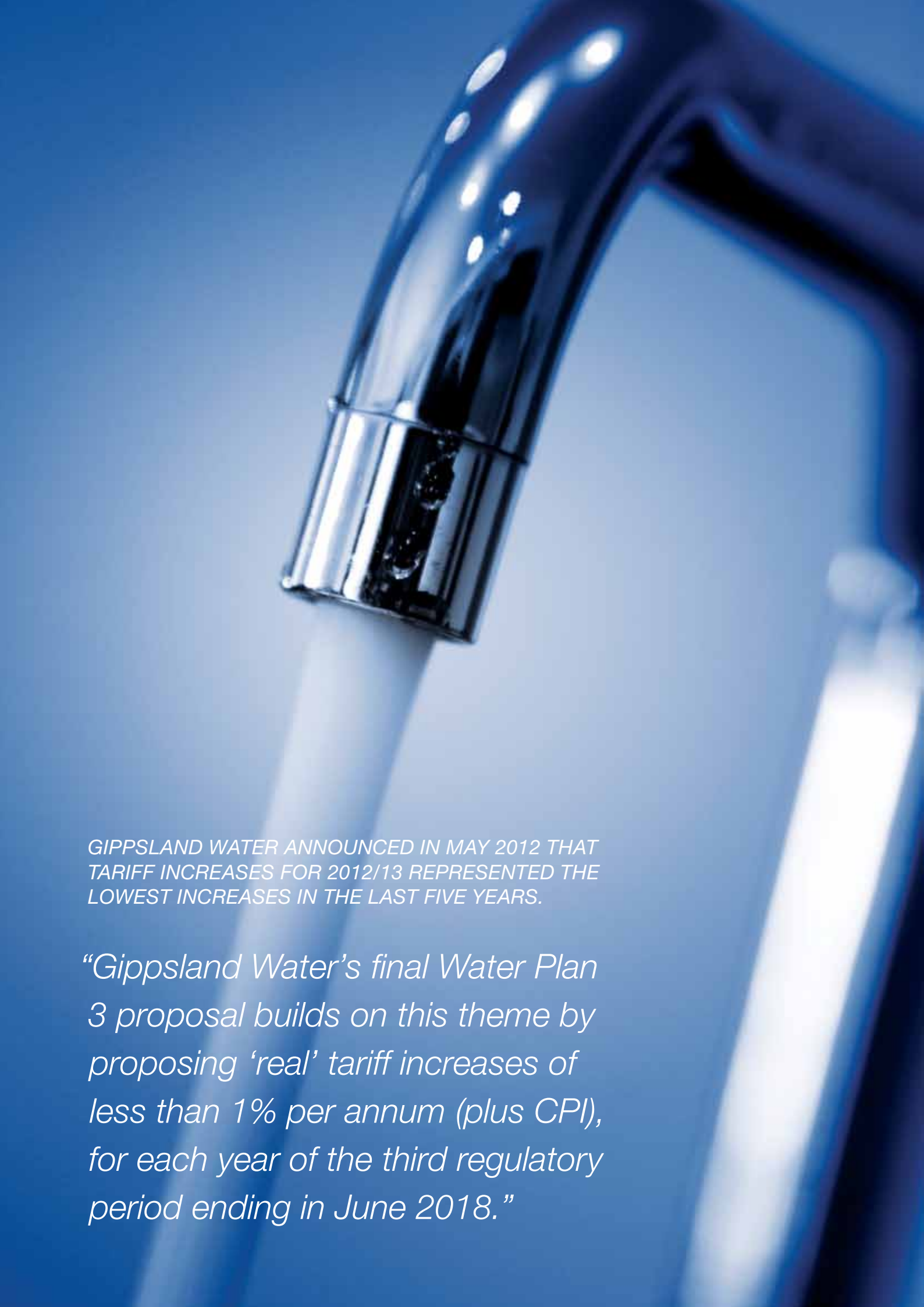
WATER PLAN 3
PROPOSAL

GIPPSLAND
WATER



GIPPSLAND WATER ANNOUNCED IN MAY 2012 THAT TARIFF INCREASES FOR 2012/13 REPRESENTED THE LOWEST INCREASES IN THE LAST FIVE YEARS.

"Gippsland Water's final Water Plan 3 proposal builds on this theme by proposing 'real' tariff increases of less than 1% per annum (plus CPI), for each year of the third regulatory period ending in June 2018."

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EXECUTIVE SUMMARY

The Essential Services Commission's (ESC) 2013 Water Price Review provides water corporations across Victoria with the opportunity to clearly articulate and commit to a set of outcomes and prices to be delivered over the third regulatory period. As part of this review process, Gippsland Water is required to submit a Water Plan covering each year of the regulatory period commencing July 2013 to June 2018.

Gippsland Water's final Water Plan 3 proposal is a document that largely looks forward, focusing on the outcomes to be delivered for the third regulatory period, and the expenditure, for both operational and capital investment purposes, that is needed to deliver those outcomes. Of particular interest to all parties is the impact that these proposed outcomes and expenditures will have on the cost to customers for the supply of water and wastewater services during the regulatory period.

Gippsland Water's final Water Plan 3 proposal identifies key business objectives, risks and proposed prices for the regulatory period. We have created a vision that will provide sustainable, secure and efficient water and wastewater services to our customers. Critical to the successful delivery of these objectives is the financial ability to maintain current product and service standards and to successfully meet ever increasing regulatory, customer and community requirements and expectations.

Gippsland Water released a draft Water Plan in late May 2012, and has sought to engage with customers and the wider community during a two month period of consultation spanning June and July 2012. This consultation process allowed Gippsland Water to detail the outcomes that the business is seeking to deliver, the cost of those outcomes, and the impact on tariffs for services provided. This final Water Plan 3 proposal details the issues identified during the consultation process, and the changes that Gippsland Water has made in response to this feedback. This final Water Plan 3 proposal now forms the basis for seeking approval from the ESC of proposed prices for the third regulatory period.

1. ECONOMIC SETTING

Gippsland Water's final Water Plan 3 proposal has been developed at a time when our customers' ability to pay for essential services, provided on a monopoly basis, is more difficult than ever.

Gippsland Water's tariffs have risen by almost 98% during the five years of the second regulatory period. The fact that these tariffs increases were approved by the ESC, and were based on prudent and efficient expenditure by Gippsland Water; is of little comfort to customers who are facing price rises across a range of utility providers - including significant rises in the electricity, gas and telephone sectors.

During consultation on the draft Water Plan 3 proposal, customer feedback highlighted concerns with high water and wastewater tariffs in general, and high fixed tariffs in particular. Concern was also expressed regarding the rising costs of water and wastewater and the impact this will have on people with low incomes.

Gippsland Water acknowledges the concerns raised and recognises that price rises for water and wastewater services during the third regulatory period must be kept to a minimum. Gippsland Water has looked for operational efficiencies to minimise tariff increases as far as practicable in this final Water Plan 3 proposal. As set-out in chapter 7, the capital cost overruns in relation to the Gippsland Water Factory have also been excluded from the regulatory asset base used to determine tariff increases.

2. OVERVIEW OF PROPOSED TARIFF INCREASES

During the draft Water Plan 3 consultation process, Gippsland Water sought public feedback on two different tariff options. Option one, known as the 'upfront' option, required a small 'CPI plus' increase in 2013/14, followed by 'CPI only' increases in the next four years of the third regulatory period. Option two, based on an annual increase required a smaller 'CPI plus' increase which would occur every year for all five years of the third regulatory period.

Gippsland Water developed a Proposed Tariffs Fact Sheet that outlined the different approaches to allow customers to consider which option they preferred. The fact sheet detailed expected tariffs and included examples of how each option would impact typical households during the third regulatory period. Customers were encouraged to provide feedback on which option they would prefer via Gippsland Water's Share Your View website.

Details of the consultation process are outlined in detail in chapter 2 of this Plan. Given the results of the feedback on proposed tariffs, Gippsland Water has determined that it will proceed with tariff increases based on option two, an annual average increase + CPI for the third regulatory period. Gippsland Water will continue to monitor this position in the lead up to the ESC's Final Decision in June 2013.

This final Water Plan 3 proposal proposes an annual tariff increase of '0.98% plus CPI' for each of the five years of the third regulatory period. This represents a small reduction from the '1.32% + CPI' position outlined during the consultation period, and results mainly from reductions in operating expenditure that have been identified since the draft Water Plan 3 proposal was released in May 2012.

Table E1: Tariff Options

Tariff Option	Draft Water Plan 3 proposal	Final Water Plan 3 proposal
Up-front	'3.92% +CPI'	Not applicable
Annual increase	'1.32% +CPI'	'0.98% +CPI'

Gippsland Water's main residential water and wastewater tariffs are outlined below, given the proposed '0.98% plus CPI' annual tariff increase.

Table E2: Water Service Availability Charge ($ Jan 13)

	Current	Third regulatory period				
Size of Service	12/13	13/14	14/15	15/16	16/17	17/18
20mm	165.42	167.05	168.68	170.34	172.00	173.69

Table E3: Water Usage Charge ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Treated Water per kL	1.9130	1.9317	1.9507	1.9698	1.9891	2.0086

Table E4: Wastewater Service Availability Charge ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Connected property	758.75	766.19	773.70	781.28	788.93	796.67

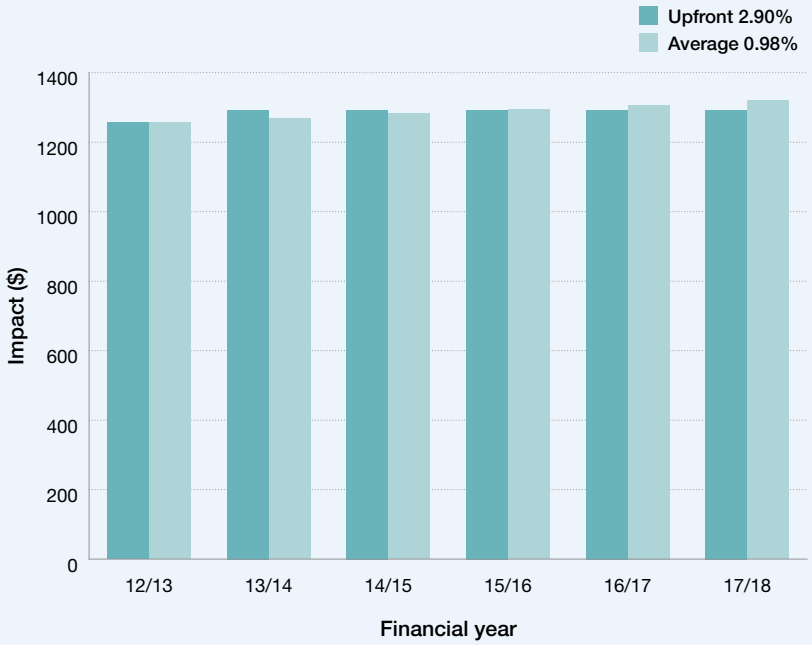
Chapter 7 provides further detail on Gippsland Water's tariffs and how they are impacted by this proposal for the third regulatory period.

3. CUSTOMER IMPACTS – AVERAGE HOUSEHOLD BILL (EXCLUDING CPI)

3.1 Full Service Customer – Average Water Consumption

Assuming average water consumption of 174 kL per annum, figure E1 below outlines a typical household bill for a customer who receives both water and wastewater services. The proposed average '0.98% per annum' increase is shown for comparative purposes along side an 'upfront 2.90%' increase. By 2017/18, an average household bill is $27 more per annum under the '0.98% per annum' increase.

Figure E1: Average Household Bill – Full Service Customer ($ Jan 13 excluding CPI)

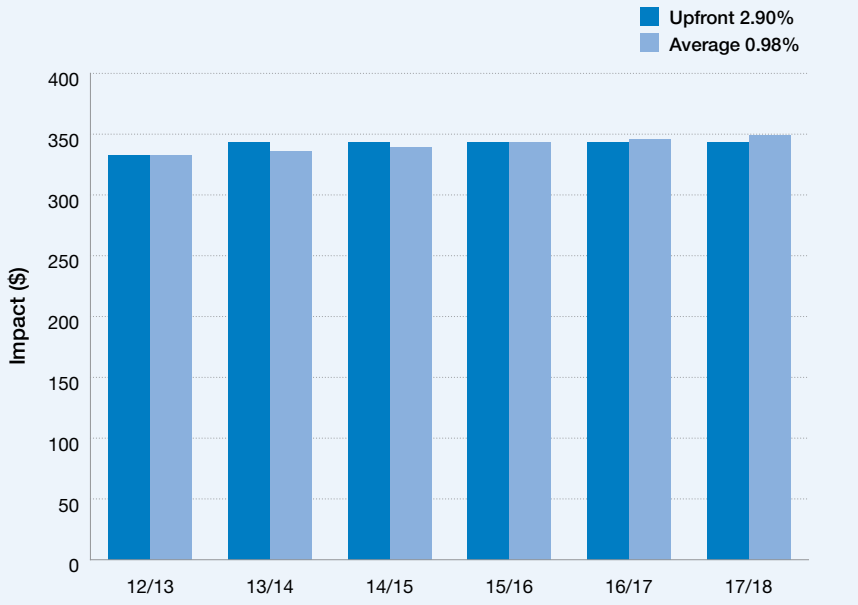


	12/13	13/14	14/15	15/16	16/17	17/18
Upfront 2.90%	$1,257	$1,293	$1,293	$1,293	$1,293	$1,293
Average 0.98%	$1,257	$1,269	$1,282	$1,294	$1,307	$1,320

3.2 Tenant customer – Average Water Consumption

Assuming an average annual water consumption of 174 kL per annum, figure E2 over the page outlines a typical household bill for a customer who is a tenant, and would normally pay water volumetric charges only. The proposed average '0.98% per annum' increase is shown for comparative purposes along side an 'upfront 2.90%' increase. By 2017/18, an average household bill is $6 more per annum under the '0.98% per annum' increase.

Figure E2: Average Household Bill – Tenant Customer ($ Jan 13 excluding CPI)



	12/13	13/14	14/15	15/16	16/17	17/18
Upfront 2.90%	$333	$343	$343	$343	$343	$343
Average 0.98%	$333	$336	$339	$343	$346	$349

Chapter 7 provides further detail in relation to customer impacts for those customers who do not fit the average consumption profile.

4. OVERVIEW OF PROPOSED TARIFF STRUCTURES

The ESC has set out a number of proposed pricing principles (refer Essential Services Commission 2011, 2013 Water Price Review – Tariff Issues Paper, July 2011).

In relation to retail water tariff structures, the ESC proposed that a two part tariff comprising a fixed charge and a volumetric component is preferred to recover a water business's revenue requirement from each tariff class. The current Gippsland Water tariff structure for water is a two part tariff, comprising a fixed service fee, and a volumetric charge. Gippsland Water proposes to continue with this structure in the third regulatory period.

In relation to retail wastewater tariff structures, the ESC proposed that the tariff structure should reflect the cost structure, and may comprise a one or two part tariff (all fixed, all volumetric or a fixed charge and a volumetric component). The current Gippsland Water tariff structure for wastewater comprises a fixed service fee for residential customers, while non residential customers are charged both a fixed service fee and a volumetric charge for wastewater. Gippsland Water proposes to continue with this structure in the third regulatory period.

5. COMMUNITY CONSULTATION ON DRAFT WATER PLAN

Gippsland Water undertook significant consultation on the draft Water Plan 3 proposal after its release in late May 2012. Consultation commenced with a media release. Sixteen formal community consultation sessions were held across the region over the draft Water Plan consultation period.

Each consultation session consisted of a brief presentation by Gippsland Water on the draft Water Plan 3 proposal, and an open forum question and answer session to allow participants to gain a better understanding of the draft Water Plan. Information presentations were made to five community groups who requested Gippsland Water attend their meetings. Total attendance of 217 persons was recorded at these community consultation sessions.

Gippsland Water's main website hosted copies of all draft Water Plan 3 proposal fact sheets, providing customers with unlimited access to this information. In addition, Gippsland Water's Share Your View website hosted a Water Plan 3 specific web page containing customer surveys, information sheets on each survey issues, as well as an electronic feedback facility.

Gippsland Water also advertised the Share Your View website on local television to encourage involvement in the feedback process. The electronic surveys were open for use in June and July, a full two month period. Gippsland Water recorded 379 visitors to the Share Your View website.

