creek	Murray Goulburn	920	5% efficiency each year as advised by major customer
	Leongatha Steam Plant	75	No change in demand 1% efficiency each year
Lance Creek	Tabro Meats	155	No change in demand
Agnes River	Esso	35	No change in demand
TOTAL		1,460	

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 8.10(b) details the overall water consumption demand history and forecasts. Total demand is forecast to increase by 26ML over the Water Plan period.

Significantly, this change is made up of:

- reducing demand by major customers (Murray Goulburn lower by 125ML, all other major customers down by 28MLs);
- increased demand from Agreement Customers (up by 11MLs); and
- growth (7.3%) from Residential and Non-residential customers (up by 169MLs).

Table 8.10(b): Summary of Urban Water Consumption – 2008/09 to 2011/12

Year	Unit	2008/09 Actual	2009/10 Actual	2010/11 Actual	2011/12 Actual	2012/13 Forecast	2013/2014 Forecast	2014/2015 Forecast	2015/2016 Forecast	2016/2017 Forecast	2017/2018 Forecast
Urban Water Consumption											
Murray Goulburn	kL's	931,261	888,742	926,968	922,899	874,000	830,300	788,785	749,346	749,346	749,346
Other Major Customer	kL's	434,026	401,625	492,699	544,430	477,500	449,375	449,375	449,375	449,375	449,375
Agreement Customers	kL's	613,760	532,423	449,081	441,549	448,715	450,759	452,795	454,823	456,843	459,388
Residential & Non-resident	kL's	2,720,119	2,627,012	2,630,450	2,638,650	2,756,552	2,787,397	2,821,215	2,855,569	2,889,946	2,925,073
Total	kL's	4,699,166	4,449,802	4,499,198	4,547,528	4,556,767	4,517,831	4,512,170	4,509,113	4,545,510	4,583,182

8.11 Other Services

Wastewater volumes

Wastewater volumes are forecast to remain relatively consistent, as a proportion of water consumption. It should be noted that the effects 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 domestic wastewater services, therefore wastewater volumes play no part in revenue collection.

Cistern and minor trade waste customers

Cistern and minor trade waste customers are forecast to remain relatively static in number and loading during the Water Plan period, as has historically been the case. South Gippsland Water utilises a two part tariff (service fee with volumetric component) for these customers.

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 8.11(a) summarises South Gippsland Water's major trade waste customers.

Table 8.11(a): 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 Ocean Outfall
Burra Foods	100,000	Korumburra Domestic	Tertiary	Foster Creek
Leongatha Steam Co Ltd	20,000	Leongatha Domestic	Tertiary	Little Ruby Creek

South Gippsland Water has Trade Waste Agreements with the above 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.

South Gippsland Water is currently negotiating a revised Trade Waste Agreement with Burra Foods. The agreement will reflect the increased loading experienced from them since a major augmentation to their operations in 2010.

Miscellaneous revenue

Material miscellaneous revenues comprise inspection fees, information certificates, water tapping fees, etc. No individual miscellaneous service comprises more than 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. They have not been significantly volatile nor are forecast to be in future. Table 8.11(b) below details historical and forecast miscellaneous revenue.

Table 8.11(b) Miscellaneous Revenue 2008/09 – 2017/18

Year	Unit	2013/2014 Forecast	2014/2015 Forecast	2015/2016 Forecast	2016/2017 Forecast	2017/2018 Forecast
Miscellaneous Revenues						
Inspection Fees	$'s	85,000	85,000	85,000	85,000	85,000
Information Statements	$'s	57,000	57,000	57,000	57,000	57,000
Water Tapping Fees	$'s	125,000	125,000	125,000	125,000	125,000
Total	$'s	267,000	267,000	267,000	267,000	267,000

9. Incentive Mechanisms

Key Points

- South Gippsland Water has applied a 1% p.a. efficiency target on its business as usual operating expenditure, excluding the Environmental Contribution and licence fees on the basis that they represent uncontrollable costs mandated by regulators and government.
- The Corporation also supports the use of incentive mechanisms to promote sustainable use of water resources and other efficiency improvements.

9.1 Introduction

The Water Industry Regulatory Order (WIRO) requires the Essential Services Commission (ESC) to be satisfied that prices provide businesses with incentives to pursue efficiency improvement and to promote the sustainable use of water resources. In reviewing South Gippsland Water's Water Plan, the ESC will seek to ensure that South Gippsland Water has sufficient incentives to:

- Achieve efficiencies to minimise the actual cost of providing services;
- To deliver desired levels of service over the regulatory period; and
- Recognise that there is a trade-off between these two competing requirements.

9.2 Incentive Mechanisms

Performance incentives that can be applicable to South Gippsland Water include:

- Specifying service obligations to apply;
- Reporting performance against service obligations – publicised in the ESC's annual Water Performance Report;
- Setting a five year price path based on forecasts of regulatory components of revenue (including expenditure and returns);
- Ability to retain any efficiency savings for a full five years (Efficiency Carryover Mechanism); and
- The adoption of a financial incentive mechanism to reward or penalise for performance, as set out against pre-determined standards (see Guaranteed Service Levels (GSLs) in section 3).

South Gippsland Water notes the ESC's intention to develop a risk and performance factor mechanism prior to the commencement of the third regulatory period.

South Gippsland Water further notes that consultation on the mechanism has not yet commenced but looks forward to contributing during the process.

9.3 Exclusions from the Allowable Revenue Requirement

The ESC is considering requiring some costs to be excluded from South Gippsland Water's revenue requirement such as:

- **Drought related activities**; that businesses will be more likely to improve long term planning and risk management processes if they bear the cost of non delivery;
- **Water conservation**; to only include water conservation costs in the revenue requirement when conservation is the lowest cost solution for managing demand and supply;
- **Non contractual obligations**; those undefined obligations imposed by government and technical regulators which may be optional should not be included;
- **GSL payments**; where these payments are the outcome of poor performance businesses should not be compensated for poor performance as such these should not be included; and
- **Bad debts;** to only be recovered where they reflect debts incurred through no fault of the business, or reflect debts of customers identified as being in hardship.

With respect to the items above:

- **Drought related activities** – South Gippsland Water has not included any drought related activities it its business as usual (BAU) operating expenditure;
- **Water conservation** – South Gippsland Water has included its membership of the Savewater!^{TM} Alliance in its BAU operating expenditure and minor costs associated with administering State Government rebate schemes;
- **Non contractual obligations** – South Gippsland Water has not included any undefined obligation in BAU operating expenditure; and
- **GSL Payments** – South Gippsland Water has included $0.05M for the introduction of GSL schemes in its BAU operating expenditure.

10. Form of Price Control

Key Points

- South Gippsland Water proposes to maintain the individual price caps form of control having considered the uncertainty of supply and demand forecasts, including how climatic variability affects forecasting.

10.1 Introduction

The Water Industry Regulatory Order (WIRO) provides the Essential Services Commission (ESC) with the flexibility to approve individual prices or the manner for determining prices. Several forms of price control are used in Victoria, but individual price caps are the most common, South Gippsland Water currently utilises this form of price control.

10.2 Forms of Price Control

A number of forms of price control are available to South Gippsland Water:

- Weighted average price cap (or price basket) – A weighted average price cap is applied to a basket of services. The prices businesses submit each year must conform to a predetermined price path escalated by the consumer price index less a productivity factor (CPI-X). The weights are usually derived from the actual quantities of service sold;
- Weighted average revenue (or revenue yield) – The average revenue per unit of service earned by the business is capped in any period. The average is calculated by dividing total revenue by total output. This requires a standard unit of output, such as megalitres;
- Individual price caps – Prices are approved by the regulator at the start of the regulatory period and escalated annually by applying the CPI-X formula to each price component. Prices are not re-balanced within the regulatory period;
- Revenue cap – The maximum revenue businesses can earn is set at the start of a regulatory period. This provides a business with guaranteed revenue regardless of sales volume; and
- Any combination of the above, that is a hybrid approach, could be utilised.

10.3 WIRO Requirements

South Gippsland Water proposes to maintain the individual price caps form of price control as it believes it meets the WIRO requirements as it:

- Provides incentives to align price structures with underlying costs – High cost services should have higher prices, while low cost services should have lower prices. Aligning costs and prices is important for efficient investment and water service use;
- Manages and allocates demand and supply risk efficiently – It reflects demand and supply risks and how they affect revenue; and
- Minimises administrative complexity, cost and intrusiveness – It is administratively simple and is easy for consumers to understand which results in lower costs for South Gippsland Water.

10.4 Key Issues Considered

Further, South Gippsland Water considered a number of key issues in selecting the individual price caps form of price control including:

- Risk management: South Gippsland Water has considered the uncertainty about supply and demand forecasts. South Gippsland Water believes that the revenue composition between service charges and variable tariffs provides a basis for ensuring that the business needs for sustainable revenue and customer needs for affordable tariffs are managed. While climate change impacts may be significant, they will still be able to be managed within a five year regulatory period;
- Price path stability: Price stability (that is, avoiding price shocks) is an important consideration both within and between control periods. South Gippsland Water's planning reflects a longer time frame in order to manage significant investment decisions that can be 'large and lumpy' in nature and the long life of many infrastructure assets;
- Transition arrangements: As South Gippsland Water currently utilises the individual price caps form of price control, there are no transition issues; and
- Customer choice: South Gippsland Water has considered the introduction of customer tariff choice during the third regulatory period (refer to section 11). South Gippsland Water does not plan to introduce tariff choice in this regulatory period.

11. Tariff Levels and Structures

Key Points

- The weighted average price increase for an average customer (a residential customer with an average water consumption and wastewater service) is 1.9% p.a. excluding inflation.
- South Gippsland Water proposes to maintain a two part retail water tariff to promote water efficiency.
- South Gippsland Water proposes to harmonise it's East/West and Southern retail water service charge by 1 July 2016.
- South Gippsland Water proposes to increase the volumetric component of the retail water tariff, albeit marginally (0.6%) than the service charge, to ensure that customers are provided with efficient price signals about the costs of providing services and the incentives for sustainable water use.
- South Gippsland Water proposes to maintain a single fixed sewerage disposal charge for residential and non residential (non-trade waste) customers.
- South Gippsland Water proposes to continue to apply the current recycled water pricing principles.
- South Gippsland Water proposes to maintain non residential cistern and trade waste sewage disposal charges based on load and risk.
- South Gippsland Water prices for miscellaneous charges are proposed based on recovery of actual costs and will be maintained in real terms.
- South Gippsland Water intends to review its hardship policies.