Gippsland Water's Customer Consultative Committee took an active interest in the feedback process. The committee considered the issue of service standards in March 2012, while the survey questions were considered during June 2012.

Chapter 2 outlines the results of the consultation process and how the feedback was used in developing this final Water Plan 3 proposal.

6. OVERVIEW OF KEY OUTCOMES FOR THE PERIOD

As the key stakeholder, the Victorian Government outlines the obligations that it requires the corporation to meet in a Statement of Obligations issued by the Minister for Water. As Gippsland Water's final Water Plan 3 proposal was finalised, a new draft set of obligations has been proposed by the Minister for Water. A number of the key obligations set out in the new draft have been outlined in chapter 3.

In addition, a range of regulators have powers under legislation to impose obligations on the corporation. These regulators include the ESC, the Department of Health (DoH) and the Environment Protection Authority (EPA). The range of obligations imposed by these regulators is far-reaching. As such, the regulators provide guidance to all water corporations on the issues of concern to the regulator in the lead up to finalising Water Plans for the next period. Advice on obligations for the period to June 2018 has been received from DoH, EPA and ESC. These obligations have also been noted in chapter 3.

Gippsland Water has developed proposals for 29 service standards for the third regulatory period commencing July 2013. Gippsland Water has outlined these service standards in chapter 3, including:

- a description of the service standard;
- how the service standard is measured;
- Gippsland Water's -
  - current targets;
  - performance over the past five years;
  - Water Plan 3 proposal; and
- the rationale for adopting the proposed Water Plan 3 target.

7. OVERVIEW OF OPERATIONAL EXPENDITURE FORECASTS

During the recent consultation process on Gippsland Water's draft Water Plan 3 proposal, Gippsland Water did not identify any major changes that were required to be made in response to feedback received from customers during the consultation process.

Since the release of the draft Water Plan 3 proposal, Gippsland Water has identified a number of changes to operating expenditure. This has occurred due to improvements in cost estimates for some activities becoming available since the draft was released.

Detailed in Table E5 is an overview of operating expenditure required to allow Gippsland Water to meet its obligations and deliver services during the regulatory period. Gippsland Water's operating expenditure forecast for the five year third regulatory period totals $361.83M.

Table E5: Overview Of Operating Expenditure ($ Jan 13 – millions)

Function	13/14	14/15	15/16	16/17	17/18	Total
Water	28.01	28.16	28.40	28.54	28.64	141.75
Wastewater	38.64	38.57	39.29	39.28	39.74	195.52
Sub total	**66.65**	**66.73**	**67.69**	**67.82**	**68.37**	**337.27**
Licence Fees	0.45	0.43	0.43	0.43	0.43	2.18
Environmental Contribution	4.70	4.59	4.47	4.36	4.26	22.38
Total Cost	**71.80**	**71.75**	**72.60**	**72.62**	**73.06**	**361.83**

In total, proposed operational expenditure for the third regulatory has reduced by approximately $3M from the draft Water Plan 3 proposal.

8. OVERVIEW OF CAPITAL EXPENDITURE FORECASTS

During the recent consultation process on Gippsland Water's draft Water Plan 3 proposal, Gippsland Water did not identify any major changes that were required to be made in response to feedback received during the consultation process.

Since the release of the draft Water Plan 3 proposal, Gippsland Water has identified some changes to capital expenditure. This has occurred due to improvements in cost estimates for some projects becoming available since the draft was released. Total capital expenditure however remains unchanged from that proposed in the draft.

Table E6: Overview Of Capital Expenditure ($ Jan 13 – millions)

Function	13/14	14/15	15/16	16/17	17/18	Total
Water	8.47	11.43	8.58	20.48	18.12	67.07
Wastewater	33.17	43.47	29.55	14.21	15.46	135.87
Sub-total	**41.63**	**54.90**	**38.13**	**34.69**	**33.59**	**202.94**
Less						
Govt Contributions	-3.35	Nil	Nil	Nil	Nil	-3.35
Customer Contributions	-2.66	-2.81	-5.17	-2.86	-3.52	-17.01
Total	**35.62**	**52.09**	**32.96**	**31.84**	**30.07**	**182.58**

9. OVERVIEW OF REVENUE REQUIREMENT

Detailed in Table E7 is an overview of the revenue requirement for Gippsland Water to meet its obligations and deliver services during the regulatory period. The revenue requirement consists of several components, namely:

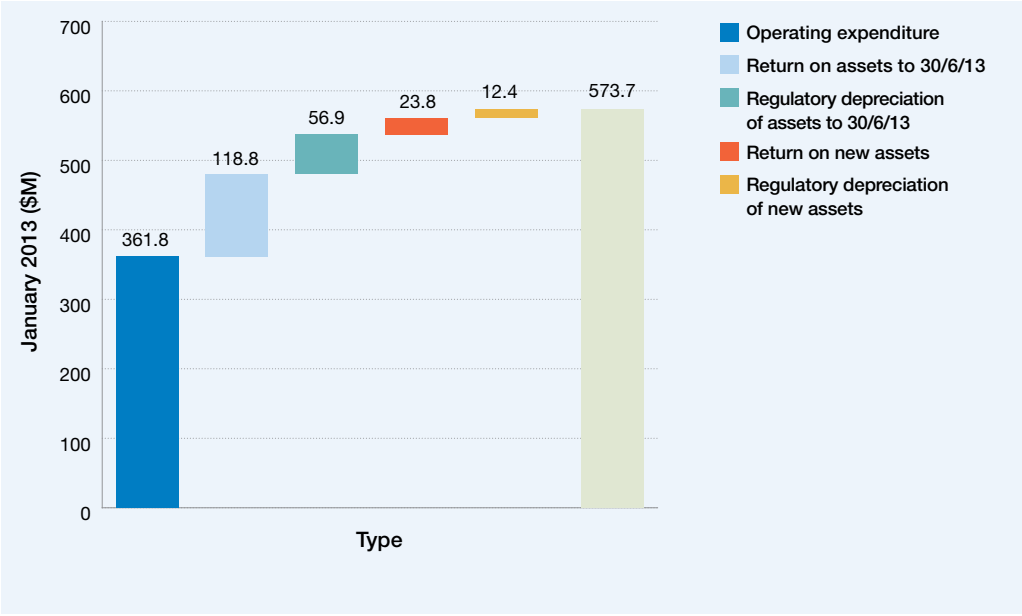
- operating expenditure – representing the expenditure outlined in chapter 4 that Gippsland Water believes should be incurred to ensure the delivery of obligations during this period;
- return on assets to June 2013 - representing a cost of capital return, based on the agreed Weighted Average Cost of Capital (WACC) value of 5.1%, on pre-existing assets, whether those assets were constructed during the first or second Water Plan period, or before the commencement of regulation by the ESC in 2005/06;
- regulatory depreciation of assets to June 2013 - representing the costs associated with the use, wear and tear of pre-existing assets;
- return on new assets - representing a cost of capital return, based on the agreed WACC value of 5.1%, on assets to be constructed during the third regulatory period, the details of which are outlined in chapter 5; and
- regulatory depreciation on new assets - representing the costs associated with the use, wear and tear of new assets brought into service during the third regulatory period.

Table E7: Revenue Requirement By Year – Third Regulatory Period ($ Jan 13 – millions)

	13/14	14/15	15/16	16/17	17/18
Operating Expenditure	71.80	71.75	72.60	72.62	73.06
Return on assets to 30/6/13	25.02	24.39	23.76	23.11	22.48
Regulatory depreciation of assets to 30/6/13	11.38	11.38	11.38	11.38	11.38
Return on new assets	0.90	3.08	5.15	6.64	8.02
Regulatory depreciation on new assets	0.46	1.52	2.57	3.49	4.37
Total Revenue Requirement	**109.56**	**112.13**	**115.46**	**117.25**	**119.32**

Gippsland Water's total revenue requirement increases from a base of $109.56M in 2013/14 to total of $119.32M in 2017/18. This increase of $9.76M from the 2013/14 year stems from a $1.26M increase in operational expenditure over the third regulatory period combined with an $8.50M increase resulting from movements in new and existing assets (return on assets and regulatory depreciation). Figure E3 displays the composition of the revenue requirement.

Figure E3: Composition of Revenue Requirement



10. DEMAND FORECASTING

Of all the tasks to be undertaken to bring a Water Plan together, no issue is perhaps more difficult than the task of determining demand forecasts. These forecasts underpin the calculation of future revenues, and thus directly impact on any proposed tariff movements during the third regulatory period. In this plan, Gippsland Water must set out forecasts for the range of services that it provides. Forecasts must be prudent and reasonable, and take into account relevant sources of reference.

This includes forecasting the levels of growth that will occur across Gippsland Water's customer base over the next six years in relation to water supply services, including:

- Residential water connections;
- Non-residential water connections;
- Fire service connections;
- Residential water consumption;
- Non-residential water consumption; and
- Major customer water consumption.

This also includes forecasting the levels of growth that will occur across Gippsland Water's customer base over the next six years in relation to wastewater and trade waste services, including:

- Residential wastewater connections;
- Non-residential wastewater connections;
- Non-residential wastewater volumes;
- Major customer wastewater volumes; and
- Trade waste connections.

Since releasing the draft Water Plan 3 proposal, Gippsland Water has updated its connections growth modelling to include actual data to the end of June 2012. This additional six months of actual data has demonstrated a significant slowdown in residential connections growth since January 2012.

Gippsland Water has chosen not to adjust future forecasts, from July 2012 onward, downward at this stage. The starting position from July 2012 has however been revised down to reflect actual connections. Gippsland Water will continue to monitor actual growth and may elect to revise connections forecasts during the lead up to the ESC's Draft Decision and Final Decision, should the slowdown continue deep into 2012/13.

Chapter 6 of this Plan provides a comprehensive look at demand forecasts used by Gippsland Water for the six year period to 30 June 2018.

11. DEALING WITH RISK AND UNCERTAINTY

Gippsland Water has implemented a consolidated business wide Risk Management Framework that aligns with the Victorian Government Risk Management Framework and AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines, released during 2009.

Gippsland Water also maintains an Emerging Risk Register. The Emerging Risk Register is a tool that enables the organisation to forecast, track and manage emerging risks that may impact it. Responsibilities for each emerging risk are allocated and monitored.

In formulating long-term financial forecasts for the final Water Plan 3 proposal, Gippsland Water has identified a range of issues that can be categorised as either a risk or an uncertainty. These include:

- carbon price flow through on chemicals and other good and services;
- new Customer Contribution (NCC) regime changes;
- forecast connections growth;
- residential consumption forecasts; and
- contingency for major events.

These risks and uncertainties are discussed in more detail in chapter 9 of the Plan.

SECTION 1

The ESC undertakes an extensive review of the final Water Plan submitted by Gippsland Water. The ESC consults with both Gippsland Water and the public before authorising prices for the next regulatory period.

INTRODUCTION

1.1 GIPPSLAND WATER IN PROFILE

The Central Gippsland Region Water Corporation (trading as Gippsland Water) was formed in 1994 and its geographical reach extends across four local government municipalities in central Gippsland. Water is harvested under a series of 11 separate bulk entitlements from rivers and tributaries within the region and approximately 70% of this supply is sold as raw water to major industrial customers. The remaining 30% of this water supply is sold as treated (potable) water to more than 63,000 residential and non-residential customers via an asset base comprised of 17 individual reticulated supply systems.

Gippsland Water collects and treats wastewater from more than 54,000 customers, including industries prominent in the energy, paper, food, oil and gas sectors, with a combined volume approaching 24% of the state's total trade waste discharge.

Figure 1.1: Gippsland Water - Operating Area

1.2 STRATEGIC DIRECTION

Gippsland Water's annual strategic planning process seeks to ensure that Gippsland Water's focus remains attuned to changing needs across the region. In late 2011, Gippsland Water determined that the current strategic plan provided the corporation with a clear direction to deliver on a range of objectives that respond to the challenges facing the corporation and continue to meet the needs of customers, stakeholders and the community. Details of Gippsland Water's Strategic Plan are outlined below.

Our Mission

We will manage the resources in our care in a manner that secures social, environmental and economic benefits to our customers, stakeholders and the Gippsland region.

Our Vision

We will deliver value in sustainable water and waste management within central Gippsland.

Our Values

Our values guide us to fulfil our mission and vision. We are committed to:

- Open, ethical and fair conduct;
- Community engagement and trust;
- Safety and wellbeing;
- Teamwork;
- Developing knowledge and capability;
- Innovation; and
- High levels of customer satisfaction.

Gippsland Water understands its obligation to meet the expectations of stakeholders, customers and the wider community and undertakes to meet these expectations through an organisational approach that focuses on four key areas:

- Resource sustainability;
- Customers, stakeholders and community;
- Governance; and
- Organisational sustainability.

Table 1.1: Gippsland Water's Areas Of Focus And Strategic Plan Objectives

Resource Sustainability	
Strategic Plan Objectives	1.1 To secure the reliable supply of safe water and the management of wastewater to the region.
	1.2 To use and re-use our natural resources efficiently.
	1.3 To ensure a whole of catchment approach in the management of natural resources.
	1.4 To make best use of the strategic, financial and environmental value of Gippsland Water's prescribed waste and agricultural businesses.
Customers, Stakeholders and Community	
Strategic Plan Objectives	2.1 To manage our resources to provide value to customers and stakeholders.
	2.2 To provide strong leadership and advocacy in sustainable water management.
Governance	
Strategic Plan Objectives	3.1 To comply with current and emerging statutory and regulatory obligations.
Organisational Sustainability	
Strategic Plan Objectives	4.1 To ensure a balanced approach to our people.
	4.2 To continually improve the efficiency and effectiveness of our business processes.
	4.3 To manage all assets in an efficient and sustainable manner.
	4.4 To ensure the long term financial viability of Gippsland Water.

Gippsland Water's final Water Plan 3 proposal puts into place the operational imperatives required to achieve the strategies identified by Gippsland Water, delivering key business objectives for the third regulatory period, from July 2013 to June 2018, and meeting the needs of customers, stakeholders and the community.

1.3 THE OPERATING ENVIRONMENT

Gippsland Water plays a vital role in delivering water and wastewater services for today, while planning for tomorrow; to ensure services can be delivered to satisfy the needs of both current and future generations. Despite significant rainfall during both the 2010/11 and 2011/12 financial years, this planning and delivery activity is being undertaken during a period where the security of water resources is of increasing concern, and customer, stakeholder and community expectations continue to grow.

Future planning requirements are being addressed through construction and renewal of water and wastewater infrastructure assets at a time when upward cost movement is significant. Maintaining the commercial viability of the corporation, while constraining tariff increases to customers via the regulatory process remains a difficult and challenging process.

The emergence of changes in climatic conditions, and increasing concerns surrounding environmental protection requires Gippsland Water to understand the environmental impact of its operations across the region, identify opportunities for improvement and move to address these opportunities in a timely manner.

1.4 THE REGULATORY ENVIRONMENT

Gippsland Water is required to meet a range of obligations set out by stakeholders and regulators.

As the key stakeholder, the Victorian Government outlines the obligations that it requires the corporation to meet in a Statement of Obligations issued by the Minister for Water. As Gippsland Water's final Water Plan 3 proposal nears completion, a new draft set of obligations has been proposed by the Minister for Water. A number of the key obligations set out in the new draft have been outlined in chapter 3.

In addition, a range of regulators have powers under legislation to impose obligations on the corporation. These regulators include the Essential Services Commission (ESC), the Department of Health (DoH) and the Environment Protection Authority (EPA). The range of obligations imposed by these regulators is far-reaching. As such, the regulators provide guidance to all water corporations on the issues of concern to the regulator in the lead up to finalising Water Plans for the next period. Advice on obligations for the period to June 2018 has been received from both DoH and EPA. These obligations have also been noted in chapter 3.

Rather than an exhaustive list, these DoH and EPA obligations are the key requirements outlined in the regulators' guidance papers to water corporations. To illustrate this point, Gippsland Water holds an EPA Victoria Corporate Licence. While 10 EPA obligations are outlined in chapter 3, the EPA Corporate Licence itself outlines a significant range of sustainability commitments and a total of 36 environmental performance conditions which Gippsland Water must comply with in the operation of the corporation's wastewater and waste management facilities.

Similarly, the Safe Drinking Water Framework administered by DoH contains significant requirements including the development of risk management plans for each drinking water supply, independent auditing of these risk management plans, compliance to water quality standards and disclosure of water quality results to the public. In addition, DoH requires audits to be undertaken in order to verify risk management plans are being implemented and are managing risks.

In both instances these broad ranging requirements are part of the day-to-day operation of the corporation's water, wastewater and waste treatment functions and are not outlined in the table.

In developing this final Water Plan 3 proposal, Gippsland Water has taken into account the guidance provided by DoH and the EPA. Appendices 2, 3, and 4 outline the corporation's response to the issues raised.

1.5 DEVELOPING A WATER PLAN

As noted above, the Victorian Minister for Water issues a Statement of Obligations to all Victorian Water corporations. Gippsland Water's Statement of Obligations includes the requirement for Gippsland Water to develop a Water Plan. The ESC regulates the water industry in Victoria and co-ordinates the Water Plan process.

Initially, Gippsland Water is required to develop a draft Water Plan and release that draft to customers and the wider community for comment and feedback. Gippsland Water is required to consider this feedback and then prepare a final Water Plan to submit to the ESC.

The ESC undertakes an extensive review of the final Water Plan submitted by Gippsland Water. The ESC consults with both Gippsland Water and the public before authorising prices for the next regulatory period. Water Plan periods are typically five years in duration.

Draft Water Plan 3 Proposal

Gippsland Water's draft Water Plan 3 proposal, released in late May 2012, outlined Gippsland Water's proposed tariffs, operational expenditure requirements and capital expenditure requirements for the five year period from July 2013 to June 2018. The draft Water Plan 3 proposal also outlined the service standards Gippsland Water sought to deliver to its customers over the five year period. Chapter 2 of this Plan outlines the consultation process and feedback received.

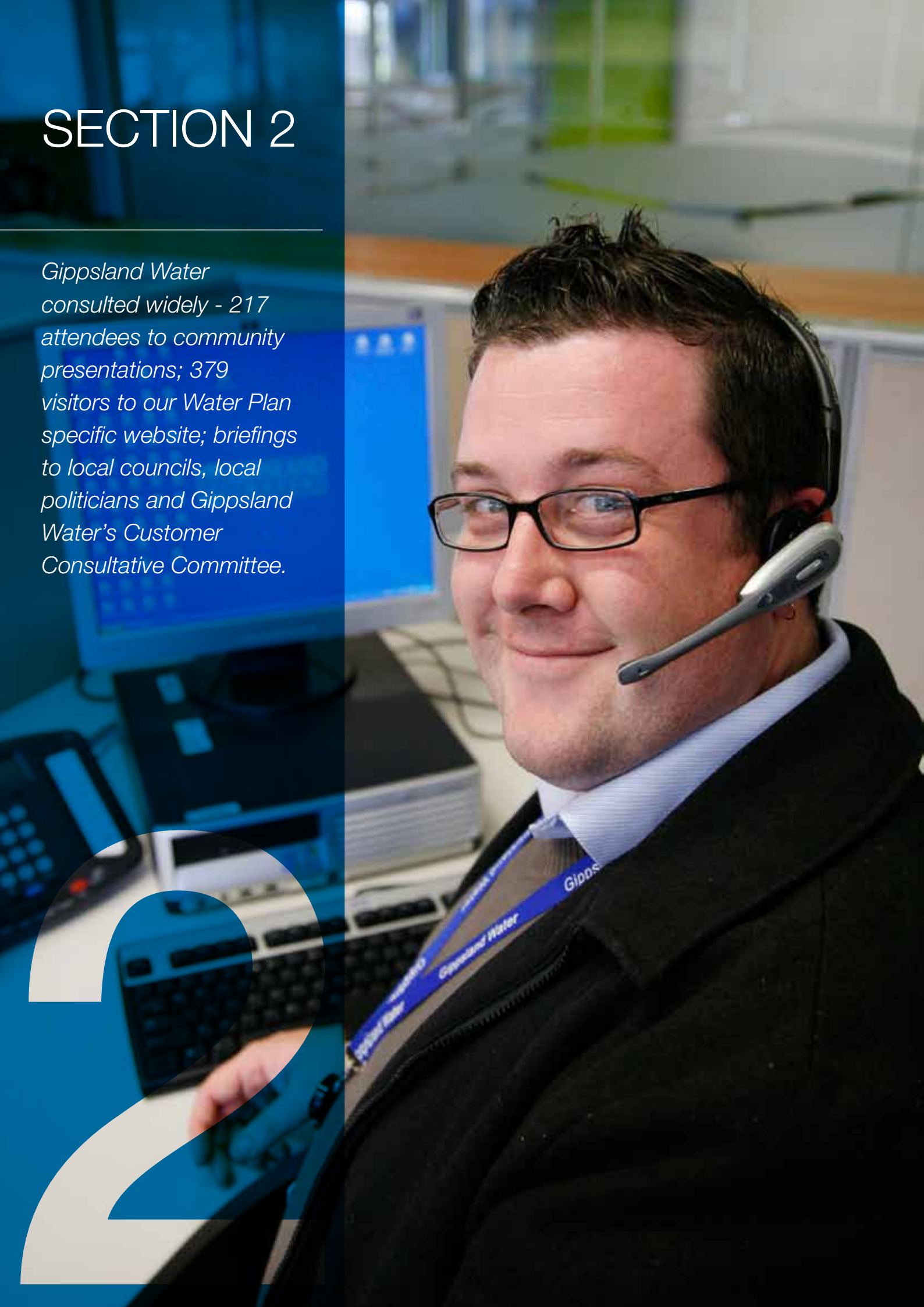
Final Water Plan 3 Proposal

Gippsland Water's final Water Plan 3 proposal has been developed after consideration of feedback from the community consultation undertaken since the draft proposal was released. The timing of final proposal submission has also allowed Gippsland Water to update demand forecasts with actual data for the six months to June 2012. Operational and capital expenditure programs have been reviewed and modified where required, to ensure the final Water Plan 3 proposal remains accurate.

Like the draft proposal before it, the final Water Plan 3 proposal outlines Gippsland Water's proposed tariffs, operational expenditure requirements and capital expenditure requirements for the five year period from July 2013 to June 2018. The final Water Plan 3 proposal also outlines the service standards Gippsland Water will seek to deliver to its customers over the third regulatory period.

SECTION 2

Gippsland Water consulted widely - 217 attendees to community presentations; 379 visitors to our Water Plan specific website; briefings to local councils, local politicians and Gippsland Water's Customer Consultative Committee.



CONSULTATION

2.1 OBJECTIVES OF GIPPSLAND WATER'S CONSULTATION PROCESS

Gippsland Water developed an engagement strategy for the 2013 Water Price Review process. The key objective outlined in the engagement strategy was to engage with customers, the community, stakeholders and employees in an inclusive participation program that would assist the corporation to create and deliver a Water Plan that seeks to meet the reasonable needs and expectations of these parties.

Gippsland Water identified that this key objective would be achieved by:

- delivering a purpose-driven engagement process that provided sufficient and reasonable opportunities for customers, community, stakeholders and employees to actively participate in Gippsland Water's decision-making process for the development of Water Plan 3;
- actively engaging and consulting with a broad cross-section of Gippsland Water's customers, community, stakeholders and employees to achieve a transparent and holistic approach to consultation;
  - effectively applying the findings of the consultation process to develop mutually beneficial outcomes which are reflected in the final Water Plan 3 proposal, and protect the long-term interests of customers, community, stakeholders and employees with regards to price, quality and service reliability;
- setting in place ongoing evaluative and feedback mechanisms throughout the consultation process to ensure that customers, community, stakeholders and employees are aware of input received and impact on the final Water Plan 3 proposal; and
- demonstrating that Gippsland Water is responsive, engaged and connected with its customers, community, stakeholders and employees' needs.

2.2 STEPS INVOLVED IN THE CONSULTATION PROCESS AND THE EXPECTED DELIVERABLES IN EACH STEP

2.2.1 Step One – Understanding The Size Of The Consultation Task

The Water Plan 3 timeline covers an extended period of more than 18 months. Gippsland Water elected to break this period into several consultation phases, as outlined below.

a) Development consultation phase

The development phase of Water Plan 3 drew on a range of existing consultation mechanisms to formulate the key deliverables that were set out in the draft Water Plan 3 proposal, including input from customers, community, stakeholders and employees on issues identified by Gippsland Water.

b) Draft Water Plan consultation phase

When the draft Water Plan 3 proposal was released, Gippsland Water initiated an interactive consultation and engagement program with customers, community, stakeholders and employees.

This program was used to gain feedback from customers, community, stakeholders and employees about views regarding the content of the draft Water Plan 3 proposal and the services and outcomes Gippsland Water was proposing to deliver during the third regulatory period.

c) Feedback and outcome consultation phase

This phase of the consultation was used to inform customers, community, stakeholders and employees about their impact on the development of Water Plan 3, and to demonstrate how Gippsland Water applied the findings of the consultation process.

Table 2.1: Consultation Phase Timelines

Phase	Date commenced	Date complete
Development consultation	October 2011	May 2012
Draft Water Plan consultation	June 2012	September 2012
Feedback and outcome consultation	September 2012	June 2013

2.2.2 Step Two - Identifying A Target Audience

Representatives from across Gippsland Water's customer base and stakeholder groups were encouraged to become actively involved in this consultation process. Gippsland Water's target audience for the Water Plan 3 Engagement Strategy distinguished between:

a) Customers

The consultation program sought to engage a broad cross-section of Gippsland Water's customer base, including (but not limited to):

- General customers
- Customers in the low socio-economic percentile
- Pensioners and senior customers
- Non-residential customers
- Major customers

b) Community

The consultation program sought to engage with community groups including

- local 'town or issue' based interest groups
- Business development groups
- Environmental groups
- Welfare groups

Gippsland Water wrote to more than 70 local community groups prior to the release of the draft Water Plan 3 proposal to determine interest in having Gippsland Water provide an information session to the group. A range of local groups and clubs took up this opportunity during the consultation period.

c) Stakeholders

The consultation program also sought to engage local stakeholders, particularly local councils and political representatives whose constituents are impacted by Gippsland Water's services and operations. Wellington Shire Council, Baw Baw Shire Council and Latrobe City Council were all briefed by Gippsland Water on the draft Water Plan 3 proposal, and the likely impacts on their local area.

2.2.3 Step Three – Determine The Structure Of The Consultation Process

The consultation process was structured around providing customers with the opportunity to significantly improve their level of understanding in relation to Gippsland Water's operations across the region.

The use of a series of fact sheets, rather than a formal technical document was identified as the method most likely to assist customers in understanding more about the corporation. Fifteen fact sheets covering a range of topics were identified and prepared.

A series of formal community presentations in major towns, aided by a significant media presence were planned as the main form of consultation. These formal presentations were complemented by advertised visits to a number of smaller towns across the region.

Internet based information and feedback mechanisms were included as a significant enhancement to plans to engage the community through a series of formal community presentations. Surveys on key issues and that ability to provide 'electronic' feedback were identified as key components in the effort to gain feedback.

Gippsland Water's Customer Consultative Committee (CCC) was also identified as a key source of independent advice. The committee was invited to participate in a range of activities to inform the development of a final Water Plan 3 proposal.

2.2.4 Step Four – Identify Specific Opportunities For Customer Feedback

A range of specific issues were identified that Gippsland Water sought direct engagement on during the draft Water Plan consultation phase. These specific issues included:

- Service Standards
  - Did customers know what they were?
  - When informed, did customers care?
  - Which were seen as most important?
  - Did customers have any comments on proposed service standards?
  - Were there any standards missing?
- Guaranteed Service Levels (GSL)
  - Did customers know what they were?
  - When informed, did customers care?
  - Which GSLs did customers prefer should a GSL scheme be implemented?
- Tariffs
  - What concerns did customers have with current tariffs?
  - What price path would customers prefer for future tariff increase?
- Billing options
  - Would more frequent, thus lower bills be preferable to current arrangements?
  - If so, what frequency of billing is sought?
  - Is bill clarity an issue?
  - If so, what improvements should be made?

2.3 CONSULTATION METHODS AND KEY DATES

Gippsland Water undertook significant consultation on the draft Water Plan 3 proposal after its release in late May 2012. Consultation commenced with a media release. Representatives from the Latrobe Valley Express and the Warragul Gazette attended a presentation, and a question and answer session in Traralgon that was made available to all local media outlets.

2.3.1 Community Presentations

Sixteen formal community consultation sessions were held across the region over the draft Water Plan consultation period. Four sessions were provided at selected major towns (two afternoon and two evening) to encourage participation.

Each consultation session consisted of a brief presentation by Gippsland Water on the draft Water Plan 3 proposal, and an open forum question and answer session to allow participants to gain a better understanding of the draft Water Plan. Sessions and attendances were as follows:

- Warragul (13 June 2012): 2 afternoon sessions;
- Warragul (13 June 2012): 2 evening sessions;
- Sale (14 June 2012): 2 afternoon sessions;
- Sale (14 June 2012): 2 evening sessions;
- Moe (19 June 2012): 2 afternoon sessions;
- Moe (19 June 2012): 2 evening sessions;
- Traralgon (20 June 2012): 2 afternoon sessions;
- Traralgon (20 June 2012): 2 evening sessions; and
- small towns (various dates): 7 day time.

(Total attendance, all sessions – 62)

Information presentations were made to all community groups who requested Gippsland Water attend their meetings. These groups included:

- Moe Ratepayers Association (26 June 2012);
- Seaspray Ratepayers Association (10 July 2012);
- Trafalgar Probus Club (5 July 2012);
- Morwell Probus Club (12 July 2012); and
- Traralgon Community Development Association (25 July 2012).

(Total attendance, all sessions – 155)

2.3.2 Access To Web Based Information

Gippsland Water's main website hosted copies of all draft Water Plan 3 proposal fact sheets, providing customers with unlimited access to this information. In addition, Gippsland Water's Share Your View website hosted a Water Plan 3 specific web page containing customer surveys, information sheets on each survey issues, as well as an electronic feedback facility.

Gippsland Water also advertised the Share Your View website on local television to encourage involvement in the feedback process. The electronic surveys were open for use during June and July 2012.

2.3.3 Customer Consultative Committee (CCC)

Gippsland Water's CCC took an active interest in the feedback process. The committee considered the issue of service standards in March 2012, while the survey questions were considered during June 2012.

2.4 CUSTOMER CONSULTATION OUTCOMES

2.4.1 Community Presentations

During the community consultation process, participants took the opportunity to raise a number of issues with Gippsland Water representatives. The major topics of conversation during the presentations were as follows:

a) The Water Plan process (21 'hits')

- How does Gippsland Water make the decisions about operational and capital works?
- Are Gippsland Water's decisions were made at a local level?
- What forms of ongoing consultation occurred as part of the Water Plan?
- Enquiries as to what kinds of ongoing monitoring of the Water Plan from the ESC occurs.
  - Gippsland Water feedback during presentations: Gippsland Water representatives responded to all questions in relation to process, including highlighting the ESC's annual Performance Reports, the Water Plan review process and the ESC's own consultation process for Water Plan 3.

b) Gippsland Water Factory (GWF) (15 'hits')

- Customers were concerned the GWF is a 'white elephant'; and is not being used or operated in the way that it should.
- Customers were interested in knowing if the GWF will pay for itself eventually (the money from revenue will pay back the construction costs of the project).
- The total and final cost of the GWF project was an area of particular interest and why it went so far above budget.
- Some concern that there are two large capital expenditure items for the GWF in this Water Plan, and the impression that the project is just costing more and more.
- Enquiries as to why the government only contributed $50M towards the total cost of the project.
  - Gippsland Water feedback during presentations: Gippsland Water representatives responded to all questions in relation to the GWF including providing an update on current operational status, the final cost of the GWF, ongoing capital requirements and how to access government reports of the construction of the GWF.

c) High tariffs in general (15 'hits') and high fixed tariffs in particular (7 'hits')

- Concern with the rising costs of water and wastewater and the impact this will have on people with low incomes.
- Concern that tariffs in Melbourne are much cheaper than Gippsland Water's tariffs.
- There is a common concern that the fixed wastewater charge is extremely high, especially compared to other water corporations and the fixed water charge.
- Customer concern that the fixed wastewater charge is the same price for a house of six people as it would be for a single person household. This is despite the smaller household generating much less wastewater.
  - Gippsland Water feedback during presentations: Gippsland Water representatives explained efforts to minimise future tariff increases in the knowledge that costs for a range of services including water and wastewater had increased significantly in recent years. Significant efforts were made to explain the high costs of wastewater treatment and the perils of introducing a volumetric wastewater tariff, including cost shifting to tenants, the lack of wastewater meters and the inadequacy of estimation processes based on water consumption as a proxy for wastewater volumes.

d) Loch Sport Sewerage Scheme (5 'hits')

- This project was in the last Gippsland Water Water Plan and is also in this Water Plan. Customers were concerned they were paying for it twice.
- There is concern and some anger that people who do not live in Loch Sport still have to pay for the scheme. Feels like their tariffs are benefiting people with holiday homes in a completely different town.
- Some customers were enquiring whether the Loch Sport project can be stopped.
  - Gippsland Water feedback during presentations: Gippsland Water representatives took customers through the final Water Plan 2 Decision which deferred the unfunded component of the Loch Sport project until Water Plan 3. Representatives also explained that Loch Sport was a Government approved project, sought by Wellington Shire Council and supported by the EPA as the best solution to alleviate significant problems associated with septic tanks and their impact on the RAMSAR listed Gippsland Lakes.

e) No other issue was raised more than 3 times during the entire consultation process.