11.1 Introduction

The Water Industry Regulatory Order (WIRO) requires prices to provide a business with a sustainable revenue stream that does not reflect monopoly rents or inefficient expenditure. Prices are set to allow businesses to recover operating and maintenance costs, renewal and replacement costs and a rate of return on existing and future assets. This Water Plan outlines proposed annual prices and tariffs.

This section of the Water Plan identifies the prices and tariff structures that South Gippsland Water is 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 wastewater;
- Recycled water;
- Trade waste and non-residential cisterns;
- Miscellaneous; and
- New customer contributions.

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

- Move towards a uniform water service charge across the region, (South Gippsland Water currently has two separate water service charges); and
- Slowly 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 include:

- 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 residential customer with average water consumption and wastewater service) as a result of the commitments and outcomes presented in this Water Plan is 1.9% pa excluding inflation.

11.2 Pricing and Tariff Principles

The ESC released a 'Tariff Issues Paper in July 2011. It covered tariff issues to be addressed in Water Plans for the third regulatory period. South Gippsland Water has determined the tariff structure that it considers best meets customer's needs and has utilised the Essential Services Commissions' (ESC's) Tariff Assessment Principles as outlined in the '2011 Water Price Review - Guidance on Water Plans' when designing tariff structures.

11.3 Tariff Structure & Design

South Gippsland Water has considered and/or consulted customers on a number of tariff structure and design issues when looking at water and sewerage pricing including:

- Locational pricing/Regional tariffs;
- A two part retail water tariff to promote water efficiency;
- A single fixed sewage disposal charge for residential and non residential (non-tradewaste) customers;
- Non-residential cistern and trade waste sewage disposal charges based on load and risk; and
- Prices for miscellaneous charges to be set based on recovery of actual costs.

South Gippsland Water consulted customers on those aspects of tariff structure and design for which they can have the most impact.

11.4 Retail Water Tariffs

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.

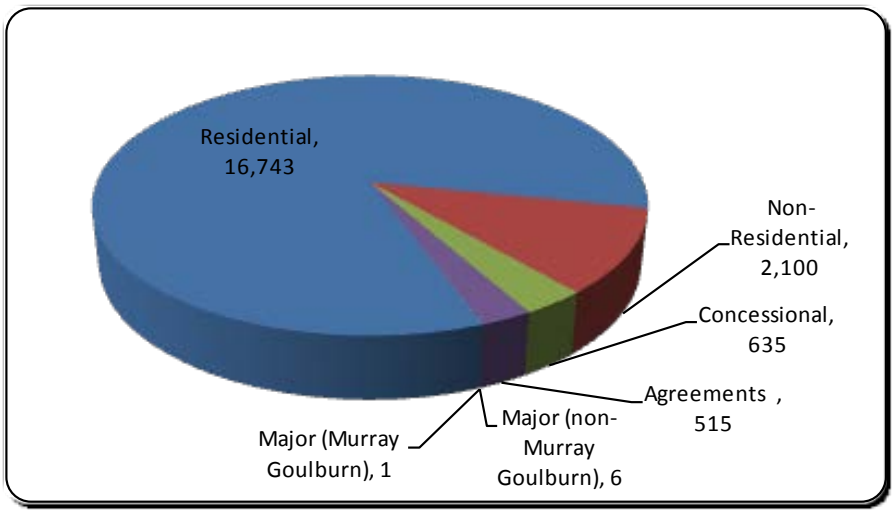
Agreement

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.

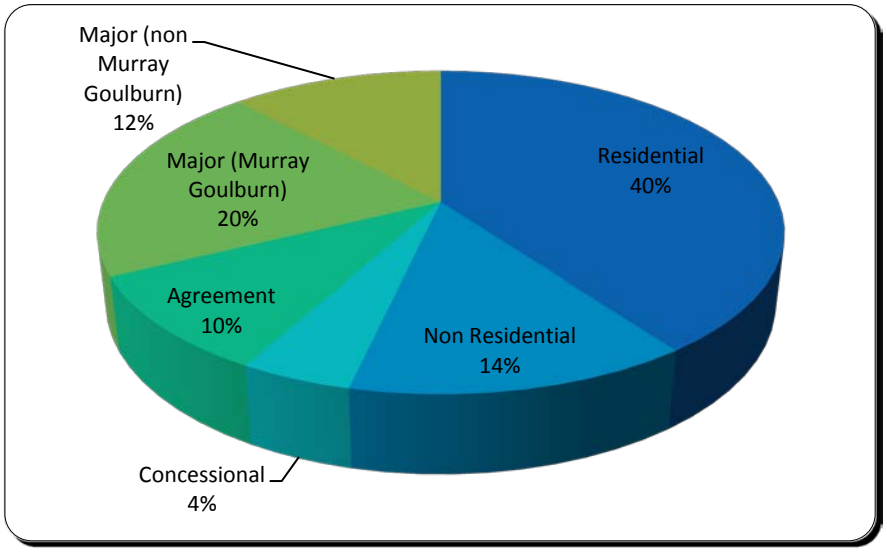
Major Customer

South Gippsland Water has a number of major customers that account for a large amount of the water supplied. Graphs 10.4(a) and 10.4(b) present the number of properties in each category and the proportion of water used by each customer type.

Graph 11.4(a) South Gippsland Water Properties by Customer Type - 2011/12



Graph 11.4(b) South Gippsland Water - Water Consumption by Customer Type 2011/12



As is evident, major and non-residential customers, who comprise 10.5% of the total number of properties, account for 45.9% of total water use. Whilst a large proportion of consumption is used by residential customers (40.0%), 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 the various levels of water treatment infrastructure (including major capital investment in the Southern district in the mid to late 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 2011/12, Murray Goulburn comprised over 61% of the Ruby Creek supply's consumption.

Table 11.4(c): Historical and Current Retail Water Tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price* *(1 July 2008)*	*Price* *(1 July 2009)*	*Price* *(1 July 2010)*	*Price* *(1 July 2011)*	*Price* *(1 July 2012)*
1.1 Water access fees (per annum)					
East/West District					
Access fee – Developed	253.15	271.36	282.16	293.63	305.40
Access fee – Undeveloped	253.15	271.36	282.16	293.63	305.40
Access fee – Agreements	230.07	246.73	256.65	266.96	277.65
Access fee – Concessional	211.48	224.38	232.72	241.37	250.35
Southern District					
Access fee – Developed	336.15	343.93	347.66	351.53	355.35
Access fee – Undeveloped	336.15	343.93	347.66	351.53	355.35
Access fee – Agreements	301.95	308.94	312.39	315.88	319.35
Access fee – Concessional	211.48	224.38	232.72	241.37	250.35
1.2 Water usage charges (per kL)					
Volumetric fee – Murray Goulburn	1.5217	1.6719	1.7740	1.8793	1.9900
Volumetric fee – All others	1.2505	1.3716	1.4591	1.5441	1.6400

South Gippsland Water's current structure is comprised of two components: a service charge (relating to infrastructure and fixed costs), and a volumetric charge (which is a variable component according to water use).

Volumetric component

South Gippsland Water consulted with customers regarding a proposal to increase the volumetric component, albeit gradually, in order to promote sustainable water use and increase the capacity of customers to influence their total water tariff. March 2012 focus group participants were given a mock example and asked to rate the strategy, 26% gave no response, 17% did not support it and 57% supported the strategy.

During focus groups in August 2012 customers were given a scenario based on the proposed 2013/14 water tariff rate which compared average usage (119kl p.a.) versus high usage (300kl p.a.) and asked if they supported the gradual increase of the volumetric tariff by 0.6% per year over 5 years. Once again the majority 86% of participants were in favor of the proposal, 10% against and 4% no response. This same scenario was used in the August 2012 survey and results were 59.7% in favor, 30.2% against and 10.1% unsure.

Those who supported the proposal believed that it would encourage customers to become more water efficient. Other participants expressed concern for those customers who were water reliant, i.e. large families and low income earners under a higher volumetric charge.

Financial counsellors that attended the March 2012 focus group meetings believed that if increased volumetric charges were introduced it was essential that those on low incomes were given the appropriate support to help reduce their water usage and avoid large increases in their bills. The financial counsellor, who attended the August 2012 Wonthaggi focus group felt that a further increase in the volumetric tariff would lead to increased hardship, however despite this they were not opposed to increasing volumetric tariff rates and were merely providing an opinion on the likely outcome for customers they believed would be affected.

Inclining block and seasonal tariffs

With respect to inclining block water tariffs (IBT) South Gippsland Water shares the ESC's view and does not support their adoption due to equity issues, the ineffectiveness of IBT incentives on reducing demand and the easing of water restrictions generally over the last few years.

South Gippsland Water consulted with customers on the adoption of a seasonal tariff (charge more for water in summer months when demand is high due to the influx of tourists and those with holiday homes). Few of the March 2012 focus group participants supported this proposal with 77% against. Most people against the proposal felt that it would not impact customer behavior due to the time lag between use and the billing cycle. Whilst others felt that it would increase prices for all customers and further, visitors would not realise that this tariff was in place and therefore could not adjust behavior. In addition, South Gippsland Water has reviewed consumption data for the last four years which revealed average consumption increases only marginally in the December to March period (less than 10kL per billing period of 4 months, for a residential customer).

As such, South Gippsland Water proposes to maintain its two-part retail water tariff because it promotes efficiency, is simple, and consistent with the National Water Initiatives pricing principles. We also believe it best protects low income and vulnerable customers.

Regional tariff alignment

South Gippsland Water currently has two separate regional water tariff service charges (East/West and Southern) which is a remnant from the amalgamation of water boards in 1995. Currently (2012/13) there is a $50 difference between the tariffs. Over the Water Plan II period, South Gippsland Water was gradually harmonising pricing and proposes to continue with this approach during the Water Plan III period. When March 2012 focus group participants were asked about tariff alignment, responses varied between locations, yet overall customers supported the proposal with 63% in favor.

Those in the region where tariffs have been higher felt that tariff alignment "should already have been done". Those who were not in favor of the proposal believed that customers should pay what it costs, and if costs varied in different locations then those customers should pay different tariffs.

During the August 2012 focus groups customers were asked if they agreed with the customer equity principle of tariff alignment, 93% agreed with this principle. Focus group participants were then asked if they supported the proposal to unify tariffs rates across the region 86% were in favor of this proposal.

Respondents to the August 2012 survey were 55.7% in favor, 16.8% against and 27.5% unsure. This result further indicates that responses garnered from surveys are less informed on topic areas. With many of those who answered 'unsure' indicating in their comments that they did not understand what 'customer equity was'.

Under the pricing proposed in this Water Plan, harmonisation will be completed by 1st July 2016.

Table 11.4(d) details the current and proposed prices (in real terms) over the five years of the Water Plan.