2.4.2 Share Your View Website

a) Share Your View website statistics

- 379 visitors to website.
- 353 information sheets downloaded. Information sheets were specifically designed around the survey questions. The Proposed Tariffs sheet accounted for 40% of total downloaded.
- 44 visitors (11%) completed the Proposed Tariffs Survey.
- 40 visitors (10%) completed the GSLs Survey.
- 58 visitors (15%) completed the Billing Options Survey.

b) Share Your View Survey Results

- Proposed Tariffs Survey

  Visitors were asked to select one of two options proposed.

  – 21 of 44 visitors (48%) preferred the '3.92% +Consumer Price Index (CPI) up-front' option.
  – 23 of 44 visitors (52%) preferred the '1.32% +CPI annual increase' option.

- GSLs Survey

  Visitors were asked to select which GSLs they would prefer if a GSL scheme was available. Visitors were able to choose more than one GSL from a list of four.

  – 15 (37%) chose the 'more than 5 unplanned water interruptions in a year' GSL.
  – 22 (55%) chose the 'sewerage spill inside my house is not contained within one hour' GSL.
  – 7 (17%) chose the 'more than 3 unplanned sewerage interruptions in a year' GSL.
  – 21 (52%) chose the 'water supply interrupted by an unplanned event for more than 5 hours' GSL.

  Visitors were also encouraged to review the entire list of Victorian water corporation GSLs provided and nominate any others they were interested in. No nominations were made.

  There was no option to say 'we do not want GSLs', which was the preference of some customers.

- Billing Options Survey

  Visitors were asked whether they would prefer bills more frequently.

  – 27 of 58 visitors (47%) preferred bills more frequently.
  – 31 of 58 visitors (53%) preferred the status quo.

  Those visitors who preferred more frequent bills indicated their preference.

  – 7 of 27 visitors (26%) preferred bills 4 times per year.
  – 20 of 27 visitors (74%) preferred bills 6 times per year.

  Visitors were also asked whether they would prefer electronic bills.

  – 24 of 58 visitors (41%) indicated this would be of benefit.
  – 34 of 58 visitors (59%) would not.

  Visitors were also asked whether they would pay a little more for these extra services.

  – 56 of 58 visitors (97%) said 'no'.

- Share Your View electronic feedback

  – 32 visitors left feedback on a range of issues.
  – 20 visitors (62%) indicated fixed tariffs were too high.
  – 7 visitors (22%) indicated that total costs were too high.
  – 2 visitors (6%) indicated that increasing the billing frequency should be considered.

2.4.3 Customer Consultative Committee

As noted above, Gippsland Water's CCC reviewed the draft Water Plan 3 proposal survey questions in late June 2012. The CCC's responses were as follows:

- Proposed Tariffs Survey – majority preferred option 2, the 1.32% +CPI annual increase option;
- GSLs Survey – mixed response. Some Committee members saw merit in being proactive and demonstrating goodwill. Other members concerned that customers should not be rewarded for something that goes wrong. No specific GSL preferred; and
- Billing Options Survey – both the issue of more frequent bills and electronic bills drew inconclusive responses with some members in favour of the concepts while others were not.

Gippsland Water's CCC also discussed service standards in March 2012. The discussion was conducted 'blind', that is before the CCC learned about existing service standards the corporation has in place. CCC members indicated that service standards should be "kept simple", "be measurable" and cover "reliability of service, quality of service and response times".

While water industry service standards could not be said to be 'simple', the existing Gippsland Water service standards adequately cover the service, quality and response time issues raised.

2.4.4 Local Council And Local Politicians Briefings

Gippsland Water also presented information sessions to a range of local stakeholders, including Baw Baw Shire Council, Latrobe City Council, Wellington Shire Council and local politicians. While the presentations were for information purposes, they presented an opportunity for dialogue and allowed councilors to gain a better understanding of Gippsland Water's activities. Of most interest was the capital budget for the third regulatory period, and whether the budget included a range of small town sewerage schemes. Gippsland Water representatives were able explain to councilors why the costs of several small town sewerage schemes had been excluded from the proposed capital budget.

The Gippsland Water Board has also held meetings with Councilors and Officers from Baw Shire Council, Latrobe City Council and Wellington Shire Council during the consultation period. At these meetings, the concept of shared funding of future small town schemes was discussed.

2.5 HOW CUSTOMER CONSULTATION IS REFLECTED IN PROPOSED SERVICES AND TARIFFS

Despite total attendances of 217 at community presentations, and strong interest in the Share Your View website, the take-up rate in relation to the Share Your View surveys was low. The proposed tariffs, GSL and billing options issues also failed to generate any significant comment during the face to face community consultation sessions. There was also little, if any, feedback on issues such as service standards and proposed operational and capital expenditure during the third regulatory period during the consultation process.

Proposed Tariffs – outcome

The Proposed Tariff survey results are inconclusive, with a close to 50/50 split from the small number of respondents. During the consultation process, the Proposed Tariffs Fact Sheet outlined that option two was the preferred Gippsland Water outcome because the higher tariffs generated at the end of the period may limit any price rises in the next pricing period.

- Gippsland Water has adopted option two (annual average increase +CPI) in this final Water Plan 3 proposal. Gippsland Water will continue to monitor this position in the lead up to the ESC's Final Decision in June 2013.

GSLs Survey – outcome

Of the four potential GSLs specifically outlined in the survey, two generated responses of more than 50% from the small number of respondents:

- 'water supply interrupted by an unplanned event for more than 5 hours' GSL; and
- 'sewerage spill inside my house is not contained within one hour' GSL.

Again, Gippsland Water must determine how to respond on the GSL issue, given the limited responses from the consultation process.

Gippsland Water's preferred approach is to measure, monitor and report against a few service levels of high impact to collect the data to develop meaningful metrics with a view to introducing an appropriate GSL regime during the third regulatory period. Gippsland Water will review the concept of introducing a GSL scheme on an annual basis.

While limited in terms of respondents, the survey results have identified two 'preferred' GSLs which could be used to fulfil the Gippsland Water's requirements in terms of measuring service levels of high impact.

- This final Water Plan 3 proposal excludes the introduction of GSLs. Gippsland Water proposes to measure, monitor and report against two potential GSLs namely 'water supply interrupted by an unplanned event for more than 5 hours'; and 'sewerage spill inside my house is not contained within one hour'. Gippsland Water will review the concept of introducing a GSL scheme on an annual basis during the third regulatory period.

Billing Options Survey – outcome

The Billings Options survey was not a Water Plan specific issue, rather an opportunity to seek input from customers on an issue that has been considered internally on occasions. The survey results were again inconclusive with less than 50% of respondents indicating they favour either more frequent billing or electronic billing.

- This final Water Plan 3 proposal excludes the introduction of changes to the current four-monthly billing cycle (and the additional costs associated with this increase in service). Gippsland Water will monitor support for changes in the future.

Service Standards – outcome

As noted above, there was little if any feedback on service standards proposed by Gippsland Water for the third regulatory period during the consultation process. Only service standard No. 27 (recycled water) did not have a target when the draft Water Plan 3 proposal was released. Gippsland Water has since determined a target for this service standard.

- This final Water Plan 3 proposal includes service standards outlined during the consultation process without modification, except for the inclusion of KPI No. 27 (recycled water), which has now been determined by Gippsland Water.

Operational and capital expenditure – outcome

As noted above, there was little if any feedback on operational or capital expenditure proposed by Gippsland Water for the third regulatory period during the consultation process.

- This final Water Plan 3 proposal notes that no significant concerns were raised during the consultation process with respect to planned operational or capital expenditure.

SECTION 3

Gippsland Water proposes to move forward with the service standards outlined in the draft Water Plan 3 proposal without amendment. These service standards reflect practical continuous improvement from the service standards established for the second regulatory period.

SERVICE OUTCOMES

3.1 GOVERNMENT AND REGULATORY OBLIGATIONS

Gippsland Water is required to meet a range of obligations set out by stakeholders and regulators.

As the key stakeholder, the Victorian Government outlines the obligations that it requires the corporation to meet in a Statement of Obligations issued by the Minister for Water. As Gippsland Water's final Water Plan 3 proposal was finalised, a new draft set of obligations has been proposed by the Minister for Water. A number of the key obligations set out in the new draft have been outlined in the table below.

In addition, a range of regulators have powers under legislation to impose obligations on the corporation. These regulators include the ESC, DoH and the EPA. The range of obligations imposed by these regulators is far-reaching. As such, the regulators provide guidance to all water corporations on the issues of concern to the regulator in the lead up to finalising Water Plans for the next period. Advice on obligations for the period to June 2018 has been received from DoH, EPA and ESC. These obligations have also been noted in the table below.

Rather than an exhaustive list, these DoH and EPA obligations are the key requirements outlined in the regulators' guidance papers to water corporations. To illustrate this point, Gippsland Water holds an EPA Victoria Corporate Licence. While 10 EPA obligations are outlined in the table below, the EPA Corporate Licence itself outlines a significant range of sustainability commitments and a total of 36 environmental performance conditions which Gippsland Water must comply with in the operation of the corporation's wastewater and waste management facilities.

Similarly, the Safe Drinking Water Framework administered by DoH contains significant requirements including the development of risk management plans for each drinking water supply, independent auditing of these risk management plans, compliance to water quality standards and disclosure of water quality results to the public. In addition, DoH requires audits to be undertaken in order to verify risk management plans are being implemented and are managing risks.

In both instances these broad ranging requirements are part of the day to day operation of the corporation's water, wastewater and waste treatment functions and are not outlined in the table.

In developing this final Water Plan 3 proposal, Gippsland Water has taken into account the guidance provided by DoH and the EPA. Appendices 2, 3 and 4 outline the corporation's response to the issues raised, detailing:

- targets imposed on, or set by the corporation;
- whether the targets are new or changed since the last period;
- outcomes that will be achieved during the third regulatory period;
- expenditure or initiatives aimed at meeting the obligation; and
- any consultation undertaken.

Table 3.1: Key Obligations Identified By Stakeholders / Regulators For The Third Regulatory Period

Gippsland Water Table of Obligations		Legislation	Water Industry Act 1994		Safe Drinking Water Act 2003	Environment Protection Act 1970
		Formal Notification	Statement of Obligations (draft – August 2011)	Customer Charter / Trade Waste Charter	Safe Drinking Water Regulations	Corporate Licence, regulations and guidance
		Stakeholder / Regulator	Minister For Water	Essential Services Commission	Department of Health	Environment Protection Authority
Classification	**Obligation**					
Service	Service Provision (2)			✓		
	Water Plans (2)		✓			
	Governance (2)		✓			
	Risk Management, including incidents and emergencies and dam safety (1)		✓		✓	
	Long term water supply / demand management (1)		✓			
	Water Shortage Plans (1)		✓			
	Managing Assets (1)		✓			
	Provision of sewerage services (1)		✓			
	Service Standards (2)			✓		
Quality	Water Quality Standards (1)				✓	
	Minimum Operator Competency Requirements (1)				✓	
	Fluoridation Requirements (1)				✓	
Customers	Customer and Community Engagement (1)		✓			✓
	Hardship Requirements (2)			✓		
Environment	Trade Waste (1)		✓			
	Sewerage disposal and treatment (1)					✓
	Sludge and biosolids management (1)					✓
	Management of the sewerage system (1)					✓
	Water efficiency (1)					✓
	Catchment, waterway and groundwater management (1)					✓
	Wastewater reuse (1)					✓
	Opportunities to manage greenhouse gas emissions (2)					✓
	Environmental Management system (2)					✓
Other	Reporting (2)		✓		✓	✓

Note 1: Further detail in relation to this obligation is provided in Appendices 2, 3, and 4.
Note 2: No further detail is provided.

3.2 SERVICE STANDARDS

Gippsland Water has developed proposals for 29 service standards for the third regulatory period commencing July 2013. For ease of understanding during the community consultation process, these service standards were separated into several categories. These categories are:

- Water – unplanned events
- Water – planned events
- Wastewater – unplanned events
- Quality
- Service
- Miscellaneous.

The ESC prefers to categorise these service standards as either 'core' or 'additional' standards. This information is provided within the tables below for each service standard. Gippsland Water has outlined all the service standards in each category and provided the following information:

- a description of the service standard;
- how the service standard is measured;
- Gippsland Water's -
  - current targets;
  - performance over the past five years;
  - Water Plan 3 proposal;
- the rationale for adopting the proposed Water Plan 3 target; and
- the ESC's 'basis of calculation'.

3.3 CUSTOMER FEEDBACK ON SERVICE STANDARDS

Gippsland Water sought to engage with its customers and the wider community over a two month period during June and July 2012. While the details of the consultation process are outlined in chapter 2 of the plan, a number of specific observations can be made about consultation on proposed service standards:

- Gippsland Water produced a fact sheet specifically detailing a selection of service standards and the changes proposed;
- Gippsland Water made available a full listing of the 29 service standards for customers to download from a website, or request via phone or email; and
- during community presentations, Gippsland Water specifically addressed service standard proposals and sought feedback.

The feedback received from customers included:

- customers did not know service standards existed;
- Gippsland Water or the ESC should promote the results achieved;
  - The ESC's Annual Water Performance Report tends to focus on a wide range of data that does not align itself with the service standards in place for Gippsland Water;
- customers were surprised to learn the service standard regime was so complicated; and
- customers were overwhelmed by the sheer volume of information available.

Despite the significant effort to promote discussion on Gippsland Water's proposed service standards for the third regulatory period, not a single customer or community response to the proposals was received during the two month consultation period. This perhaps says more about the perceived complexity of the service standard regime itself, with customers unwilling to delve into the significant detail that is service standards.

Given this lack of customer or community feedback, Gippsland Water proposes to move forward with the service standards outlined in the draft Water Plan 3 proposals without amendment. These service standards reflect practical continuous improvement from the service standards established for the second regulatory period.