Table 11.4(d): Current and Proposed Retail Water Tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price (1 July 2012)*	*Price (1 July 2013)*	*% Variation*	*Price (1 July 2014)*	*% Variation*	*Price (1 July 2015)*	*% Variation*	*Price (1 July 2016)*	*% Variation*	*Price (1 July 2017)*	*% Variation*
1.1 Water access fees (per annum)											
East/West District											
Access fee – Developed	305.40	318.25	4.2%	331.26	4.1%	344.80	4.1%	358.89	4.1%	365.88	1.9%
Access fee – Undeveloped	305.40	318.25	4.2%	331.26	4.1%	344.80	4.1%	358.89	4.1%	365.88	1.9%
Access fee – Agreements	277.65	289.35	4.2%	301.17	4.1%	313.48	4.1%	326.30	4.1%	332.65	1.9%
Access fee – Concessional	250.35	255.74	2.2%	260.97	2.0%	266.31	2.0%	271.75	2.0%	277.04	1.9%
Southern District											
Access fee – Developed	355.35	356.36	0.3%	357.06	0.2%	357.75	0.2%	358.45	0.2%	365.42	1.9%
Access fee – Undeveloped	355.35	356.36	0.3%	357.06	0.2%	357.75	0.2%	358.45	0.2%	365.42	1.9%
Access fee – Agreements	319.35	320.22	0.3%	320.84	0.2%	321.46	0.2%	322.09	0.2%	328.36	1.9%
Access fee – Concessional	250.35	255.74	2.2%	260.97	2.0%	266.31	2.0%	271.75	2.0%	277.04	1.9%
1.2 Water usage charges (per kL)											
Volumetric fee – Murray Goulburn	1.9900	2.0638	3.7%	2.1361	3.5%	2.2110	3.5%	2.2884	3.5%	2.3330	1.9%
Volumetric fee – All others	1.6400	1.6957	3.4%	1.7551	3.5%	1.8166	3.5%	1.8802	3.5%	1.9168	1.9%

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

Long run marginal cost (LRMC)

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

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 0.6% 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.

Impacts on customers

Based on quantitative 2010/11 consumption data, together with the proposed prices for the next regulatory period and high level assumptions regarding growth in demand, South Gippsland Water reviewed 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, South Gippsland Water separately analysed the impact on vulnerable customers (deemed to be those customers in possession of a concession card) and tenants.

Among other things, it was concluded that South Gippsland Water'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.

As such, the burden for meeting South Gippsland Water'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.

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 the 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 by 2016/17 the tariffs will be aligned; and
- 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 3.2% real p.a. over the regulatory period.

South Gippsland Water found that due to the 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. About 1,235 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% off their water usage bill up to $138.50 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 1,235 customers who are 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 11.4(e) below. The average water consumption is that recorded for 2011/12.

Table 11.4(e): 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)	130	46	102	41	350	165	720	270	280	10	1,265	515
2012/13												
Tariff	$ 517.95	$ 380.47	$ 522.27	$ 422.43	$ 878.04	$ 575.24	$ 1,455.91	$ 692.06	$ 813.61	$ 371.69	$ 2,389.75	$ 1,093.06
2013/14												
Tariff	$ 538.69	$ 396.25	$ 529.32	$ 425.88	$ 911.73	$ 598.03	$ 1,510.23	$ 713.58	$ 831.15	$ 373.32	$ 2,465.24	$ 1,129.02
$ var'n	$ 20.73	$ 15.78	$ 7.05	$ 3.45	$ 33.70	$ 22.79	$ 54.32	$ 21.51	$ 17.54	$ 1.63	$ 75.49	$ 35.95
% var'n	4.0%	4.1%	1.3%	0.8%	3.8%	4.0%	3.7%	3.1%	2.2%	0.4%	3.2%	3.3%
2014/15												
Tariff	$ 559.42	$ 411.99	$ 536.07	$ 429.01	$ 945.54	$ 620.85	$ 1,564.83	$ 734.84	$ 848.48	$ 374.61	$ 2,541.02	$ 1,164.84
$ var'n	$ 20.73	$ 15.74	$ 6.75	$ 3.13	$ 33.80	$ 22.81	$ 54.60	$ 21.27	$ 17.33	$ 1.29	$ 75.78	$ 35.82
% var'n	3.8%	4.0%	1.3%	0.7%	3.7%	3.8%	3.6%	3.0%	2.1%	0.3%	3.1%	3.2%
2015/16												
Tariff	$ 580.95	$ 428.36	$ 543.04	$ 432.23	$ 980.60	$ 644.53	$ 1,621.42	$ 756.78	$ 866.39	$ 375.92	$ 2,619.43	$ 1,201.84
$ var'n	$ 21.53	$ 16.37	$ 6.97	$ 3.22	$ 35.06	$ 23.69	$ 56.58	$ 21.94	$ 17.91	$ 1.31	$ 78.41	$ 37.00
% var'n	3.8%	4.0%	1.3%	0.7%	3.7%	3.8%	3.6%	3.0%	2.1%	0.3%	3.1%	3.2%
2016/17												
Tariff	$ 603.32	$ 445.38	$ 550.23	$ 435.54	$ 1,016.97	$ 669.13	$ 1,680.06	$ 779.41	$ 884.91	$ 377.25	$ 2,700.57	$ 1,240.06
$ var'n	$ 22.37	$ 17.02	$ 7.19	$ 3.31	$ 36.37	$ 24.60	$ 58.64	$ 22.63	$ 18.52	$ 1.33	$ 81.14	$ 38.22
% var'n	3.9%	4.0%	1.3%	0.8%	3.7%	3.8%	3.6%	3.0%	2.1%	0.4%	3.1%	3.2%
2017/18												
Tariff	$ 615.06	$ 454.05	$ 560.94	$ 444.01	$ 1,036.76	$ 682.15	$ 1,712.76	$ 794.58	$ 902.13	$ 384.59	$ 2,753.14	$ 1,264.20
$ var'n	$ 11.74	$ 8.67	$ 10.71	$ 8.48	$ 19.80	$ 13.02	$ 32.70	$ 15.17	$ 17.22	$ 7.34	$ 52.57	$ 24.14
% var'n	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
Total 5 Year Cummulative												
Tariff	$ 615.06	$ 454.05	$ 560.94	$ 444.01	$ 1,036.76	$ 682.15	$ 1,712.76	$ 794.58	$ 902.13	$ 384.59	$ 2,753.14	$ 1,264.20
$ var'n	$ 97.11	$ 73.58	$ 38.67	$ 21.58	$ 158.73	$ 106.91	$ 256.85	$ 102.52	$ 88.52	$ 12.90	$ 363.38	$ 171.14
% var'n	18.7%	19.3%	7.4%	5.1%	18.1%	18.6%	17.6%	14.8%	10.9%	3.5%	15.2%	15.7%

11.5 Retail Wastewater Tariffs

Background

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

Residential

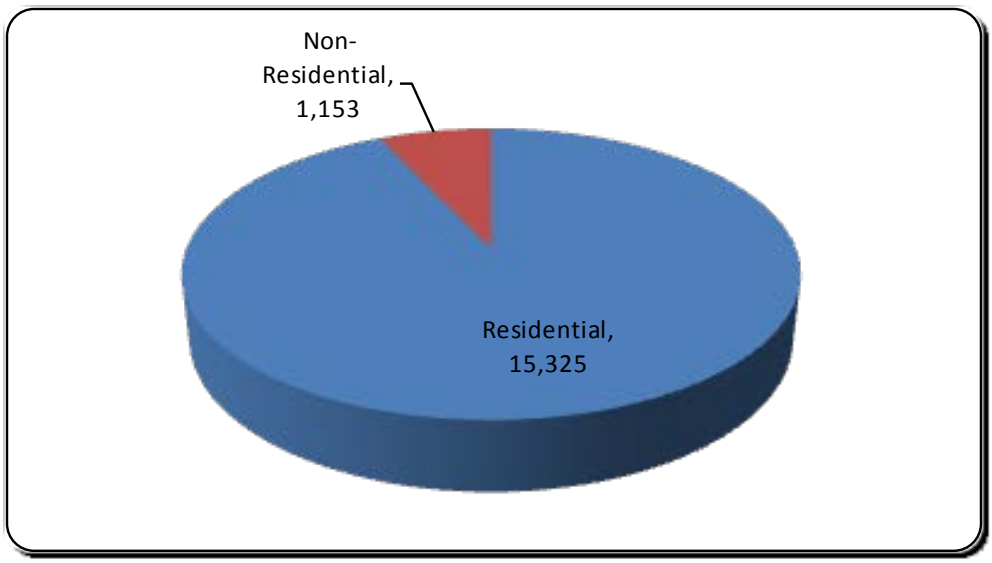
A residential property is defined as a property that is provided for domestic purposes and includes houses, flats, units, townhouses, rural residences, police dwellings, retirement villages or any other properties that have similar water behaviour to a "House".

This includes vacant land (undeveloped) serviced by a sewerage 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 11.5(a): South Gippsland Water Properties by Customer Type



As is evident by the above figure, residential customers comprise the vast majority (93%) 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 11.5(b): Historical and current retail sewerage tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price* *(1 July 2008)*	*Price* *(1 July 2009)*	*Price* *(1 July 2010)*	*Price* *(1 July 2011)*	*Price* *(1 July 2012)*
1.3 Sewerage access fees (per annum)					
Residential and non-residential					
Access fee – Developed	418.15	429.96	437.26	444.79	452.25
Access fee – Undeveloped	245.51	252.40	256.65	261.02	265.50

Volumetric sewerage charges

With respect to the likely need for, and effectiveness of, Volumetric Sewerage Charges (VSCs) the following refers.

South Gippsland Water'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 South Gipsland Water's jurisdiction in general, and in these seasonal locations in particular, is low compared to the state and regional average. Setting VSCs that account for this low and diverse consumption would be problematic.

Regarding the application of VSCs, 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 customers 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.

South Gippsland Water does not support the introduction of VSCs.

Proposed tariffs

South Gippsland Water proposes to maintain its one-part wastewater tariff for residential and non-residential (not cistern or trade waste customers) in line with its concerns regarding VSCs above and consistent with the ESC's views expressed in its paper, 2013 Water Price Review Guideline on Water Plans

The following Table 11.5(b) details the current and proposed prices (in real terms) over the five years of the Water Plan.