3.4 SERVICE STANDARDS PROPOSED

Table 3.2: Water Plan 3 Service Standard proposals

No.	ESC Type	Description	Measure	Current Target	Performance Last 5 yrs	WP3 Proposal	Gippsland Water Comment	Basis of Calculation
Water - Unplanned								
1	Core	Unplanned water supply interruptions	Per 100km of water main	45	19.5	19.5	Proposed target reflects 5 yr average	Water Supply Interruptions (No.) Unplanned / Length of Water Main (km) *100
2	Core	Average time taken to attend bursts and leaks (priority one)	Minutes	40	31.0	35	Current average performance not achievable given level of capital expenditure on mains renewals. Proposal lower than current target	Total minutes to respond to bursts and leaks (minutes) Priority 1 / Bursts and leaks (No.) Priority 1
3	Core	Average time taken to attend bursts and leaks (priority two)	Minutes	150	138.6	138	Proposed target reflects 5 yr average	Total minutes to respond to bursts and leaks (minutes) Priority 2 / Bursts and leaks (No.) Priority 2
4	Core	Average time taken to attend bursts and leaks (priority three)	Minutes	2300	1497	2000	Proposed target represents GW performance over last 2 years and is in line with improved business practices balancing attention to priority 1 and priority 2 (the higher customer impact)	Total minutes to respond to bursts and leaks (minutes) Priority 3 / Bursts and leaks (No.) Priority 3
5	Core	Unplanned water supply interruptions restored within 5 hours (percent)	Percent	97.8	98.6	98	Proposed target reflects 5 yr average	(Water Supply Interruptions restored within 5 hours (No.) Unplanned / Water Supply Interruptions (No.) Unplanned) *100
9	Core	Average frequency of unplanned water supply interruptions	Number	0.10	0.12	0.12	Proposed target reflects 5 yr average	Water supply customer-interruptions (No.) Unplanned / (Water customers (No.) Domestic + Water customers (No.) Non-domestic)

No.	ESC Type	Description	Measure	Current Target	Performance Last 5 yrs	WP3 Proposal	Gippsland Water Comment	Basis of Calculation
Water - Unplanned - continued								
11	Core	Average duration of unplanned water supply interruptions	Minutes	110	83.8	90	Current average performance not achievable given level of capital expenditure on mains renewals. Proposal lower than current target	Customer-minutes to restore water supply (minutes) Unplanned / Water supply customer interruptions (No.) Unplanned
7	Core	Average unplanned customer minutes off water supply	Minutes	15.4	10.2	10.8	Reflects calculation: KPI #9 multiplied by KPI #11	Customer minutes to restore water supply (minutes) Unplanned / (Water customers (No.) Domestic + Water customers (No.) Non-domestic)
13	Core	Number of customers experiencing more than 5 unplanned water supply interruptions in the year	Number	0	2	0	No change to current target	Customers receiving 5 unplanned interruptions in the year (No.) / (Water customers (No.) Domestic + Water customers (No.) Non-domestic)
Water - Planned								
6	Core	Planned water supply interruptions restored within 5 hours (percent)	Percent	87	98	90	Current approach is short-term focussed and does not deliver the customer the best overall outcome. Proposed target focuses on work efficiencies without increasing cost of works and delivering a better overall outcome to customers	(Water Supply Interruptions restored within 5 hours (No.) Planned / Water Supply Interruptions (No.) Planned) *100
10	Core	Average frequency of planned water supply interruptions	Number	0.20	0.08	0.08	Proposed target reflects 5 yr average	Water supply customer-interruptions (No.) Planned / (Water customers (No.) Domestic + Water customers (No.) Non-domestic)
12	Core	Average duration of planned water supply interruptions	Minutes	130.8	139.3	160 - 140	Gippsland Water to work with developers and contractors to better plan and execute supply interruptions. Improvements from recent actual performance (166 - ytd 2011/12) reflected in reduction in proposal during period.	Customer-minutes to restore water supply (minutes) Planned / Water supply customer interruptions (No.) Planned
8	Core	Average planned customer minutes off water supply	Minutes	26.2	11.6	12.8 - 11.2	Reflects calculation: KPI #10 multiplied by KPI #12	Customer-minutes to restore water supply (minutes) Planned / (Water customers (No.) Domestic + Water Customers (No.) Non-domestic)

Notes:

1. *Water Plan 3 proposal for Service Standard no. 12 reduces over the period as follows:*
   a. *2013/14 – 160;* c. *2015/16 – 150;* e. *2017/18 – 140.*
   b. *2014/15 – 155;* d. *2016/17 – 145;*
2. *Water Plan 3 proposal for Service Standard no. 8 reduces over the period as follows:*
   a. *2013/14 – 12.8;* c. *2015/16 – 12.0;* e. *2017/18 – 11.2.*
   b. *2014/15 – 12.4;* d. *2016/17 – 11.6;*

No.	ESC Type	Description	Measure	Current Target	Performance Last 5 yrs	WP3 Proposal	Gippsland Water Comment	Basis of Calculation
Waste - Unplanned								
15	Core	Sewerage blockages	Per 100km of sewer main	25	18	18	Proposed target reflects 5 yr average	Sewer blockages (No.) Main + HCB / Length of sewerage main (km) *100
16	Core	Average time to attend sewerage spills and blockages	Minutes	35	30.7	40	Proposed target based on revised definition. Allows for Coongulla, Glenmaggie and Loch Sport works in future years	Total minutes to respond to reported blockage/spill / (Sewer blockages (No.) Main + Sewer blockages (No.) HCB + Sewer spills not caused by blockages)
17	Core	Average time to rectify a sewer blockage	Minutes	130	94.5	95	Proposed target reflects 5 yr average	Total minutes taken to repair blockage/spill / (Sewer blockages (No.) Main + HCB)
18	Core	Spills contained within 5 hours	Percent	98	99	98	No change to current target. Need to allow for Coongulla, Glenmaggie and Loch Sport works in future years	Sewer spills from reticulation and branch sewers contained within 5 hrs (No.) Priority 2 / (Sewer spills from reticulation and branch sewers (No.) Priority 2) *100
19	Core	Customers receiving more than 3 sewer blockages in the year	Number	0	0	0	No change to current target	Customers receiving 3 sewer blockages in the year (No.) / (Sewerage Customers (No.) Domestic + Sewerage Customers (No.) Non-domestic)
Quality								
22	Addit.	Population receiving water meeting E.Coli standards	Percent	100	100	100	No change to current target	(Number of SDWA compliant results / Number of parameters monitored for SDWA Compliance) / Population
23	Addit.	Population receiving water meeting disinfection by-products standards	Percent	100	99.9	100	No change to current target	(Number of SDWA compliant results / Number of parameters monitored for SDWA Compliance) / Population
24	Addit.	EPA discharge quality licence compliance	Percent	100	98.5	100	No change to current target	Number of EPA License Compliant Results / Number of parameters monitored for EPA License Compliance
25	Addit.	Population receiving water meeting turbidity standards	Percent	100	100	100	No change to current target	(Number of SDWA compliant results / Number of parameters monitored for SDWA Compliance) / Population
Service								
No.	ESC Type	Description	Measure	Current Target	Performance Last 5 yrs	WP3 Proposal	Gippsland Water Comment	Basis of Calculation
20	Core	Complaints to EWOV	Per 1000 Customers	0.7	0.08	0.08	Proposed target reflects 5 yr average	Water Level 1 Complaints
21	Core	Telephone calls answered within 30 seconds	Percent	80	84.6	84	Proposed target reflects 5 yr average	(Calls Connected to Operator within 30 seconds Account Line + Calls Connected to Operator within 30 seconds Fault Line) / (Calls to Account Line + Calls to Fault Line)

No.	ESC Type	Description	Measure	Current Target	Performance Last 5 yrs	WP3 Proposal	Gippsland Water Comment	Basis of Calculation
Miscellaneous								
14	Core	Unaccounted for water	Percent	14.1	9.8	12	Proposed target represents GW expectation for additional water losses due to aging water infrastructure	Volume of (TREATED ONLY) water received (Ml) - (Metered volume of water delivered to customers (Ml) Domestic + Metered volume of water delivered to customers (Ml) Non-domestic) / Volume of water received (Ml)
26	Addit.	Total CO2 equivalent emissions	Tonnes - 000s	73.86	70.99	70	Proposed target reflects 3 yr average	Total CO2 eqivalent Greenhouse Gas Emisssions, including transport, water supply and sewerage supply generated activities
27	Addit.	Recycled water target	Percent	20	5.10	10.3	Proposed target based on expected volumes during Water Plan 3 period.	(Volume of recycled water used / Volume of effluent) * 100
28	Addit.	Biosolids re-use	Percent	100	100	100	No change to current target	(Total Dry Weight Tonnes of Bio-solids Re-used / Total Dry Weight of Bio-solids Produced) * 100
29	Addit.	CTWSS connections	Number	various	n/a	various	Per CTWSS expectations	Number of Sewer Backlog Properties identified for connection to town reticulation sewer system, within the sewer district

3.5 GUARANTEED SERVICE LEVELS (GSL)

Current GSLs in place

Gippsland Water currently has one GSL in place. This is the hardship GSL that the ESC required Gippsland Water to put in place, along with eight other water corporations, from January 2011. From July 2012, the ESC has required the remaining urban water corporations across Victoria to put the same hardship GSL in place.

To comply with the Hardship GSL, Gippsland Water must not engage in:

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.

The ESC developed a five step check list for 'minimum reasonable endeavours'. The ESC checklist was very similar to Gippsland Water's existing arrangements. The minor changes required were put in place prior to January 2011 to ensure hardship protections were provided to customers.

Proposal for additional GSLs

A range of GSLs are in place across Victorian water corporations. Unlike the hardship GSL, the other GSLs vary across water corporations, in terms of the type and number of GSLs that exist as well as the level of rebate applied, should a GSL event occur. The ESC indicated in guidance papers that a core set of GSLs applicable to all water corporations was desirable, but would not be mandated. The ESC encouraged water corporations to propose new GSLs for the third regulatory period.

Gippsland Water sought the views of its customers during planning for the second regulatory period. This customer feedback was outlined in Gippsland Water's Final Water Plan 2 document. After an initial positive response to GSLs from three customer focus groups, Gippsland Water conducted a large scale customer survey, targeting all customers, to better understand the support within the customer base for the introduction of GSLs during August 2007. At that time the findings of the customer survey into the introduction of GSLs were as follows:

- 45% indicated that GSLs should be introduced;
- 28% indicated that GSLs should not be introduced; and
- 27% indicated that they were undecided.

In responding to a question on the advantages of GSLs:

- 60% indicated that GSLs "ensured that work gets done on time"; while
- 59% indicated that GSLs "made sure Gippsland Water does what is stated".

In responding to a question on the disadvantages of GSLs:

- 60% indicated that GSLs meant "customers would be charged more"; while
- 49% indicated that GSLs will "hide problems and delays".

In responding to a question in relation to paying an additional amount to fund rebates for a GSL scheme:

- 85% indicated that they would not be willing to pay more;
- 8% indicated that they would be willing to pay more; and
- 7% indicated that they were undecided.

The findings of the August 2007 customer survey contrasted significantly with the strong focus group support for the introduction of GSLs. Based on the results of the more significant sample size and the lack of any conclusive positive sentiment, Gippsland Water determined that it will not seek to introduce GSLs during the second regulatory period.

3.6 CUSTOMER FEEDBACK ON GSLS IN 2012

To determine customer sentiment toward GSLs almost five years later, Gippsland Water elected to seek direct input from customers. This input was sought via customer access to the corporation's Share Your View website, which included a GSL survey and information sheet outlining several GSLs that Gippsland Water was seeking feedback on. In addition, a list of all GSLs in place across Victoria was provided. Customers were encouraged to advise Gippsland Water if any of these additional GSLs were of interest to them. The survey remained open for a two month period during June and July 2012. Access to the website was widely publicised, particularly using television media and during community consultation sessions. Gippsland Water also discussed the concept of GSLs in public forums, where no significant desire for the introduction of GSLs was evident.

Despite the significant effort that was made to engage customers on the GSL issue only 40 visitors (10% of the 379 visitors to website) completed the GSLs survey. The survey asked visitors to select which GSLs they would prefer if a GSL scheme was available. Visitors were able to choose more than one GSL from a list of four:

- 15 (37%) chose the 'more than 5 unplanned water interruptions in a year' GSL;
- 22 (55%) chose the 'sewerage spill inside my house is not contained within one hour' GSL;
- 7 (17%) chose the 'more than 3 unplanned sewerage interruptions in a year' GSL; and
- 21 (52%) chose the 'water supply interrupted by an unplanned event for more than 5 hours' GSL.

Despite visitors being encouraged to review the entire list of Victorian water corporation GSLs provided and nominate any others they were interested in, no nominations were made. A number of customers indicated that the survey should have allowed them to have the option to say 'no' to GSLs.

Gippsland Water's CCC reviewed the draft Water Plan 3 proposal survey questions in late June 2012. The CCC's response to the concept of GSLs was mixed. Some committee members saw merit in being proactive and demonstrating goodwill. Other members were concerned that customers should not be rewarded for something that goes wrong. No specific GSL was preferred.

3.7 GIPPSLAND WATER'S POSITION ON GSLS FOR THE THIRD REGULATORY PERIOD

Of the four potential GSLs specifically outlined in the survey, two generated responses of more than 50% from the small number of respondents. These were:

- 'water supply interrupted by an unplanned event for more than 5 hours' GSL; and
- 'sewerage spill inside my house is not contained within one hour' GSL.

Subject to community feedback, Gippsland Water considered its position on the issue of GSLs during the period from November 2011 to February 2012. The agreed position was that:

Gippsland Water will measure, monitor and report against a few service levels of high impact to collect the data to develop meaningful metrics with a view to introducing an appropriate GSL regime during the third regulatory period. Gippsland Water will review the concept of introducing a GSL scheme on an annual basis.

While limited in terms of respondents, the survey results have identified two 'preferred' GSLs which could be used in terms of measuring service levels of high impact.

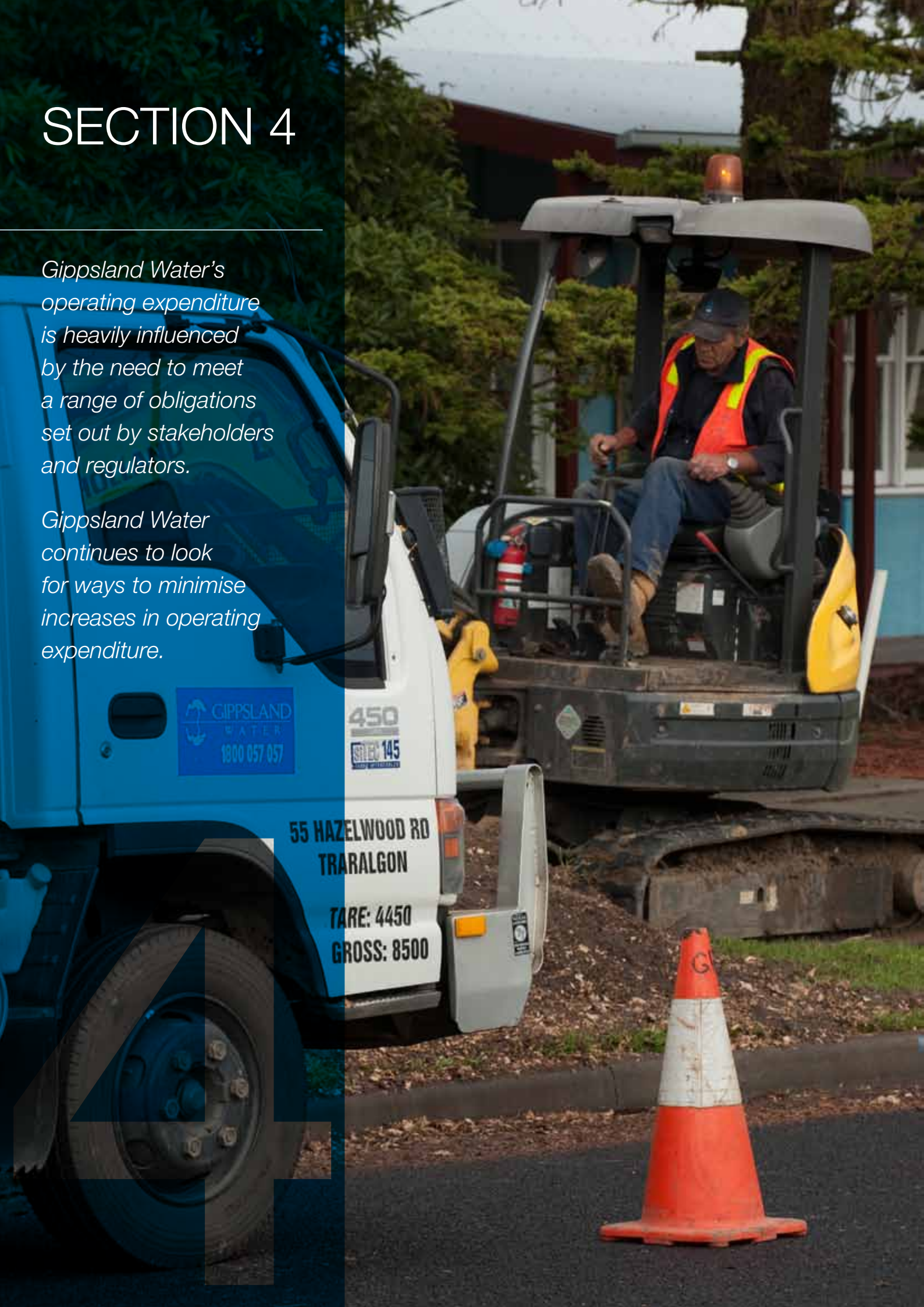
As such, Gippsland Water proposes that for the third regulatory period it will:

- not introduce any additional GSLs;
- measure, monitor and report against two potential GSLs namely 'water supply interrupted by an unplanned event for more than 5 hours'; and 'sewerage spill inside my house is not contained within one hour'; and
- review the concept of introducing a GSL scheme on an annual basis during the third regulatory period.