Table 11.5(c): Current and Proposed Retail Sewerage Tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price (1 July 2012)*	*Price (1 July 2013)*	*% Variation*	*Price (1 July 2014)*	*% Variation*	*Price (1 July 2015)*	*% Variation*	*Price (1 July 2016)*	*% Variation*	*Price (1 July 2017)*	*% Variation*
1.3 Sewerage access fees (per annum)											
Residential and non-residential											
Access fee – Developed	452.25	457.93	1.3%	463.28	1.2%	468.69	1.2%	474.17	1.2%	483.39	1.9%
Access fee – Undeveloped	265.50	268.74	1.2%	271.87	1.2%	275.05	1.2%	278.26	1.2%	283.68	1.9%

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

Long run marginal cost (LRMC)

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

Sustainable water use

While VSCs 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.

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 1.3% real increase p.a., a total of 6.9% over the regulatory period.

For the majority of South Gippsland Water's customers (93%) who are on a developed service charge, this will result in a $31.19 real increase over the five years of the Water Plan. The increase is less than $18.30 (real) for undeveloped wastewater customers.

Approximately 2,677 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.

Customer consultation

South Gippsland Water consulted with focus group participants in March 2012 on the introduction of a volumetric wastewater component. Only 29% of customers were in favor of volumetric wastewater charges based on their water usage. Some felt they would be unfairly paying more. For example keen gardeners would pay for volumetric wastewater even though the higher water use did not result in additional loads on the wastewater system. Some 46% of focus group participants were opposed to volumetric wastewater tariffs with the remainder 23% giving no response.

South Gippsland Water consulted focus group participants again in August 2012 regarding the decision to leave wastewater tariffs as a fixed charge. 93% of participants supported the decision.

11.6 Proposed Retail and Wastewater Tariffs

Table 11.6(b) below outlines South Gippsland Water's proposed retail water and wastewater tariff structure and prices to 30th June 2018. Revenue from retail water and wastewater tariff comprises the bulk (86%) of SGW prescribed revenue.

The table illustrates that, as a part of the harmonisation of East/West and Southern water services charges, East/West customers will incur higher increases in service charges (4.2% in 2013/14 reducing to 1.9% in 2017/18 following the realignment process). By contrast Southern customers who currently pay $50 more per annum, will experience significantly lower increases (0.3% in 2013/14, 0.2% in 2014/15, 2015/16 and 2016/17, increasing to 1.9% in 2017/18, following the realignment process).

It is proposed to increase the volumetric charge for water consumed at a rate slightly below that for the East/West service charge, but higher than the rate for Southern customers. The result will be a gradual increase in revenue from water consumption consistent with the opinions of customers, but not so much that it will significantly impact larger families, tenants, and other vulnerable customers.

It is proposed to vary the retail wastewater charge by 1.3% in 2013/14, 1.2% in 2014/15, 2015/16 and 2016/17 and then by 1.9% in the final year of the regulatory period, 2017/18.

Table 11.6(c) shows the impact on customers who have both water and wastewater services by region and demographic. It demonstrates that the average residential East/West customer will experience a 13.2% ($128.29) increase in their total annual account over the five year regulatory period compared with a 7.2% ($69.85) increase for the average residential Southern customer. This is due to the harmonisation of the retail water service charge (currently a $50 differential) and higher average water consumption.

Tenant customers will experience tariff impacts higher than Southern customers but less than East/West customers.

These increases, although much less than those experienced by customers during the second regulatory period will impact at a time when other utility bills have increased markedly. Therefore, South Gippsland Water intends to review its hardship policies in order to be proactive in assisting customers who are impacted by the proposed tariff structure and prices. This will include concession card holders, residents on fixed incomes, tenants, large families and those showing payment difficulties.

South Gippsland Water consulted with customers regarding the proposed tariff increases in the August 2012 survey and August 2012 focus groups. The results are outlined in the table 11.6 (a) below.

Table 11.6(a): Consultation Results Regarding Tariff Increases

Are the proposed tariff increases....?	**Too Low**	**About right**	**Too High**	**Unsure No response**
August Focus Groups	7%	72%	0%	20%
August Survey	1.5%	52.6%	31.4%	14.6%

Table 11.6(b): Current & Proposed Real Tariff Prices & Structure

Tariff and Price Component *$, 1/1/13*	*Price* *(1 July 2012)*	*Price* *(1 July 2013)*	*%* *Variation*	*Price* *(1 July 2014)*	*%* *Variation*	*Price* *(1 July 2015)*	*%* *Variation*	*Price* *(1 July 2016)*	*%* *Variation*	*Price* *(1 July 2017)*	*%* *Variation*
1.1 Water access fees (per annum)											
East/West District											
Access fee – Developed	305.40	318.25	4.2%	331.26	4.1%	344.80	4.1%	358.89	4.1%	365.88	1.9%
Access fee – Undeveloped	305.40	318.25	4.2%	331.26	4.1%	344.80	4.1%	358.89	4.1%	365.88	1.9%
Access fee – Agreements	277.65	289.35	4.2%	301.17	4.1%	313.48	4.1%	326.30	4.1%	332.65	1.9%
Access fee – Concessional	250.35	255.74	2.2%	260.97	2.0%	266.31	2.0%	271.75	2.0%	277.04	1.9%
Southern District											
Access fee – Developed	355.35	356.36	0.3%	357.06	0.2%	357.75	0.2%	358.45	0.2%	365.42	1.9%
Access fee – Undeveloped	355.35	356.36	0.3%	357.06	0.2%	357.75	0.2%	358.45	0.2%	365.42	1.9%
Access fee – Agreements	319.35	320.22	0.3%	320.84	0.2%	321.46	0.2%	322.09	0.2%	328.36	1.9%
Access fee – Concessional	250.35	255.74	2.2%	260.97	2.0%	266.31	2.0%	271.75	2.0%	277.04	1.9%
1.2 Water usage charges (per kL)											
Volumetric fee – Murray Goulburn	1.9900	2.0638	3.7%	2.1361	3.5%	2.2110	3.5%	2.2884	3.5%	2.3330	1.9%
Volumetric fee – All others	1.6400	1.6957	3.4%	1.7551	3.5%	1.8166	3.5%	1.8802	3.5%	1.9168	1.9%
1.3 Sewerage access fees (per annum)											
Residential and non-residential											
Access fee – Developed	452.25	457.93	1.3%	463.28	1.2%	468.69	1.2%	474.17	1.2%	483.39	1.9%
Access fee – Undeveloped	265.50	268.74	1.2%	271.87	1.2%	275.05	1.2%	278.26	1.2%	283.68	1.9%

Table 11.6(c): Average Increases (real) by Customer Demographic - Combined Water & Wastewater

YEAR	Residential				Non-residential							
	East/West		Southern		East/West				Southern			
	General	Vacant	General	Vacant	General	Vacant	Agreement	Concessional	General	Vacant	Agreement	Concessional
Average usage (kL's)	130	46	102	41	350	165	720	270	280	10	1,265	515
2012/13												
Tariff	$ 970.17	$ 645.85	$ 974.48	$ 687.81	$ 1,330.25	$ 840.62	$ 1,908.13	$ 1,144.28	$ 1,265.82	$ 637.07	$ 2,841.97	$ 1,545.28
2013/14												
Tariff	$ 996.62	$ 664.98	$ 987.25	$ 694.62	$ 1,369.67	$ 866.77	$ 1,968.16	$ 1,171.51	$ 1,289.08	$ 642.05	$ 2,923.18	$ 1,586.95
$ var'n	$ 26.45	$ 19.14	$ 12.77	$ 6.81	$ 39.42	$ 26.15	$ 60.04	$ 27.23	$ 23.26	$ 4.98	$ 81.21	$ 41.67
% var'n	2.7%	3.0%	1.3%	1.0%	3.0%	3.1%	3.1%	2.4%	1.8%	0.8%	2.9%	2.7%
2014/15												
Tariff	$ 1,022.70	$ 683.86	$ 999.35	$ 700.89	$ 1,408.82	$ 892.72	$ 2,028.12	$ 1,198.13	$ 1,311.76	$ 646.48	$ 3,004.30	$ 1,628.12
$ var'n	$ 26.08	$ 18.88	$ 12.10	$ 6.27	$ 39.15	$ 25.95	$ 59.95	$ 26.62	$ 22.68	$ 4.43	$ 81.13	$ 41.17
% var'n	2.6%	2.8%	1.2%	0.9%	2.9%	3.0%	3.0%	2.3%	1.8%	0.7%	2.8%	2.6%
2015/16												
Tariff	$ 1,049.64	$ 703.41	$ 1,011.73	$ 707.28	$ 1,449.29	$ 919.58	$ 2,090.11	$ 1,225.47	$ 1,335.08	$ 650.97	$ 3,088.12	$ 1,670.53
$ var'n	$ 26.94	$ 19.54	$ 12.38	$ 6.39	$ 40.47	$ 26.86	$ 62.00	$ 27.35	$ 23.32	$ 4.49	$ 83.82	$ 42.41
% var'n	2.6%	2.9%	1.2%	0.9%	2.9%	3.0%	3.1%	2.3%	1.8%	0.7%	2.8%	2.6%
2016/17												
Tariff	$ 1,077.48	$ 723.64	$ 1,024.39	$ 713.80	$ 1,491.13	$ 947.39	$ 2,154.22	$ 1,253.57	$ 1,359.07	$ 655.51	$ 3,174.74	$ 1,714.23
$ var'n	$ 27.84	$ 20.23	$ 12.66	$ 6.52	$ 41.84	$ 27.81	$ 64.11	$ 28.10	$ 23.99	$ 4.55	$ 86.61	$ 43.69
% var'n	2.7%	2.9%	1.3%	0.9%	2.9%	3.0%	3.1%	2.3%	1.8%	0.7%	2.8%	2.6%
2017/18												
Tariff	$ 1,098.46	$ 737.73	$ 1,044.33	$ 727.69	$ 1,520.16	$ 965.83	$ 2,196.16	$ 1,277.97	$ 1,385.53	$ 668.27	$ 3,236.53	$ 1,747.60
$ var'n	$ 20.97	$ 14.09	$ 19.94	$ 13.89	$ 29.02	$ 18.44	$ 41.93	$ 24.40	$ 26.45	$ 12.76	$ 61.80	$ 33.37
% var'n	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
Total 5 Year Cummulative												
Tariff	$ 1,098.46	$ 737.73	$ 1,044.33	$ 727.69	$ 1,520.16	$ 965.83	$ 2,196.16	$ 1,277.97	$ 1,385.53	$ 668.27	$ 3,236.53	$ 1,747.60
$ var'n	$ 128.29	$ 91.88	$ 69.85	$ 39.88	$ 189.91	$ 125.21	$ 288.03	$ 133.70	$ 119.71	$ 31.20	$ 394.57	$ 202.32
% var'n	13.2%	14.2%	7.2%	5.8%	14.3%	14.9%	15.1%	11.7%	9.5%	4.9%	13.9%	13.1%

11.7 Recycled Water Tariff Proposal

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 South Gippsland climate, the relatively low volumes of treated effluent available, the limited 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 2011/12.