SECTION 4

Gippsland Water's operating expenditure is heavily influenced by the need to meet a range of obligations set out by stakeholders and regulators.

Gippsland Water continues to look for ways to minimise increases in operating expenditure.



OPERATING EXPENDITURE

4.1 OPERATING EXPENDITURE

Gippsland Water's forecasts for operating expenditure for each year of the third regulatory period are detailed below. Key drivers of expenditure are outlined, and detailed information is provided to show that the expected levels of expenditure are prudent and efficient.

Gippsland Water's operating expenditure is heavily influenced by the need to meet a range of obligations set out by stakeholders and regulators. As the key stakeholder, the Victorian Government outlines the obligations that it requires the corporation to meet in a Statement of Obligations issued by the Minister for Water. As Gippsland Water's final Water Plan 3 proposal was completed, a new draft set of obligations had been proposed by the Minister for Water. A number of the key obligations set out in the new draft have been outlined in chapter 3.

In addition, a range of regulators have powers under legislation to impose obligations on the corporation. These regulators include the ESC, the DoH and the EPA. The range of obligations imposed by these regulators is far-reaching. As such, these regulators provide guidance to all water corporations on issues of concern to the regulator, in the lead up to the finalisation of Water Plans for the next regulatory period. This advice on obligations for the period to June 2018 has been considered in the development of Gippsland Water's operating forecasts. Full details of these obligations are also noted in chapter 3. After reviewing the requirements outlined, Gippsland Water has not determined the need for any significant increases in operating expenditure during the third regulatory period.

Gippsland Water continues to look for ways to minimise increases in operating expenditure. Reductions in operating expenditure have been made in a number of areas. A significant increase in the environmental contribution, from 2013/14 onward, has also been factored into this Plan. Forecast energy costs also include current estimates of the expected impact of the Federal Government's introduction of a carbon price from July 2012. To date, Gippsland Water's major suppliers of chemicals have been unable to determine with any certainty, the impact that the introduction of a carbon price will have on future chemical pricing. As such, this potential impost together with indirect cost increases to a range of goods and services Gippsland Water procures or utilises have not been included in this Plan.

4.2 CHANGES IN PROPOSED EXPENDITURE FROM DRAFT WATER PLAN PROPOSAL

During the recent consultation process on Gippsland Water's draft Water Plan 3 proposal, Gippsland Water did not identify any major changes that were required to be made in response to feedback received from customers during the consultation process.

Since the release of the draft Water Plan 3 proposal, Gippsland Water has identified a number of changes to operating expenditure. This has occurred due to improvements in cost estimates for some activities becoming available since the draft was released. These changes have included:

- reducing energy budget estimates given better knowledge on expected carbon price impacts on future energy prices;
- reducing estimates in relation to future irrigation costs; and
- increasing estimates for Southern Rural Water's costs for both storage management at Blue Rock Reservoir and recreational facilities fees for Blue Rock Reservoir, Cowwarr Weir and Lake Glenmaggie.

In total, proposed operational expenditure for the third regulatory has reduced by approximately $3M from the draft Water Plan 3 proposal. In May 2012, Gippsland Water had indicated that $364.92M would be required for the third regulatory period. This has reduced to $361.83M as outlined in table 4.1 below.

4.3 OVERVIEW OF OPERATING EXPENDITURE

Detailed in Table 4.1 is an overview of operating expenditure required to allow Gippsland Water to meet its obligations and deliver services during the regulatory period. Gippsland Water's operating expenditure forecast for the five year third regulatory period totals $361.83M.

Table 4.1: Overview Of Operating Expenditure ($ Jan 13 – millions)

Function	13/14	14/15	15/16	16/17	17/18	Total
Water	28.01	28.16	28.40	28.54	28.64	141.75
Wastewater	38.64	38.57	39.29	39.28	39.74	195.52
Sub total	**66.65**	**66.73**	**67.69**	**67.82**	**68.37**	**337.27**
Regulatory Licence Fees	0.45	0.43	0.43	0.43	0.43	2.18
Environmental Contribution	4.70	4.59	4.47	4.36	4.26	22.38
Total Cost	**71.80**	**71.75**	**72.60**	**72.62**	**73.06**	**361.83**

Further detail in relation to this operating expenditure is provided in Table 4.2 and Table 4.3, where the allocation between water and wastewater services is detailed, along with the category of spend within each area.

Table 4.2: Total Operating Expenditure - Water ($ Jan 13 – millions)

Category	13/14	14/15	15/16	16/17	17/18	Total
Operations Maintenance	14.01	14.17	14.36	14.45	14.55	71.54
Treatment	4.07	4.08	4.06	4.08	4.06	20.34
Customer Service and Billing	1.17	1.20	1.21	1.23	1.24	6.06
Licence Fees	0.34	0.35	0.35	0.36	0.35	1.76
Corporate	8.42	8.36	8.42	8.42	8.44	42.05
Total	**28.01**	**28.16**	**28.40**	**28.54**	**28.64**	**141.75**

Table 4.3: Total Operating Expenditure - Wastewater ($ Jan 13 – millions)

Category	13/14	14/15	15/16	16/17	17/18	Total
Operations Maintenance	9.03	9.23	9.44	9.64	9.78	47.11
Treatment	16.05	15.90	16.32	16.01	16.24	80.54
Customer Service and Billing	1.60	1.63	1.64	1.67	1.69	8.24
Licence Fees	0.47	0.48	0.48	0.49	0.48	2.39
Corporate	11.49	11.33	11.41	11.46	11.54	57.23
Total	**38.64**	**38.57**	**39.29**	**39.28**	**39.74**	**195.52**

4.4 SIGNIFICANT ITEMS OF OPERATING EXPENDITURE

Gippsland Water's operating expenditure covers a wide range of expenditure categories. Details in relation to the top ten items of operating expenditure by category, excluding labour, are outlined below. Details of expenditure expected to be incurred for the 2012/13 year are provided for comparative purposes.

Table 4.4: Top Ten Categories Of Operating Expenditure ($ Jan 13 – millions)

Category	12/13	13/14	14/15	15/16	16/17	17/18
Energy	4.12	4.09	4.09	4.11	4.11	4.11
Treatment Chemicals and Supplies	3.16	3.54	3.54	3.55	3.55	3.55
Major Maintenance	2.94	2.98	2.87	2.85	2.88	2.99
Sludge/Biosolids/Screenings/Grit Treatment and Disposal	2.84	2.87	2.77	3.11	2.77	2.87
General Maintenance Agreements and Contractor Payments	3.05	1.77	1.79	1.90	1.82	1.82
Mechanical And Electrical Planned Corrective Maintenance	1.63	1.61	1.62	1.62	1.63	1.63
Sludge/Biosolids/Screenings/ Grit Removal and Transport	1.09	1.23	1.23	1.23	1.23	1.23
Mechanical And Electrical Planned Preventative Maintenance	1.18	1.19	1.19	1.20	1.20	1.20
Licence Fees	0.97	0.97	0.97	0.97	0.98	0.97
Contracted Routine Sampling	0.93	0.92	0.92	0.92	0.92	0.92
Total	**21.91**	**21.17**	**20.99**	**21.46**	**21.09**	**21.28**

4.5 DETAILS OF OPERATING EXPENDITURE

Expenditure in these categories is spread across a range of Gippsland Water activities. The following tables outline in more detail the activities undertaken that generate the expenditure in each category above, along with a short narrative.

Energy costs are expected to rise from July 2012 as a result of the Federal Government's introduction of a carbon price. For the third regulatory period, Gippsland Water's energy budget includes several assumptions:

- estimates for 2012/13 prices are based on current contract rates;
- estimates for 2013/14 prices are based on current 'futures' for Fin 2014;
- estimates for 2014/15 prices and beyond are based on current 'futures' for Fin 2015;
- 'Futures' data currently expects a small 'real decrease' in costs, rather than any real increases over the period;
- the carbon price increases from $23 per tonne in 2012/13, by 2.5% real for both 2013/14 and 2014/15; and
- no carbon price movement (up or down) from 2015/16 onward. Rate left at 2014/15 levels.

Table 4.5: Energy ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Major Sites	2.97	2.93	2.93	2.93	2.93	2.93
Minor Sites	1.15	1.16	1.16	1.18	1.18	1.18
Total	**4.12**	**4.09**	**4.09**	**4.11**	**4.11**	**4.11**

The actual carbon price impact can be isolated in Gippsland Water's energy modelling, and is detailed by year in the table below.

Table 4.6: Carbon Price Included In Energy ($ Jan 13 – millions)

	12/13	13/14	14/15	15/16	16/17	17/18
Total	**0.55**	**0.56**	**0.58**	**0.58**	**0.58**	**0.58**

Gippsland Water's spend profile for chemicals remains steady over the third regulatory period. The increase from 2012/13 to 2013/14 is based around an increase in expected running costs at the GWF. As noted above, Gippsland Water's major suppliers have not been able to provide advice in relation to the likely impact of the Federal Government's carbon price on future chemical costs.

Table 4.7: Treatment Chemicals And Supplies ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Field Operations	0.02	0.03	0.03	0.04	0.04	0.04
Bulk Systems	0.17	0.02	0.02	0.02	0.02	0.02
Water Treatment	1.10	1.10	1.10	1.10	1.10	1.10
Wastewater Treatment	1.87	2.39	2.39	2.39	2.39	2.39
Total	**3.16**	**3.54**	**3.54**	**3.55**	**3.55**	**3.55**

Gippsland Water's spend profile for major maintenance remains steady over the third regulatory period. Gippsland Water undertakes major maintenance works on a range of assets including water storages, transfer mains, reticulation assets, treatment plants and desludging lagoons.

Table 4.8: Major Maintenance ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Wastewater Irrigation	0.15	0.14	0.13	0.14	0.14	0.14
Field Operations	0.50	0.43	0.42	0.38	0.43	0.43
Water Treatment	0.71	0.71	0.71	0.71	0.71	0.71
Bulk Systems	0.74	0.75	0.76	0.78	0.76	0.76
Wastewater Treatment	0.84	0.96	0.85	0.85	0.85	0.95
Total	**2.94**	**2.98**	**2.87**	**2.85**	**2.88**	**2.99**

Gippsland Water will transport over 200,000 tonnes of biosolids, sludges, screenings and grit to the corporation's Soil and Organic Recycling Facility (SORF) at Dutson Downs during the third regulatory period. (The SORF is an 'unregulated' activity that treats these wastes as well as considerable volumes of industrial waste from around Victoria). Approximately 175,000 tonnes will be transported from the GWF alone.

From a Water Plan perspective, these costs are significant for two reasons:

- they represent a major operational expenditure in their own right; and
- they are a charge across the regulatory boundary. That is, Gippsland Water's unregulated SORF business charges the regulated wastewater business for services provided; on the basis that if Gippsland Water did not own the SORF, it would be required to enter into a commercial arrangement with another party for the disposal of this material.

As such, Gippsland Water has determined an 'arms-length' transfer rate for the treatment of biosolids, sludges, screenings and grit at the SORF. This rate is charged to all internal customers based on the volumes received by the SORF.

Table 4.9: Sludge/Biosolids/Screenings/Grit - Treatment And Disposal ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
GWF	2.42	2.42	2.42	2.42	2.42	2.42
Warragul Wastewater Treatment Plant	0.17	0.17	0.17	0.17	0.17	0.17
Other	0.24	0.28	0.17	0.52	0.17	0.28
Total	**2.84**	**2.87**	**2.77**	**3.11**	**2.77**	**2.87**

As noted above, Gippsland Water will transport over 200,000 tonnes of biosolids, sludges, screenings and grit to the corporation's SORF at Dutson Downs during the third regulatory period. Over the third regulatory period these removal and transport costs remain steady.

Table 4.10: Sludge/Biosolids/Screenings/Grit - Removal And Transport ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Bulk Systems	0.02	0.02	0.02	0.02	0.02	0.02
Water Treatment	0.26	0.26	0.26	0.26	0.26	0.26
Wastewater Treatment (Exc GWF)	0.25	0.25	0.25	0.25	0.25	0.25
GWF	0.57	0.71	0.71	0.71	0.71	0.71
Total	**1.09**	**1.23**	**1.23**	**1.23**	**1.23**	**1.23**

Gippsland Water's spend profile for general operations and maintenance agreements remains steady over the third regulatory period. The only significant movement is a decrease in contract payments from 2012/13. This relates to the completion, during 2012/13, of the 'proving and optimisation' contract at the GWF.

Table 4.11: General Operations And Maintenance Agreements ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Head Office - Various	0.19	0.18	0.19	0.19	0.19	0.19
Metering	0.11	0.11	0.11	0.11	0.11	0.11
Billing	0.13	0.13	0.13	0.13	0.13	0.13
Bulk Systems	0.22	0.19	0.18	0.16	0.17	0.17
Environmental	0.25	0.29	0.35	0.35	0.35	0.35
ICT and SCADA	0.71	0.71	0.69	0.69	0.69	0.69
GWF	1.29	0.00	0.00	0.00	0.00	0.00
Other	0.16	0.15	0.15	0.28	0.18	0.18
Total	**3.05**	**1.77**	**1.79**	**1.90**	**1.82**	**1.82**

Note: ICT - Information, Communication and Technology; SCADA - Supervisory Control And Data Acquisition

Gippsland Water uses an external contractor for its mechanical and electrical maintenance activities across the region. This contract was tendered during 2011/12. Significant interest was shown by the maintenance industry in the tender process. A new contract was awarded for a minimum period of five years, subject to the contractor meeting agreed performance requirements. Gippsland Water's spend profile for mechanical and electrical planned corrective and planned preventative maintenance work remains steady over the third regulatory period.

Table 4.12: Mechanical And Electrical Planned Corrective Maintenance ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Field Operations	0.12	0.12	0.13	0.13	0.14	0.14
Bulk Systems	0.23	0.21	0.21	0.21	0.21	0.21
Water Treatment	0.54	0.54	0.54	0.54	0.54	0.54
Wastewater Treatment (Exc GWF)	0.37	0.37	0.37	0.37	0.37	0.37
GWF	0.34	0.34	0.34	0.34	0.34	0.34
Other	0.03	0.03	0.03	0.03	0.03	0.03
Total	**1.63**	**1.61**	**1.62**	**1.62**	**1.63**	**1.63**

Table 4.13: Mechanical And Electrical Planned Preventative Maintenance ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Bulk Systems	0.15	0.15	0.15	0.15	0.15	0.15
Water Treatment	0.26	0.26	0.26	0.26	0.26	0.26
Field Operations	0.31	0.32	0.32	0.33	0.32	0.32
Wastewater Treatment	0.41	0.42	0.42	0.42	0.42	0.42
Other	0.05	0.05	0.05	0.05	0.05	0.05
Total	**1.18**	**1.19**	**1.19**	**1.20**	**1.20**	**1.20**

Gippsland Water does not expect licence fee costs to change over the third regulatory period as noted below.

Table 4.14: Licence Fees ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
ICT	0.71	0.69	0.71	0.71	0.71	0.71
Strategic Planning	0.11	0.13	0.11	0.11	0.11	0.11
SCADA	0.06	0.07	0.07	0.07	0.07	0.07
Other	0.08	0.08	0.08	0.08	0.10	0.08
Total	**0.97**	**0.97**	**0.97**	**0.97**	**0.98**	**0.97**

Gippsland Water contracts an independent analytical services provider to conduct approximately 12,000 tests on drinking water and waste testing programs annually. Tests are required to ensure that drinking water is safe and meets drinking water standards and regulatory guidelines. The drinking water testing programs incorporate the following:

- Catchment and raw water supplies
- Bulk water transfer systems
- Water treatment plants
- Water reticulation systems.