In addition, works for the Poowong, Loch and Nyora Wastewater Scheme and compliance upgrades for the Foster Wastewater Treatment Plant both include the need for disposal via reuse as the most cost effective and environmentally sustainable options.

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

The current Recycled Water pricing principles were set under the 2008 pricing determination.

Proposed tariffs

South Gippsland Water proposes to continue to apply the current recycled water pricing principles.

Recycled water pricing principles

Recycled water prices should be set so as to:

- Have regard to the price of any 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.

Where South Gippsland Water does not propose to fully recover the costs associated with recycled water, it will demonstrate to the Commission that:

- It has assessed the costs and benefits of pursuing the recycled water project;
- It has clearly identified the basis on which any revenue shortfall is to be recovered; and
- If the revenue shortfall is to be recovered from non-recycled water customers, either the project is required under the Statement of Obligations which applies to South Gippsland Water or pursuant to other Government policies that apply to South Gippsland Water or there has been consultation with the affected customers about their willingness to pay for the benefits of increased recycling.

The tariff principles would be applied as required from time to time.

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.

11.8 Trade Waste

South Gippsland Water currently operates a load and risk based tariff structure for larger non residential wastewater customers (cisterns) and trade waste customers (major and minor). These charges reflect the treatment costs and complexities that these customers impose on wastewater treatment plants.

Major trade waste

Presently South Gippsland Water have only two 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 Wastewater Treatment Plants (WWTPs). These are typically large dischargers such as dairy products manufacturers. Other minor trade waste discharges are being charged under the Corporation's minor trade waste tariff structure.

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 three 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.

Table 11.8(a) below summarises South Gippsland Water's major trade waste customers.

Table 11.8(a): 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	100,000	Korumburra Domestic	Tertiary	Foster Creek
Leongatha Steam Co Ltd	20,000	Leongatha Domestic	Tertiary	Little Ruby Creek

Major trade waste agreements are 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.

Minor trade waste

Minor trade waste customers are managed via a three category classification system, based on waste quantity and quality, implemented during the second regulatory period.

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 includes application charges, service fees, volume charges, quality charges, additional sampling charges and exceedence charges.

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 were 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 have been calculated by using the total loads of four key quality parameters that are treated in South Gippsland Water's biological WWTPs 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 11.8(b) details the proposed prices (in real terms) for minor trade waste customers over the five years of the Water Plan. The tariff increases proposed are consistent with the retail wastewater tariff increases proposed by South Gippsland Water.

Table 11.8(b): Proposed Minor Trade Waste Tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price (1 July 2012)*	*Price (1 July 2013)*	*% Variation*	*Price (1 July 2014)*	*% Variation*	*Price (1 July 2015)*	*% Variation*	*Price (1 July 2016)*	*% Variation*	*Price (1 July 2017)*	*% Variation*
1.5 Minor trade waste fees											
Application fees (per application)											
Category 1	111.00	112.39	1.3%	113.71	1.2%	115.04	1.2%	116.38	1.2%	118.64	1.9%
Category 2	177.00	179.22	1.3%	181.32	1.2%	183.43	1.2%	185.58	1.2%	189.19	1.9%
Category 3	324.00	328.07	1.3%	331.90	1.2%	335.78	1.2%	339.70	1.2%	346.31	1.9%
Access fees (per annum)											
Access fee – Category 1	594.75	602.22	1.3%	609.26	1.2%	616.37	1.2%	623.57	1.2%	635.71	1.9%
Access fee – Category 2	789.90	799.83	1.3%	809.17	1.2%	818.62	1.2%	828.18	1.2%	844.30	1.9%
Access fee – Category 3	979.95	992.26	1.3%	1,003.85	1.2%	1,015.58	1.2%	1,027.44	1.2%	1,047.44	1.9%
Volumetric fees (per kL)											
All Categories	0.7900	0.7999	1.3%	0.8093	1.2%	0.8187	1.2%	0.8283	1.2%	0.8444	1.9%
Quality fees (per kg)											
BOD	0.6125	0.6202	1.3%	0.6274	1.2%	0.6348	1.2%	0.6422	1.2%	0.6547	1.9%
SS	0.5775	0.5848	1.3%	0.5916	1.2%	0.5985	1.2%	0.6055	1.2%	0.6173	1.9%
Nitogen	2.5850	2.6175	1.3%	2.6481	1.2%	2.6790	1.2%	2.7103	1.2%	2.7630	1.9%
Phosphorus	14.7250	14.9100	1.3%	15.0842	1.2%	15.2603	1.2%	15.4386	1.2%	15.7391	1.9%
Additional sampling (per sample)											
All Categories	Actual Cost	Actual Cost		Actual Cost		Actual Cost		Actual Cost		Actual Cost	
Exceedence fees (per kg)											
Oil & Grease	0.0925	0.0937	1.3%	0.0948	1.2%	0.0959	1.2%	0.0970	1.2%	0.0989	1.9%
Sodium	0.0925	0.0937	1.3%	0.0948	1.2%	0.0959	1.2%	0.0970	1.2%	0.0989	1.9%
TOS	0.6600	0.6683	1.3%	0.6761	1.2%	0.6840	1.2%	0.6920	1.2%	0.7055	1.9%

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

Long run marginal cost (LRMC)

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

Sustainable water use

South Gippsland Water believes that a load and risk base 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.

Impacts on customers

Under the proposed tariffs, trade waste customers will receive a modest 1.3% real increase p.a., a total of 6.9% over the regulatory period. This is consistent with the retail wastewater tariff increases proposed. There were approximately 180 minor trade waste customers that contributed $170,000 of revenue in 2011/12.

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.

11.9 Non-residential Cistern Charges

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.

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%; and
- Sporting 30%.

Table 11.9(a): Historical and Current Cistern Tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price (1 July 2008)*	*Price (1 July 2009)*	*Price (1 July 2010)*	*Price (1 July 2011)*	*Price (1 July 2012)*
1.4 Cistern access fees (per annum)					
1-2 Cisterns	135.45	139.32	141.71	144.15	146.55
3-5 Cisterns	356.57	366.45	372.70	379.11	385.50
6-10 Cisterns	690.06	709.25	721.31	733.69	746.25
11-15 Cisterns	1,104.89	1,135.81	1,155.10	1,174.98	1,194.90
16-20 Cisterns	1,842.42	1,893.98	1,926.16	1,959.26	1,992.45
21-26 Cisterns	2,636.89	2,710.64	2,756.74	2,804.04	2,851.65
27-35 Cisterns	3,232.00	3,322.53	3,379.01	3,437.01	3,495.30
36–Greater Cisterns	3,692.97	3,796.39	3,860.98	3,927.06	3,993.90
Volume Charge – (per kL)					
Volume Charge	1.2505	1.3716	1.4591	1.5441	1.6400

Proposed tariffs

The following Table 11.9(b) details the current and proposed prices (in real terms) for cistern customers over the five years of the Water Plan. The tariff increases proposed are consistent with the retail wastewater tariffs proposed by South Gippsland Water.

Table 11.9(b): Current and Proposed Cistern Tariffs (real)

Tariff and Price Component *$, 1/1/13*	*Price (1 July 2012)*	*Price (1 July 2013)*	*% Variation*	*Price (1 July 2014)*	*% Variation*	*Price (1 July 2015)*	*% Variation*	*Price (1 July 2016)*	*% Variation*	*Price (1 July 2017)*	*% Variation*
1.4 Cistern access fees (per annum)											
1-2 Cisterns	146.55	148.39	1.3%	150.12	1.2%	151.88	1.2%	153.65	1.2%	156.64	1.9%
3-5 Cisterns	385.50	390.34	1.3%	394.90	1.2%	399.51	1.2%	404.18	1.2%	412.05	1.9%
6-10 Cisterns	746.25	755.63	1.3%	764.45	1.2%	773.38	1.2%	782.41	1.2%	797.64	1.9%
11-15 Cisterns	1,194.90	1,209.91	1.3%	1,224.05	1.2%	1,238.34	1.2%	1,252.80	1.2%	1,277.19	1.9%
16-20 Cisterns	1,992.45	2,017.49	1.3%	2,041.05	1.2%	2,064.89	1.2%	2,089.00	1.2%	2,129.66	1.9%
21-26 Cisterns	2,851.65	2,887.48	1.3%	2,921.21	1.2%	2,955.32	1.2%	2,989.84	1.2%	3,048.03	1.9%
27-35 Cisterns	3,495.30	3,539.22	1.3%	3,580.56	1.2%	3,622.37	1.2%	3,664.68	1.2%	3,736.01	1.9%
36–Greater Cisterns	3,993.90	4,044.09	1.3%	4,091.32	1.2%	4,139.10	1.2%	4,187.44	1.2%	4,268.95	1.9%
Volume Charge – (per kL)											
Volume Charge	1.6400	1.6957	3.4%	1.7551	3.5%	1.8166	3.5%	1.8802	3.5%	1.9168	1.9%

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

Long run marginal cost

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

Sustainable water use

South Gippsland Water believes that a load and risk based non-residential cistern tariff structure provides efficient signals about the costs of providing services and incentives for sustainable water use.

Impacts on customers

Under the proposed tariffs, cistern customers will receive a modest 1.3% real increase p.a., a total of 6.9% over the regulatory period. This is consistent with the retail wastewater tariff increases proposed. There were approximately 591 cistern customers that contributed $665,000 of revenue in 2011/12.

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.

11.10 Miscellaneous Charges

In addition to providing water and wastewater services, 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.

South Gippsland Water has identified the following core miscellaneous services:

Table 11.10(a): Core Miscellaneous Services

Property Information Statements	*Fee imposed for providing a certificate issued in accordance with Section 158 of the, Water Act 1989.*	$46.00 per application (1/1/13 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.*	$23.50 per application (1/1/13 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 (1/1/13 prices)
As Constructed Charge	*Fee for preparing as constructed asset information from the field then transferring to maps, for both water and sewerage systems.*	$63.50 per allotment (1/1/13 prices)
20mm Tapping Fee	*Fee imposed for meter and labour associated in providing a tapping to the water main.*	$349.50 per tapping (1/1/13 prices)
Plumbing Industry Commission (PIC) Fee	*Fee imposed for providing sewer plans and processing applications to connect or modify plumbing.*	$196.50 per application (1/1/13 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 (1/1/13 prices)
Septic Tank Waste Receival	*Fee imposed on septic tank waste carters, for the disposing of sewage and/or other acceptable waste.*	23.50 per kL (1/1/13 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 South Gippsland Water such as labour, transport and general overheads;
- For new miscellaneous services, exclude costs previously accounted for in approved prices; and
- Are transparent.

South Gippsland Water proposes to retain pricing at current prices (in real terms) for the duration of the Water Plan period.

As a principle, South Gippsland Water proposes to recover all direct costs plus a 25% contribution to overheads for the provision of non-scheduled miscellaneous services.

Long run marginal cost

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

Impacts on customers

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

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.

12. Tariff Choice

Key Points

- At this stage, it is South Gippsland Water's view that the benefit of increased customer choice will not outweigh the costs to customers and the Corporation and therefore has decided not to implement it during the up-coming regulatory period.

12.1 Introduction

The purpose of customer choice – the ability of customers to choose from a range of alternative tariff or services – is to allow customers to select a tariff and/or service best fitting their preferences, similar to offers provided by the electricity industry.

South Gippsland Water sought customer views on increasing customer choice for water tariffs and offerings and has consulted customers about their desire for tariff choice. South Gippsland Water has done this while keeping in mind its requirement under the Water Industry Regulatory Order (WIRO) to ensure that it maintains a sustainable revenue stream to recover operating, maintenance, renewal and replacement costs.

12.2 Views on Customer Choice

South Gippsland Water explored how it could allow for greater customer choice around tariffs and service offerings and as such consulted with customers during the preparation of its Draft Water Plan.

During focus group sessions in March 2012, participants were asked to rate a proposal where South Gippsland Water had a range of tariff options and customers could choose the option that best suited them. Participants were divided with 34% supporting the proposal, 34% against the proposal and 31% did not respond.

In the discussion concerns were raised that tariff choice would add a layer of complexity, that customers may not fully comprehend and then be locked into a bad decision or that tariff choice would increase administration costs with a billing system up-grade being required.

During the August 2012 focus groups South Gippsland Water consulted further with customers regarding its Draft Water Plan decision not to offer tariff choice to customers. South Gippsland Water outlined its reasoning and asked customers if they supported the decision not to offer tariff choice. 79% were supportive, 17% against and 10% unsure.

12.3 Issues With Respect to the Introduction of Greater Choice

South Gippsland Water has decided not to implement customer choice tariffs in the up-coming regulatory period for the following reasons:

- Inertia and a lack of customer motivation to make choices;
    - SGW expects that the proportion of water customers actively seeking choices in water services and tariffs will be small. Research suggests that there is little or no evidence that consumers want or have taken advantage of greater choice (Consumer Utilities Advocacy Centre, 2011).
    - Water supply is a basic essential service. Water is not a sophisticated product, requires 'low-engagement' of customers and it is supplied continuously. Given these attributes, consumers, who are in general reluctant to change, have even less incentive or need to actively change the service or tariff they are on.
- Increased complexity for customers;
    - Introducing customer choice will increase complexity for consumers and require a more detailed understanding of water consumption habits and preferences. This may be difficult for some consumers, especially vulnerable groups (the elderly, low income households, tenants), with limited knowledge or capacity.
    - Extensive information and education program required;
    - As a result of increasing complexity, a high degree of information and education to explain and underpin customer choice will be required, to enable and encourage customers to actively make use of greater choice given to them.
- South Gippsland Water's tariff billing system cannot, at this stage, (easily) handle multiple options; and
- Customers consulted during focus groups discussions were divided on the issue, South Gippsland Water will look to other areas of tariff structure. Rather than provide customers with greater choice, South Gippsland Water aims to provide customers with greater control (albeit marginally) of their bill via the volumetric tariff component of water tariffs.

12.4 Summary

Given the reasons outlined above, it is South Gippsland Water's view that the benefits of increased customer choice will not outweigh the costs to both customer and South Gippsland Water.

13. New Customer Contributions

Key Points

- South Gippsland Water will adopt the new principles based New Customer Contribution (NCC) regime as outlined by the Essential Services Commission (ESC) in their August 2012 Guidance Paper.
- South Gippsland Water estimates of growth capital, gifted assets and forecast NCC revenue is based on the current regime but will be updated in coming months.

13.1 Introduction

The Essential Services Commission (ESC) has now developed a principles based New Customer Contribution (NCCs) regime designed to address problems with the existing regulatory framework in a way that is consistent with the relevant regulatory and legislative instruments. Some of the key features of the new framework are:

- NCCs are based on incremental costs, thus improves cost reflectivity;
- NCCs take into account the benefits existing customers receive when new customers connect;
- Greater transparency is promoted in relation to how developer charges are calculated;
- Water corporations may set standard charges for catchments. This should give developers some certainty about expected charges;
- Water corporations and developers have the ability to negotiate charges in accordance with pricing principles; and
- Consistent with legislation, the Victorian Civil and Administrative Tribunal (VCAT) will hear disputes in relation to NCCs.

The ESC has stated that it believes that the new NCC regime is better aligned with the regulatory and legislative frameworks and the recommendations for the Ministerial Advisory Council in relation to NCCs than the existing framework.

The ESC released a guidance paper in August 2012 putting forward the Commission's expectations in relation to NCCs and Water Plan III. Importantly, the Commission expects upfront consultation between water corporations and developers about the costs and timing of assets required to service new areas. South Gippsland Water has commenced this consultation in order to improve transparency and lessen the likelihood of unanticipated outcomes and disputes.

13.2 The New NCC Framework

The new NCC framework will return to a more flexible arbitrate and negotiable connection regime as envisaged by legislation. The existing state wide scheduled charges and prescriptive rules will be replaced by pricing principles. This will enable the NCCs to be applied consistently across the many different developments in Victoria.

Under this framework each of the key participant's roles is clarified. The ESC will assess and approve the pricing principles, any standardised charges and negotiation framework of each water corporation. Water corporations are required to negotiate NCCs in accordance with the approved pricing principles and negotiating frameworks. Developers will negotiate with water corporations and have recourse to VCAT for dispute resolution.
The negotiating framework will explain connection applicants' rights and obligations, the service charging model, applicable pricing principles, the negotiating process and recourse to arbitration.

The pricing principles proposed by water corporations must include the minimum pricing principles set out in the guidance paper. The pricing principles require developers to meet the incremental costs that they impose on water businesses when they connect to the water, sewerage, or recycled water networks less the incremental revenues earned from the new customers. This approach ensures that NCCs are cost reflective and that the benefits of new connections are shared between new and existing customers.

It is noted that during the transition period, in the interests of minimising formal disputes before VCAT, the ESC could (upon request from a water business or developer) provide an opinion about whether the proposed NCC charge is consistent with the approved pricing principles.

The ESC believes that the new framework will result in increased transparency efficiency in the way that connection services are provided and how NCCs are calculated and applied. It will also support the user pays principle when it comes to different connection types across the state.

As part of the ESC's expectations with respect to the new framework, South Gippsland Water has commenced consulting with the new connection customers (developers, Urban Development Institute of Australia, Property Council of Australia) on how it proposes to apply the new NCC framework both individually and via VicWater.

While this Water Plan contains estimates of growth capital, gifted assets and forecast NCC revenue based on the current regime, South Gippsland Water will finalise its regulatory framework and then model forecast NCC revenue based on the new framework in the coming months.

South Gippsland Water will utilise the ESC's NCC estimator to assist it calculate NCCs in accordance with the pricing principles.

14. Customer Consultation

Key Points

- South Gippsland Water has conducted broad and in-depth customer consultation on the development of this Water Plan.
- The consultation approach incorporated the use of external consultancy services and was based on a consultation strategy prepared prior to the start of customer engagement.
- Consultation has focused on areas where customers have the capacity to provide input.
- An estimated 2.6% of South Gippsland Water's customer base responded to consultation initiatives, most notably via hard copy surveys.
- South Gippsland Water has conducted consultation regarding the Water Plan at all stages; in preparing the Draft Water Plan, and whilst preparing the Final Water Plan.
- South Gippsland Water has incorporated customer viewpoints and preferences where applicable into this Water Plan document.

14.1 Introduction

South Gippsland Water identified a range of services and proposed projects to be included in this Water Plan and for which customer input has been sought. The aim of the consultation process was to gain an understanding of customer's support and concerns regarding proposals. Prior to releasing the Draft Water Plan and this Water Plan document, the Corporation has undertaken a number of community consultation activities including:

- Focus groups;
- Advertorials and media releases;
- Surveys in person and hard copy (mailed to all customers during April 2012 and Australia Post Unaddressed Mail in August) and web based; and
- Fact sheet/overview documents (mailed to all customers during April 2012) and available online and at focus groups.

The above activities have been conducted in order to gain an understanding of customers' thoughts regarding a range of proposals, activities and tariff options. Consultation has been broad in terms of aiming to reach all customers, yet in-depth through the use of customer focus group sessions in which participants reviewed and discussed detailed information regarding proposals for the Water Plan.

14.2 South Gippsland Water's Expectations and Objectives for Consultation with Customers

Prior to the commencement of consultation with customers regarding the Water Plan, South Gippsland Water participated in the Essential Services Commission (ESC) community engagement and the Water Plan process seminar. Following this seminar, the Corporation prepared a Community Engagement Plan for the Water Plan. This document outlines the aims of the Corporation to ensure that a more intensive consultation process was conducted than for Water Plan II and that consultation was conducted both pre and post the release of the Draft Water Plan.

Consultation objectives;

To undertake broad and in-depth customer consultation regarding customer thoughts on areas of the Water Plan, this consultation was to inform both the preparation of the Plan and also to review the Draft and apply any appropriate amendments as identified by the community.

Consultation focused on areas of customer input and primarily related to service priorities and pricing:

- Service standards;
- Major projects ;
- Water provision (operational projects);
- Wastewater provision (operational projects);
- Pricing and tariff reform; and
- Environmental projects.

Consultation also informed customers regarding regulatory obligations such as water and wastewater services and standards, dam safety obligations, water quality testing, etc.

Consultation (where possible) used new technology and digital means to consult with the customer base.

14.3 South Gippsland Water's Consultation Approach with Customers

In order to ensure that consultation regarding the Water Plan was effective the Corporation first prepared an engagement strategy outlining steps and requirements for effective consultation. This strategy identified that the use of an external consultancy would assist in providing in-depth response and discussion as well as a third party analysis of customer input. As a result South Gippsland Water secured the services of Bartley Consulting Pty Ltd who organised and ran two rounds of focus group discussions in March and August 2012. Following these group discussions Bartley Consulting provided South Gippsland Water with a comprehensive report detailing the feedback and customer viewpoints ascertained during the group discussions.