Tests are also required to ensure that waste is compliant with standards and regulatory guidelines. The waste testing programs incorporate the following:

- Bulk wastewater transfer systems
- Wastewater treatment plants
- Trade wastes
- Environmental receiving waters
- Prescribed wastes
- Sludges.

The analytical services program includes process, verification and compliance testing for the above packages.

Table 4.15: Contracted Routine Sampling ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Bulk Systems	0.09	0.08	0.08	0.08	0.08	0.08
Wastewater Treatment	0.25	0.25	0.25	0.25	0.25	0.25
Water Treatment	0.55	0.55	0.55	0.55	0.55	0.55
Other	0.03	0.03	0.03	0.03	0.03	0.03
Total	**0.93**	**0.92**	**0.92**	**0.92**	**0.92**	**0.92**

4.6 SPECIAL INTEREST EXPENDITURE

Gippsland Water's customers are often interested to learn about the expenditures that the corporation is required to make in relation to issues that, at first, appear not to have a strong link to the provision of water and wastewater services.

4.6.1 Environmental Contribution

All water corporations in Victoria are required to pay environmental contributions to the Victorian Government, as set-out in the Water Industry Act 1994. The purpose of collecting environmental contributions from water corporations is to fund initiatives that promote the sustainable management of water or address adverse water-related environmental impacts.

The contributions are used to fund a range of environmental initiatives such as improving river health, better groundwater management, more efficient use of water, and reliable and secure water supplies.

During the third regulatory period $4.7M per annum ($ of day) has been provided by Gippsland Water for environmental contributions payments. This is a significant increase on the current $2.79M paid by the corporation.

Table 4.16: Environmental Contribution ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Annual Contribution	2.79	4.70	4.59	4.47	4.36	4.26

Gippsland Water has 'de-escalated' the annual $4.7M contribution (to a lower value in $ Jan 13 in the later years) in table 4.16. Gippsland Water will work with the ESC to ensure that appropriate values are provided for when more information is available around the payment process to be applied during the third regulatory period.

4.6.2 Direct Environmental Expenditure

Direct expenditure on environmental activities will continue to be significant during the third regulatory period. This Plan provides for a range of activities to be undertaken, including monitoring native flora and fauna, as well as maintaining fencing to protect wildlife corridors. Gippsland Water must also conduct ecological surveys and risk assessments.

In addition, Victoria's Native Vegetation Management Framework establishes the strategic direction for the protection, enhancement and revegetation of native vegetation across Victoria. Its main goal is to achieve a reversal, across the entire landscape, of the long term decline in the extent and quality of native vegetation, leading to a net gain. A number of Gippsland Water's works programs have not been able to avoid the removal of native vegetation resulting in the establishment of a series of environmental offset sites as planning permit conditions. These sites have ten year approved management regimes which include the removal of noxious and invasive weeds, fire management plans, feral animal control, revegetation of native species and the securing of the site. Forecasts for both environmental activities and environmental offsets are outlined in table 4.17 below.

Table 4.17 – Environmental Expenditure ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Environmental activities	0.25	0.29	0.35	0.35	0.35	0.35
Environmental offsets	0.20	0.24	0.24	0.24	0.24	0.24

4.6.3 Contributions to Southern Rural Water

Gippsland Water has a bulk entitlement in place to extract water from Blue Rock Reservoir. Gippsland Water pays a contribution to Southern Rural Water, along with other entitlement holders, for the management of storage facilities at the reservoir. Gippsland Water is also charged, by Southern Rural Water, for the provision of recreational facilities at its Blue Rock Reservoir, Lake Glenmaggie and Cowwarr Weir sites. Table 4.18 below outlines the contributions to Southern Rural Water included in this plan.

Table 4.18 – Contributions To Southern Rural Water ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Bulk Entitlement infrastructure	0.124	0.254	0.254	0.254	0.254	0.254
Recreational Facilities charge	0.257	0.300	0.300	0.300	0.300	0.300
Total	**0.381**	**0.554**	**0.554**	**0.554**	**0.554**	**0.554**

The infrastructure charge outlined above includes an increase from 2013/14 given Gippsland Water's expectation that the corporation will purchase an additional entitlement during the third regulatory period and will also contribute to the costs of the new drought reserve.

4.7 OVERVIEW OF LABOUR EXPENDITURE

Expenditure on labour for the third regulatory period is based on Gippsland Water's full-time equivalent workforce. Gippsland Water personnel are employed in both the regulated and unregulated sections of Gippsland Water's activities. Unregulated activities include Gippsland Water's SORF, as well as Gippsland Water's farming activities at Dutson Downs, Maffra, Drouin and a number of smaller sites across the region. The details outlined below exclude all personnel employed in these unregulated activities.

Table 4.19: Full Time Equivalent Personnel (Excluding Unregulated Activities)

	12/13	13/14	14/15	15/16	16/17	17/18
Total	**244.6**	**247.1**	**244.1**	**244.1**	**240.1**	**240.1**
Movement – year on year		+2.5	-3	0	-4	0

Reductions in full-time equivalent personnel are the result of specific period based employment arrangements coming to an end. In 2014/15, a number of capital planning roles will be phased out. In 2016/17, several long term capital project delivery roles will also be phased out.

Total labour costs for the third regulatory period are outlined below. Total labour costs include:

- Direct salaries paid to personnel
- Superannuation costs
- Workcover costs and payroll tax costs
  - These costs have also been disclosed below at the request of the ESC.

Table 4.20: Total Labour Costs (Excluding Unregulated Activities) ($ Jan 13 – millions)

	12/13	13/14	14/15	15/16	16/17	17/18
Total	**24.06**	**24.65**	**25.10**	**25.49**	**26.05**	**26.57**

Table 4.21: Specific Labour Oncosts (Excluding Unregulated Activities) ($ Jan 13 – millions)

	12/13	13/14	14/15	15/16	16/17	17/18
Workcover	0.19	0.20	0.20	0.20	0.21	0.21
Payroll Tax	1.08	1.11	1.13	1.15	1.17	1.20

The ESC requested that water corporations include annual forecasts of wage cost growth. The ESC also noted that the Victorian Government expectation is for wages to increase by 2.5% per year with any additional increases funded through productivity improvements. Gippsland Water's assumptions regarding forecast wages growth are detailed below.

Table 4.22: Wage Rate Forecasts

	12/13	13/14	14/15	15/16	16/17	17/18
Real Increase	2.40%	2.15%	2.15%	1.90%	1.90%	1.90%

Gippsland Water's current enterprise agreement provides for increases of up to 4% per annum. Gippsland Water's wage rate forecast for the third regulatory period is based on enterprise agreement rises of 3.75% per annum, plus an additional 1.15% career progression increase. The career progression increase percentage is based upon an enterprise agreement increase, and an individual's position within the banding structure in conjunction with their results in the annual performance review process.

These increases have then been reduced by any superannuation guarantee increase relevant to a particular year. Superannuation guarantee increases range from 0.25% - 0.5% per annum during the third regulatory period. The forecast enterprise agreement rise is also discounted by CPI (Gippsland Water assumes CPI at an annual rate of 2.5%) to derive the real increase outlined above. This is required because all Water Plan values are expressed in Jan 2013 dollars.

Superannuation guarantee increases over the period are included in the superannuation cost calculations. They are therefore absorbed within the increase process, rather than shown as an additional cost.

4.8 OVERVIEW OF THE OPEX PRODUCTIVITY HURDLE

The ESC has indicated that it will assess operating expenditure in the third regulatory period by establishing a baseline 'business as usual' level of operating costs. This baseline will reference 2011/12 actual operating costs data given 2011/12 is the last year of actual expenditure available before the ESC's final decision on prices for the third regulatory period. The baseline must be adjusted to remove any one-off costs incurred during 2011/12. Gippsland Water has removed a one-off cost of $4.6M associated with recording an unfunded superannuation liability in June 2012. An additional $1.95M has been removed for one-off events at the GWF during 2011/12.

The ESC requires that a productivity factor be applied to the customer growth adjusted business as usual (BAU) level of operating expenditure forecast for the third regulatory period. The ESC has determined that Gippsland Water must achieve a minimum of 1 per cent per year productivity improvement on its customer growth adjusted BAU operating expenditure for the third regulatory period.

Gippsland Water's annual water connections growth rate is 1.7% for the regulatory period, while the annual wastewater connections growth rate is 2.5%. Using the lower water connections growth rate of 1.7%, Gippsland Water comfortably meets the ESC productivity hurdle for the third regulatory period.

SECTION 5

Gippsland Water has a range of capital programs in place to ensure the long-term integrity of the water and wastewater infrastructure servicing central Gippsland.

CAPITAL EXPENDITURE

5.1 CAPITAL EXPENDITURE

Gippsland Water continues to operate in a regulatory environment where debt is carefully monitored and constrained. Gippsland Water is required to plan for future capital expenditure within these financial constraints. Gippsland Water undertakes capital works at a time when they are assessed to be required to maximise the effectiveness of the investment. To be successful, Gippsland Water maintains a strong risk management discipline to ensure that capital works undertaken are both prudent and efficient, and are based on well structured, risk-based prioritisation criteria.

Gippsland Water's forecasts for capital expenditure for each year of the regulatory period are detailed below along with the key drivers of expenditure, and information to show that the expected levels of expenditure are prudent and efficient.

5.2 CHANGES IN PROPOSED EXPENDITURE FROM DRAFT WATER PLAN

During the recent consultation process on Gippsland Water's draft Water Plan 3 proposal, Gippsland Water did not identify any major changes that were required to be made in response to feedback received during the consultation process.

Since the release of the draft Water Plan 3 proposal, Gippsland Water has identified some changes to capital expenditure. This has occurred due to improvements in cost estimates for some projects becoming available since the draft was released. Total capital expenditure however remains unchanged from that proposed in the draft.

5.3 OVERVIEW OF CAPITAL EXPENDITURE

Detailed in Table 5.1 is an overview of capital expenditure required to allow Gippsland Water to meet its obligations and deliver services during the regulatory period. Gippsland Water's capital expenditure forecast for the third regulatory period totals $202.94M. Annual expenditure varies from year to year depending on the timing of major projects.

Table 5.1: Overview Of Capital Expenditure ($ Jan 13 – millions)

Function	13/14	14/15	15/16	16/17	17/18	Total
Water	8.47	11.43	8.58	20.48	18.12	67.07
Wastewater	33.17	43.47	29.55	14.21	15.46	135.87
Sub-total	41.63	54.90	38.13	34.69	33.59	202.94
Less						
Govt Contributions	-3.35	Nil	Nil	Nil	Nil	-3.35
Customer Contributions	-2.66	-2.81	-5.17	-2.86	-3.52	-17.01
Total	**35.62**	**52.09**	**32.96**	**31.84**	**30.07**	**182.58**

In developing the capital plan for this regulatory period, Gippsland Water has recognised the outputs of several long term reviews that have determined a need for capital investment in the region. In particular, Gippsland Water has looked to ensure that this capital plan is consistent with the actions outlined by the Victorian Government in the Gippsland Region Sustainable Water Strategy (GRSWS), which was released in November 2011. Expenditure of note in this area relates to Gippsland Water securing an increase in the corporation's bulk entitlement for water from Blue Rock Reservoir.

In addition, Gippsland Water has recently completed its 2012 Water Supply Demand Strategy (WSDS) for the region. The WSDS is a 50 year forward look at water supply systems, and the demand supply balance for these systems, across the region. The WSDS detailed a number of actions, including timelines for the implementation of these actions that were required to be undertaken to ensure security of supply into the future.

Further support for the expenditure outlined was derived from the Victorian Government's Country Towns Water Supply and Sewerage (CTWSS) Program that aims to improve water and sewerage services to small towns in regional Victoria. In particular, the objectives of the program were to improve the quality of water and sewerage services in country towns currently experiencing environmental and public health impacts. The towns of Coongulla / Glenmaggie and Loch Sport were identified as priority towns under the program.

Gippsland Water has ongoing programs for the addition and renewal of water reticulation and wastewater reticulation systems. Asset renewal includes replacing or rehabilitating deteriorated assets to return them to a condition whereby they can deliver their required level of service. This expenditure is significant, and is supported by detailed reviews of asset condition and robust forward planning. Planning takes into consideration both proposals for regional development that demand additional works, and risk analysis related to condition and failure predictions for existing infrastructure renewals.

Examples of different types of asset renewals include replacing mechanical or electrical equipment, excavating and replacing existing water and wastewater pipes, rehabilitating pipes by internal re-lining (without having to excavate and replace pipe sections) and overhauling and rebuilding major mechanical plant.

These examples illustrate that once an asset reaches the end of its life it may not simply be replaced with a similar asset. Although this is the case for some assets (eg, mechanical and electrical equipment, motor vehicles, switchboards, office computers etc) it is not always applicable for 'civil' infrastructure assets that are an integral part of the system. The renewal strategy for many civil assets, such as buried pipelines or concrete structures such as pump station wet wells, involves substantial in-service rehabilitation to 'renew' the service potential of the asset until such time as total replacement is unavoidable. The same approach is also used with major items of mechanical plant that can be 'renewed' by overhauling and rebuilding at a lower cost than outright replacement.

Further detail in relation to this capital expenditure is provided in Table 5.2 and Table 5.3, where the allocation between water and wastewater services is detailed, along with asset type within each area.

Capital expenditure associated with the collection and storage of water, including that relating to dams, reservoirs, bores, river intakes and associated storages and the water transfer mains between storages are included in the headworks category. Capital expenditure associated with all pipe networks utilised for water or wastewater services are included in pipelines/networks category.

Capital expenditure associated with treatment, including the treatment of water before it enters the distribution network and the treatment and disposal of wastewater and trade waste are included in the treatment category. General corporate expenditure that cannot be reasonably allocated to other activity areas has been included the corporate category.

Table 5.2: Total Capital Expenditure By Asset Type - Water ($ Jan 13 – millions)

Category	13/14	14/15	15/16	16/17	17/18	Total
Headworks	0.68	Nil	Nil	8.60	5.70	14.98
Pipelines / Networks	3.59	4.52	6.48	7.71	8.12	30.41
Treatment	3.39	6.11	1.09	1.46	2.13	14.18
Corporate	0.81	0.80	1.01	2.71	2.17	7.50
Total	**8.47**	**11.43**	**8.58**	**20.48**	**18.12**	**67.07**

Table 5.3: Total Capital Expenditure By Asset Type - Wastewater ($ Jan 13 – millions)

Category	13/14	14/15	15/16	16/17	17/18	Total
Headworks	Nil	Nil	Nil	Nil	Nil	Nil
Pipelines / Networks	12.45	14.26	10.49	7.54	8.95	53.69
Treatment	17.56	26.16	15.59	4.79	4.67	68.76
Corporate	3.16	3.05	3.47	1.88	1.85	13.41
Total	**33.17**	**43.47**	**29.55**	**14.21**	**15.46**	**135.87**

5.4 SIGNIFICANT CAPITAL PROJECTS

Gippsland Water provided information in relation to 12 of the corporation's most significant capital projects in the draft Water Plan 3 proposal. These top 12 projects remain in the Gippsland Water capital plan for the third regulatory period. The descriptions below include details such as the drivers of each project and the outcomes that will be delivered by each project. A table for each project details the expected delivery date for the project, and the cost of the project for each year of the period.

Loch Sport Sewerage Scheme

The Loch Sport Sewerage Scheme is a $40.3M Gippsland Water project that will deliver reticulated sewerage services to approximately 2,700 properties in the lakeside township of Loch Sport.

The scheme will be delivered by Gippsland Water as part of the Victorian Government's CTWSS Program, which listed Loch Sport amongst 35 priority towns to be provided with water or wastewater services. The scheme was announced by the then Minister for Water in January 2006. The project was sought by Wellington Shire Council to protect the environment and public health within the Gippsland Lakes region, and was supported by EPA and DSE.

A total of $8.3M has been received from the Victorian Government towards the cost of the planning and development phases of the Loch Sport project. A further $1.0M is expected to be received during 2012/13.

A pressure sewer system was selected as the preferred solution for this project because of its environmental, economic, health and service quality benefits. It was also considered the lowest cost and best technical solution. A transfer main will pump wastewater to Gippsland Water's existing wastewater treatment facility at Dutson Downs.