As a result South Gippsland Water has utilised a hybrid approach to consultation using in-house resources where applicable, however, it has recognised that external assistance can provide comprehensive and independent feedback and has utlised these services to strategic effect.

South Gippsland Water has conducted the following consultation activities as summarised in Table 14.3(a).

Table 14.3(a): Summary of Water Plan Consultation Activities

Activity	Details	Recruitment/Targeting	Phase	Results	Outcomes
Focus groups March 2012	3x2 hour group discussions. Yarram, Korumburra & Wonthaggi Included information sheets prior to groups	Bartley Consulting – Cold calls from customer list	1 – Pre Draft	**37** Customer attended Qualitative discussion Quantitative feedback	Bartley Consulting report
April 2012 survey	Article and survey in Pipeline Newsletter Also available online	Mailed to all (approx **20,000**) customers with April rates notice	1 - Pre Draft	**266** hardcopy responses **53** online responses Quantitative data Open ended comments	Quantitative data A feature article & 6 question survey
Advertorials	Feb 2012 – Full Colour ½ page community update Aug 2012 – 4 column Full Colour advert	All local papers (The Yarram Standard, Foster Mirror, The Star and The Sentinel Times)	1 – Pre Draft 2 - Draft	-	Community awareness
Media releases	March - "Water Planning Underway" April - "Water Planning Underway June - "Draft Water Plan III Released for Public Comment" August - "Water Plan III Public Comment Closes Soon"	All local papers	1 – Pre Draft 2 - Draft	Articles published in all local papers	Community awareness
Fact Sheets	4xA4 fact sheets on website homepage	Visitors to www.sgwater.com.au	2 - Draft	Available for download online	Community awareness
Focus groups August 2012	3x2 hour group discussions. Yarram, Leongatha & Wonthaggi	Bartley Consulting – Cold calls from customer list, cold called existing community groups and invited selected participants from phase 1 groups	2 - Draft	**29** Customers attended Qualitative discussion Quantitative feedback forms	Bartley Consulting report
Direct mail survey August 2012	6 page A4 brochure, direct mailed to over **11,400** homes (Australia Post Unaddressed Mail deliveries) Also available online	Selected towns/homes in water supply area Town/Quantity: Yarram/ 923 Foster/ 629 Leongatha/2,069 Korumburra/1,396 Inverloch/3,720 Wonthaggi/2,696	2 - Draft	**100** hardcopy responses **50** online responses Quantitative data Open ended comments	Quantitative data Information from fact sheets and an 8 question survey
Presentations	Guest speaker regarding Water Plan - community groups/schools	Wonthaggi Probus Club, Lions Club and Rotary Club. Leongatha and South Gippsland Secondary Colleges	2 - Draft	-	Community awareness
Requests for comment	Key stakeholder sent copies of the Draft Water Plan and invited to comment	Key stakeholders, local government and other authorities	2 - Draft	Comments received from a number of individuals and organisations	Community awareness

14.4 Results of Customer Consultation

Participation

All of South Gippsland Water's 20,000 customer accounts were targeted at least once during consultation for the Water Plan. Approximately 2.6% of South Gippsland Water's customer accounts responded to consultation initiatives which ran from March 2012 to August 2012. The overwhelming majority of responses came from hard copy survey's (366 responses). Whilst South Gippsland Water sought to give customers a variety of ways and means to provide comment on the Water Plan, the most successful means (in terms of volume of response) was to use surveys and supply these in hard copy format.

Demographics of respondents

March 2012 focus groups

A total of 37 customers/representatives participated in the sessions (Yarram: 13 customers; Korumburra 12 customers; Wonthaggi 12 customers).

Participants ranged in age from 30-39 to over 80 years and included single people, couples and families. Many people were retired and some were in paid employment and almost half the participants were eligible concession card holders. Several customers had water dependent businesses (farmers and caravan park owners). Financial counsellors were present at the Korumburra and Wonthaggi sessions and a representative from the Bass Coast Shire Council was present at the Wonthaggi session.

April 2012 survey

A total of 319 responses were received for the April 2012 survey. Of respondents who provided demographic details (demographics were optional) 98% of respondents were residential customers, 85.9% Singles/Couple and 14.1% families. 64% retirees, 21.9% were employed full time, 11.4% part time and 4.7% responsible for home duties. 71.3% were aged 60+. 41.9% were from Inverloch/Cape Paterson and 13.6% from Wonthaggi.

August 2012 focus groups

A total of 29 customers/representatives participated in the sessions (Yarram: 11 customers; Korumburra 7 customers; Wonthaggi 11 customers).

Participants ranged in age from 30-39 to over 60 years and included single people, couples and families. Several customers had water dependent businesses (caravan park and laundromat). Financial counsellors were present at the Leongatha and Wonthaggi sessions, a Landcare representative attended the Yarram session; a representative of the Bass Coast Shire Council attended at the Wonthaggi Session and a representative of the South Gippsland Shire Council attended the Leongatha session.

August 2012 survey

A total of 150 responses were received by the August 2012 survey. Of respondents who provided demographic details (demographics were optional) 91.6% of respondents were residential customers, 66.7% retirees, 26.9% families and 6.4% customers in financial hardship. 14.5% were employed full time and 13% part time or casually. 80.9% were aged 60+. 36.9% were from Inverloch and 21.3% from Wonthaggi.

March 2012 focus groups – results summary

Table 14.4(a): March 2012 Focus Groups Results and Key Findings Table

*Extract from Bartley Consulting report "Feedback from Phase 1 Community Consultations for South Gippsland Water"

Service/project/tariff	Key findings
Service standards	• Most participants believe that all of the standards presented to them are moderately important or very important (i.e. they rated the importance of the Standards at least 5 out of 10) • Most participants felt that the current standards are reasonable • Rather than improving the standards, most participants would prefer that South Gippsland Water focused on improving its communication with customers to keep them informed when planned works were occurring and the likely duration that they would be without water; if a notice was received saying the water would be off at a particular time then it should not be turned off earlier than the stated time

Guaranteed service levels	• Participants were divided as to the value of GSLs
	  • 20% believe they are very worthwhile (they gave a rating of 9 or 10 out of 10) while 34% believed that they were not worthwhile (they gave a rating of 1 to 4 out of 10)
	  • 23% believed GSLs would improve South Gippsland Water's performance
	• Participants who did not support GSLs would rather South Gippsland Water invested the money in its infrastructure and maintenance than making individual payments to participants; others were concerned about the cost of such a scheme

Capital expenditure	• Most participants supported all nine projects presented to them, regardless of the availability of State Government funding to reduce the financial burden on customers • They also generally supported the projects, regardless of whether they believed they were directly affected

Tariff structure	• Participants were divided in their support for **volumetric tariffs**
	  • 20% were very supportive of it (i.e. they gave a rating of 9 or 10 out of ten), because it would encourage customers to become more water efficient, they would be better off financially and user pays was fair
	  • 17% did not support volumetric tariffs (i.e. they rated the strategy between 1 and 4 out of 10) because of adverse impacts on businesses and low income earners
	• Participants were divided in their support for **a tariff choice**

Service/project/tariff	Key findings
	• 34% agreed with the proposal because they liked the idea of allowing customers to choose a tariff structure that suited them • 34% did not agree with the proposal because it was adding a layer of complexity for customers; some customers might make a bad decision and there would be costs associated with providing customers with choice • Participants did not generally support **seasonal tariffs** (71% were against the proposal) –they did not believe it would encourage visitors to use less water – visitors would not see the cost and it penalises residents, particularly gardeners • Just under a third of participants supported the proposal for a **volumetric wastewater charge** (29%); 46% did not support the proposal
Region tariff alignment	• Most customers supported the proposal for regional tariff alignment (26% gave a rating of 9 or 10 out of 10 and 37% gave a rating of 5 to 8 out of 10) – these participants generally believed that it is reasonable that all customers across the region should pay the same tariffs; and it would lessen the impact of tariff increases in the Southern Region • 11% were against the proposal (i.e. they gave a rating of 1 to 4 out of 10); they believed that customers should pay what it costs to provide the service, and if the costs are different in different locations this should be reflected in variable tariffs across the region
Hardship	• Most participants supported the proposal to proactively assist vulnerable customers affected by the proposed price structure to move to a volumetric tariff (31% gave a rating of 9 or 10 out of 10 and 37% gave a rating of 5 to 8 out of 10) • Participants emphasised the importance of educating customers to be water efficient, and they believed that many of these vulnerable customers were not aware of what they could do to increase their water efficiency • They would also like to see South Gippsland Water offer water audits to these customers to help them become more water efficient
The environment	• Most participants (66%) supported the **closure of more ocean outfalls**, however when customers specifically considered the cost, the level of support decreased to 34% • 54% of customers supported South Gippsland Water **purchasing carbon neutral power or Green Energy from renewable sources** – 34% did not support the proposal because they did not want to pay for it or they did not think it was South Gippsland Water's role • Most participants (71%) believed that South Gippsland Water should participate in **programs to reduce its greenhouse gas emissions**, even if these programs do not pay for themselves (60%) – however customers were generally unsure how much South Gippsland Water should spend • Almost half of the participants (49%) believe **South Gippsland Water's expenditure on environmental projects** is about right; 26% were unsure.

April 2012 survey – results summary

Table 14.4(b): April 2012 Survey Results Summary Table

Q1: To promote sustainable water use and allow customers greater control of their bill. South Gippsland Water is looking to decrease the annual service charge and increase the Volumetric component of our water tariffs. Should South Gippsland Water gradually increase volumetric water tariffs?	Yes	No	Unsure	Count
	76.8%	16.0%	7.2%	306
Q2: Should South Gippsland Water introduce a program of compensation for customers who receive poor levels of service from the Corporation?	Yes	No	Unsure	Count
	71.8%	15.1%	13.1%	298
Q3: As the Essential Services Commission is mandating that a compensation program be introduced, please select from the options below the standards of service that should attract compensation; i.e. if South Gippsland Water did not meet these levels of service, compensation would be issued? Service Standards:			Response %	Count
No more than 5 unplanned water interruptions per year			53.1%	288
Unplanned water supply interruptions to be restored within 5 hours			**67%**	
No more than 3 sewerage interruptions per year			48.3%	
Unplanned sewerage interruptions to be restored within 5 hours			63.5%	
Sewer spills to be contained within 5 hours			64.2%	
South Gippsland Water shall not restrict water supply or take legal action over unpaid bills, prior to taking reasonable measures to contact the customer in person or over the phone.			66.3%	
Q4: Do you support South Gippsland Water's long term strategy to network towns in the northern region (Korumburra, Poowong, Loch & Nyora) to Lance Creek Reservoir and the Melbourne Supply System? This strategy is also known as the 'Water Supply Demand Strategy'	Yes	No	Unsure	Count
	52.6%	27.7%	19.7%	310
Q5: If the Corporation does not receive funding from the State Government, should it still proceed with the plan to interconnect townships in the Northern region (Korumburra, Poowong, Loch & Nyora) to Lance Creek Reservoir? Without funding the strategy has a more immediate impact on tariffs, yet over the long term the interconnection strategy is cheaper than the alternate option of maintaining separate surface water systems.	Yes	No	Unsure	Count
	41.6%	30.8%	27.6%	308
Q6: You answered "No" to Question 5; "Should South Gippsland Water proceed with the plan to interconnect townships in the Northern region to Lance Creek Reservoir?" Please explain why?			# of responses	Skipped Question
			104	215
Q7: Do you have any comments you would like to add regarding South Gippsland Water's Water Plan or Water Supply Demand Strategy?			# of responses	Skipped Question
			87	232

August 2012 focus groups – results summary

Table 14.4(c): August 2012 Focus Groups Results and Key Findings Table

*Extract from Bartley Consulting report "Feedback from Phase 2 Community Consultations for South Gippsland Water"

Service/project/tariff	Key findings
Service standards	• Nearly all customers (93% of participants) were happy with the service standards presented to them • Most participants rated South Gippsland Water's overall service as good or excellent (69%)
Guaranteed service levels	• Nearly all participants (93% overall) indicated that they believe that the proposed GSLs are appropriate, given that the ESC has obligated South Gippsland Water to introduce GSLs • Most customers were confused by the wording of the fourth GSL related to restricting a customer's water supply or taking legal action, before making a reasonable effort to contact the customer to provide information about the help that is available, if the customer is experiencing difficulties paying. The wording needs to be clearer for customers to understand this GSL • Nearly all participants (93% overall) indicated that they believe that the proposed rebate amounts per breach are appropriate

Capital expenditure	• Most participants supported the projects presented to them, they recognised the need for capital works to cater for population growth, compliance and general maintenance
	  • Nearly all participants (93% overall) indicated that they support the Poowong, Loch and Nyora Sewerage Scheme
	  • Most participants (86% overall) indicated that they support the Northern Towns Supply Connection **with** $20M of State Government funding - only 48% of participants a supported the Northern Towns Supply Connection **without** State Government funding
	  • Most participants (83% overall) indicated that they support investment into the Foster Wastewater Treatment Plant upgrade
	• Overall, although most participants (66%) felt that South Gippsland Water's investment into capital expenditure of $71.85M over 5 years is about right, overall 31% were unsure
	• Most participants (86% overall) supported greater capital investment now to construct infrastructure to help ensure the region's water supply during drought
	  • Customers were divided as to whether they would support increased investment in water security if it meant higher tariffs – overall 38% yes, 28% no and 31% unsure

Tariff increase	• Most customers (72% overall) believe that the proposed tariff increases are about right • They supported South Gippsland Water's proposal to minimise tariff increases, noting the potential impacts of any increases on low and fixed income earners in the region

Service/project/tariff	Key findings
Regional tariff alignment	• Nearly all customers (93% overall) support the customer equity principle of tariff alignment • Most customers (86% overall) support South Gippsland Water's proposal to unify tariffs across the region

Increasing the volumetric component of water charges	• Most customers (86% overall) support South Gippsland Water's proposal to increase the volumetric component of water charges by approximately 0.6% per year over 5 years
	  • Some customers would like a greater emphasis on the volumetric component to encourage greater water efficiency
	  • Others were concerned about the impacts of the greater emphasis on volumetric charges among those customers who were already water efficient

Tariff choice	• Most customers (79% overall) support South Gippsland Water's decision not to offer customers any tariff choice mainly because of potential difficulties making the "right" choice
Retention of fixed wastewater tariffs	• Nearly all customers (93% overall) support South Gippsland Water's proposal to continue with a fixed residential wastewater service charge
Hardship	• Only half of the participants were aware of the forms of help available for customers if they needed it (52% overall). Some of these customers were only aware of some of the forms of help. • Customers believe that information with the bill is the best method of informing customers about the assistance available • The positioning of "hardship" within revenue may be a deterrent to some customers to contact South Gippsland Water if they experience difficulties paying their bills, where as they may feel more comfortable contacting "customer service" • Customers would also like to see South Gippsland Water offer water audits and other incentives to help these customers become more water efficient

August 2012 survey – results summary

Table 14.4(d): August 2012 Survey Results Summary Table

Q1: How do you rate our overall service?	Very Poor	Poor	Satisfactory	Good	Excellent	Count
	0.7%	4.3%	37.0%	**47.1%**	10.9%	138
Q2: Do you feel the proposed Guaranteed Service Levels are appropriate?			Yes	No	Unsure	Count
			72.9%	9.3%	17.9%	140
Q3: Do you feel the rebate amounts (per breach) are reasonable?			Yes	No	Unsure	Count
			71.2%	11.5%	17.3.9%	139
Q4: After reviewing the capital expenditure projects, do you feel that these projects are important, and this investment into capital expenditure over 5 years, is....?	Too little		About right	Too much	Unsure	Count
	0.8%		**43.6%**	27.1%	28.6%	133
Q5: Are the proposed tariff increases...?	Too little		About right	Too much	Unsure	Count
	1.5%		**52.6%**	31.4%	14.6%	137
Q6: Do you agree with the customer equity principle of tariff alignment?			Yes	No	Unsure	Count
			55.7%	16.8%	27.5%	131
Q7: Do you support South Gippsland Water's proposal to gradually increase the volumetric component of water charges by approximately 0.6% per year over 5 years?			Yes	No	Unsure	Count
			59.7%	30.2%	10.1%	139
Q8: Do you have any further comments regarding our water plan you would like to add?					# of responses	Skipped question
					97	53

From survey responses there were a number of open ended questions and space for comments. The below summarises in the main, the general tone and sentiment of these comments:

Regarding capital expenditure:

A strong anti-desalination feeling with customers came across, with concerns about the cost of desalinated water and the health of the community, who believe that this water will not be safe to drink. In line with this sentiment, there is a push for South Gippsland Water to maintain and expand our existing surface water systems rather than connect to the Melbourne Supply System (despite the Corporations experiences in 2006/07 drought conditions when supply ran short), these customers believe these systems can cater for demand. Customers cite the fact that they believe local water sources are 'theirs' and if there is a connection to Melbourne, then in future Melbourne may draw on local water supplies if this water was needed.

Very little comment was made about any of the other proposed capital expenditure projects.

Regarding tariff increases:

Despite South Gippsland Water stating that this Water Plan aimed to limit the increases passed onto customers, some customers still felt that the increases were too much and linked the increases to the proposal to connect to the Melbourne Supply System. Many customers cited that increases should be in line with consumer price index increases. Some customers commented on the increased levels of financial hardship within the community and their concern for these customers.

In comparison there were also comments regarding moving to a user pays model where significantly more emphasis is placed on the volumetric usage tariff. South Gippsland Water has proposed a gradual increase in the volumetric rate, for some, this seemed too little or they believed that the volumetric rate increase should be accompanied by a corresponding decrease in the service charge.

Regarding Tariff alignment:

Some customers expressed concern regarding the length of time it has taken to unify tariff rates across the organisation and feel that the 2016 target for unified rates is too long. Others were concerned about the fairness of this, if the northern towns would then benefit from the infrastructure at Lance Creek, which the southern region has been paying higher tariffs for.

14.5 How Consultation Feedback has Informed the Water Plan

South Gippsland Water has actively sought to consult with its customer base and utilise the feedback provided. Consultation conducted has been used to inform the preparation of the Water Plan. Customer feedback and opinions have been used to develop those proposals where customers have the most influence and were used not only in development of the draft, but again tested and reviewed in preparing this Water Plan. Throughout this process, South Gippsland Water refers to consultation conducted regarding specific proposals such as:

- Major capital projects;
- Service standards;
- Guaranteed Service Levels (GSLs); and
- Tariff levels and structures, including:
    - The volumetric rate
    - Harmonisation of retail water service charges
    - Tariff options such as seasonal tariffs; and
    - Greater customer tariff choice.

Customer viewpoints are reflected in the resulting South Gippsland Water proposals.

South Gippsland Water conducted customer consultation regarding the content of this Water Plan. The Corporation used internal resource and external expertise in consulting with its customer base. The objectives of consultation were to undertake broad and in-depth consultation on the areas of the Water Plan that customers can provide meaningful input. Consultation has been used to inform both the draft and this Water Plan. Feedback provided by the community regarding the Water Plan has been incorporated into each relevant section of this plan, including tariffs, GSLs, capital projects and service standards.

15. Appendices

The following documents have been referenced within the preceding Water Plan and are located within the *"Water Plan III Appendices"* document:

Appendix 1: South Gippsland Water - Water Supply Demand Strategy

Appendix 2: South Gippsland Water - Water Supply Demand Strategy Addendum

Appendix 3: South Gippsland Water - Water Supply Demand Strategy – Business Case

Appendix 4: South Gippsland Water – Business Case – Poowong, Loch and Nyora Sewerage Scheme (September 2012)

Appendix 5: South Gippsland Water – Business Case – Northern Towns Supply Connection Works – Lance Creek to Korumburra and Korumburra to Poowong (September 2012).

Appendix 6: South Gippsland Water – Business Case – Reticulation Sewers Rehabilitation, Infiltration Curtailment and Relining (September 2012)

Appendix 7: South Gippsland Water – Business Case – Replacement/Rehabilitation of Water Mains (September 2012)

Appendix 8: South Gippsland Water – Business Case – Leongatha Wastewater Treatment Plant Digester (September 2012)

Appendix 9: South Gippsland Water – Business Case – Foster Wastewater Treatment Plant Upgrade (September 2012)

Appendix 10: South Gippsland Water – Business Case –Wonthaggi Sewer System Upgrades (September 2012)

Appendix 11: South Gippsland Water – Business Case – Environmental Obligations (EPA) – (Duty/standby Pump Stations Upgrades) (September 2012)

Appendix 12: South Gippsland Water Community Engagement Plan Water Plan III

Appendix 13: Bartley Consulting Pty Ltd - South Gippsland Water Water Plan III – Consultation (Focus Groups) Phase 1 Report

Appendix 14: Bartley Consulting Pty Ltd - South Gippsland Water Water Plan III – Consultation (Focus Groups) Phase 2 Report

Appendix 15: South Gippsland Water - Water Plan III – Consultation (April Survey) Results

Appendix 16: South Gippsland Water - Water Plan III – Consultation (August Survey) Results