Construction is expected to commence in early 2013 and be completed in the 2015/16 financial year.

Table 5.4: Loch Sport Sewerage Scheme ($ Jan 13 – millions)

Planned Expenditure Details: $32.3M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	9.16	17.70	5.21	0.21	Nil	Nil

Warragul - Moe Water Supply Interconnect - Stage Two

The Warragul to Moe Water Supply Interconnect is a two-stage project connecting water supplies between Moe and Warragul to allow for future population growth, and improve long term water supply security.

Gippsland Water has recently completed stage one of this project. Stage one consisted of connecting the water supply from Yarragon to Darnum. Stage one has allowed 1.2 million litres of water used in Darnum each day to be supplied from the Moe Water Treatment Plant.

Stage two of the project will see Darnum connected to the Warragul water supply system via a new, larger diameter pipeline. Once completed, the Warragul and Moe water supply systems will be fully connected.

This will enable the transfer of water from Moe to Warragul, providing Warragul with access to water from Blue Rock Dam, if necessary, improving long term water supply security for Warragul and Drouin.

This project will also improve operational flexibility. In the event of a problem with the Moe water supply system for example, the Warragul system could provide water to towns such as Darnum, Yarragon and Trafalgar to ease demand on the Moe Water Treatment Plant.

This project is expected to be completed in 2016/17.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project increase from $7.4M to $8.9M during the third regulatory period.

Table 5.5: Warragul - Moe Water Supply Interconnect - Stage Two ($ Jan 13 – millions)

Planned Expenditure Details: $8.9M during period (To complete Stage 2)						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	0.34	Nil	Nil	8.60	Nil	Nil

Sale Water Treatment Plant Upgrade

This project involves replacing the aeration towers and chemical contact tanks, and upgrading the chemical delivery and dosing systems to improve the efficiency and safety at the Sale Water Treatment Plant.

Works include demolishing the existing towers and contact tanks which are now over 20 years old and have reached the end of their operational lives.

All works undertaken will be sensitive to preserving the treatment plant's heritage listed façade, which was originally built in the 1930s. This project is expected to be completed in 2014/15.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project decrease from $5.3M to $5.0M during the third regulatory period.

Table 5.6: Sale Water Treatment Plant Upgrade ($ Jan 13 – millions)

Planned Expenditure Details: $5.0M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	0.75	4.25	Nil	Nil	Nil	3.20
Other Comments: Out years expenditure noted is an initial estimate for works in 2018/19 to improve controls in relation to water taste issues.						

Warragul-Hazel Creek Trunk Sewer (Stage Three)

Warragul is experiencing high growth and this requires the wastewater system to be upgraded to cater for current and future development. The Hazel Creek Trunk Sewer project is a gravity main from the Warragul wastewater treatment plant on the east side of Warragul through to the developing west side of Warragul. The new main will reduce the risk of wastewater overflows and cater for projected population growth in Warragul over the next 50 years.

The project has been developed in three stages. The first stage of this project was completed in 2010/11. Construction of stage two began during 2011/12. Stage three is the final stage of the project. Detailed design and planning for stage three will continue during 2012/13. Construction will commence in 2014/15.

This project is expected to be completed in 2014/15.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project decrease from $6.0M to $4.9M during the third regulatory period.

Table 5.7: Warragul-Hazel Creek Trunk Sewer (Stage Three) ($ Jan 13 – millions)

Planned Expenditure Details: $4.9M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	0.20	4.76	Nil	Nil	Nil	Nil

Drouin Wastewater Treatment Plant Upgrade

The town of Drouin is growing rapidly. This project provides funding to improve the operational performance and treatment capacity of the Drouin Wastewater Treatment Plant, to cater for this growth.

This project will introduce inlet screening that will remove solids from the wastewater entering the plant. A new inlet pump station is also required to control flow to the plant.

This project is expected to be completed in 2015/16.

Table 5.8: Drouin Wastewater Treatment Plant Upgrade ($ Jan 13 – millions)

Planned Expenditure Details: $3.5M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	0.51	2.03	1.02	Nil	Nil	15.00

Other Comments:
Out years expenditure noted is an initial estimate for works in 2019/20 and 2020/21 to replace the existing wastewater treatment plant as growth in Drouin expands the town beyond the treatment capacity of the current wastewater treatment plant.

Coongulla/Glenmaggie Sewerage Scheme

The Coongulla/Glenmaggie Sewerage Scheme is a $22.45M Gippsland Water project that will deliver reticulated wastewater services to more than 300 properties in Coongulla, Glenmaggie Point and Glenmaggie.

The scheme will be delivered by Gippsland Water as part of the Victorian Government's CTWSS Program, which listed Coongulla and Glenmaggie amongst 35 priority towns to be provided with water or wastewater services. The project was initiated to protect the environment and public health, particularly around and downstream of Lake Glenmaggie.

A pressure sewer system was selected as the best sewerage solution for Coongulla and Glenmaggie. This system will feature a reticulation system that links each household within the declared sewerage district to a transfer main that will pump wastewater to Gippsland Water's existing wastewater treatment plant at Heyfield.

Construction of the Coongulla/Glenmaggie Sewerage Scheme has commenced, with works separated into a number of packages, as outlined below:

- Project development, management and deliver
- Heyfield Wastewater Treatment Plant upgrades
- Transfer main (Glenmaggie Pump Station to Heyfield Wastewater Treatment Plant)
- Glenmaggie (Licola Road) Pump Station
- Under-lake crossing horizontal directional bored pipelines
- Reticulation and transfer mains
- Coongulla (Ryans Road) Booster Sewer Pump Station
- Grinder pump supply
- Gippsland Water on-site works

Expenditure on the project will peak in 2012/13. Minor works to bring the Coongulla/Glenmaggie Sewerage Scheme to completion will occur until the scheme is fully operational in 2014.

Table 5.9: Coongulla/Glenmaggie Sewerage Scheme ($ Jan 13 – millions)

Planned Expenditure Details: $2.8M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	1.69	1.12	Nil	Nil	Nil	Nil

Traralgon Wastewater Pipeline Replacement

This is an augmentation project of approximately two kilometres of new wastewater pipes in Traralgon's residential area. Starting near the intersection of Cross's Road and Stockdale Road, the new pipe will increase the capacity of the wastewater system and assist in reducing the risk of wastewater overflows and spills in periods of high rainfall.

This project is expected to be completed in 2013/14.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project decrease from $3.3M to $2.5M during the third regulatory period.

Table 5.10: Traralgon Wastewater Pipeline Replacement ($ Jan 13 – millions)

Planned Expenditure Details: $2.5M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	2.51	Nil	Nil	Nil	Nil	Nil

Drouin Wastewater Trunk Main Augmentation

As noted above, Drouin is growing rapidly. This new wastewater pipeline, which will be constructed from near Settlement Road to the wastewater treatment plant will reduce the risk of wastewater overflows during periods of high rainfall and cater for the projected long term growth of the town.

This project is expected to be completed in 2015/16.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project decrease from $1.5M to $1.4M during the third regulatory period.

Table 5.11: Drouin Wastewater Trunk Main Augmentation ($ Jan 13 – millions)

Planned Expenditure Details: $1.4M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	Nil	0.20	1.20	Nil	Nil	Nil

Sale/Fulham Irrigation Infrastructure

Gippsland Water's Corporate Licence with the EPA encourages the corporation to recycle treated wastewater wherever possible. Sale/Fulham wastewater is currently transported to Dutson Downs in a new pipeline constructed as part of the GWF project. Wastewater currently received at Dutson Downs is processed through a lagoon treatment system and then discharged via an ocean outfall to Bass Strait.

This project will see Gippsland Water's existing No. 2 treatment lagoon transformed to treat Sale/Fulham wastewater and act as a winter storage for treated class 'C' recycled water. This recycled water can then be used for irrigation purposes during the summer period.

This project also includes the purchase of 10 centre-pivot irrigators that will distribute recycled water to approximately 300 hectares of land, and apply up to 1,000 million litres of recycled water to fodder, crops and grazing land annually. As well as meeting the EPA recycling objectives, the recycled water will provide the opportunity to significantly improve productivity of agricultural activities at Dutson Downs.

This project is expected to be completed in 2014/15.

Table 5.12: Sale/Fulham Irrigation Infrastructure ($ Jan 13 – millions)

Planned Expenditure Details: $1.3M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	1.25	0.10	Nil	Nil	Nil	Nil

Moe Water Treatment Plant Upgrade

The works at the Moe Water Treatment Plant will upgrade electrical and chemical control systems to improve safety and increase capacity to meet the growing needs of the existing towns that the water treatment plant supplies.

This upgrade will be timed to coincide with stage two of the Warragul-Moe Interconnect project (which is planned to be completed by June 2018), and will ensure the additional demands from the interconnection can be met.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project increase from $2.9M to $3.2M with completion now delayed until 2018/19.

Table 5.13: Moe Water Treatment Plant Upgrade ($ Jan 13 – millions)

Planned Expenditure Details: $0.2M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	Nil	Nil	Nil	0.21	Nil	2.96
Other Comments: Was $2.9M in second regulatory period, completion now planned for 2018/19						

5.5 SMALL TOWN CAPITAL PROJECTS

Some additional capital projects, while less significant in terms of the level of expenditure are equally significant to small local communities. Two examples of these projects are outlined below.

Trafalgar Waste - Middle Road Sewer Pump Station

Trafalgar's main pump station will receive an upgrade to reduce the risk of wastewater overflows during times of high rainfall. This project will see an increase in the size of the wet well at the pump station site, which will also service the projected future growth of the town.

This project is expected to be completed in 2013/14.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project decrease from $1.3M to $0.6M during the third regulatory period following the completion of investigations to prove the viability of upgrading the pump station instead of replacing it.

Table 5.14: Trafalgar Waste - Middle Road Sewer Pump Station ($ Jan 13 – millions)

Planned Expenditure Details: $0.6M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	0.56	Nil	Nil	Nil	Nil	Nil

Yarragon Waste - Factory Road Sewer Pump Station

This sewer pump station upgrade will reduce the risk of wastewater overflows and improve the capacity of the pump station servicing Yarragon. The upgrade works will involve raising the ground level infrastructure to above flood level to prevent the ingress of flood water during heavy rainfall periods.

This project is expected to be completed in 2013/14.

A review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the scope change from the compete upgrade of the civil, mechanical and electrical infrastructure after it was identified that the stormwater inflow was a major component of the peak flows and that methods to effectively control this were available. The estimate for this project has decreased from $1.6M to $0.4M during the third regulatory period.

Table 5.15: Yarragon Waste - Factory Road Sewer Pump Station ($ Jan 13 – millions)

Planned Expenditure Details: $0.4M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	0.35	Nil	Nil	Nil	Nil	Nil

5.6 SIGNIFICANT CAPITAL PROGRAMS

Gippsland Water has a range of capital programs in place to ensure the long-term integrity of the water and wastewater infrastructure servicing central Gippsland. Gippsland Water provided information in relation to eight of the corporation's most significant capital programs in the draft Water Plan 3 proposal. These programs remain in the Gippsland Water capital plan for the third regulatory period. The descriptions below include details such as the drivers of each program and the outcomes that will be delivered. A table for each program details the cost of the program for each year of the period.

Shared Assets - Wastewater

Gippsland Water supports future development in the region by investing in major new wastewater infrastructure when it is required. Large infrastructure assets that will be utilised by more than one existing or new development are called 'shared assets'.

The central Gippsland region is experiencing high levels of growth, especially in the towns of Warragul, Drouin and Traralgon. Catering for this growth requires a significant investment in shared assets.

When a developer requests connection to Gippsland Water's water and wastewater networks, Gippsland Water and the developer work together to provide the required works to service both the development itself, and the larger catchment area.

Gippsland Water provides major treatment plants, headworks and outfall; and shared assets that have sufficient capacity to meet future demand taking into account a long term planning horizon. Developers provide the reticulation assets that are required to service their development and connect to Gippsland Water's network.

The cost estimates for this program are based on the works expected to be required. This is an ongoing program, and expenditure will occur across all years of the period.

A cost estimate review undertaken on this project since the release of the draft Water Plan 3 proposal has seen the estimate for this project increase from $11.4M to $11.7M during the third regulatory period.

Table 5.16: Shared Assets – Wastewater ($ Jan 13 – millions)

Planned Expenditure Details: $11.7M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	1.89	3.15	1.80	2.53	2.32	Ongoing

Regional Outfall System (ROS) Renewal Program

The Regional Outfall System (ROS) (formerly known as the Regional Outfall Sewer) was constructed in the 1950s and has been in operation in excess of 60 years. The ROS consists of 46 km of pre stressed concrete pipe and 40 km of unlined earthen channel. The ROS is the main outfall infrastructure for a large part of central Gippsland, including the townships of Traralgon, Morwell (part), Rosedale, Churchill, Yinnar, Boolarra, Sale, Wurruk, Fulham, Glengarry and Toongabbie, and major industries which include Australian Paper and National Foods.

The GWF project was undertaken to eliminate raw and untreated urban sewage and untreated industrial trade waste from the sewer to prevent odours and prolong the serviceable life of the ROS asset. In particular, the pre-stressed concrete pipeline, creek crossings, culverts, syphons and other associated structures along the ROS.

In recent years, an increasing number of failures of these structures have manifested as these components reach the end of their serviceable life. Condition monitoring as a consequence of these failures has indicated a number of other critical points that are close to, or exhibiting signs of, risk of major failure along the ROS.

Ongoing preventative upgrades of this asset will be required in order to extend the serviceable life of the ROS. The ROS is a critical asset requiring a high level of reliability, because it is the only disposal route for treated wastewater for the above towns and industries.

The expenditure program outlined in this plan is for selective ongoing upgrade of ageing sections of concrete pipeline, creek crossings, culverts, syphons and other associated structures along the ROS that are reaching the end of their serviceable life.

This is an ongoing program, and expenditure each year is prioritised to meet items identified in condition reports and risk assessment as presenting an unacceptable risk to the service reliability of the ROS.

Table 5.17: Regional Outfall System Renewal Program ($ Jan 13 – millions)

Planned Expenditure Details: $9.7M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	2.44	2.10	2.70	1.37	1.13	Nil

SCADA Asset Upgrade Program

SCADA generally refers to industrial control systems: computer systems that monitor and control industrial, infrastructure, or facility-based processes.

Gippsland Water has approximately 360 sites on its SCADA system. These sites vary from major treatment facilities to small flow and pressure monitoring sites. This program will address an ongoing lifecycle replacement activity for all SCADA equipment, namely programmable logic controllers, remote terminal units and radios. The main focus is to address equipment that has reached 'end of life'. The program will also address the following areas:

- meet necessary SCADA requirements for plant upgrades and new projects to be undertaken in the period;
- address the need to improve the SCADA and telemetry security as the older equipment was not designed by vendors with security in mind; and
- introduce uniform equipment across the region.

The cost estimates for this program are based on the works expected to be required. This is an ongoing program, and expenditure will occur across all years of the period.

Table 5.18: SCADA Asset Upgrade Program ($ Jan 13 – millions)

Planned Expenditure Details: $7.4M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	1.51	1.44	1.56	1.47	1.37	Ongoing

Water Reticulation System Renewals Program

Gippsland Water has more than 2,000 kilometres of water reticulation pipes. The age and condition of this pipe network varies considerably, with most pipes over 70 years old already replaced.

The useful lives of individual pipelines are dramatically reduced during prolonged drought, especially in expansive clay soils. Most of Gippsland Water's reticulation pipelines are in clay soils, with some areas being highly expansive. The expansive clay soils shrink during droughts and expand in the wet periods, putting bending stresses on the pipes which often results in failure of the older pipes.

Gippsland Water's pipe analysis includes recording and tracking every water pipe leak and main break. A risk based assessment is undertaken every year.

From this analysis, a long-term rolling renewal program is developed to ensure that water pipes are in good working order and that levels of service can be maintained.

The cost estimates for this program are based on historical costs for similar upgrades and replacements that have occurred in previous periods. This is an ongoing program, and expenditure will occur across all years of the period.

Table 5.19: Water Reticulation System Renewals Program ($ Jan 13 – millions)

Planned Expenditure Details: $6.1M during period						
Year	13/14	14/15	15/16	16/17	17/18	Out years
	1.02	1.02	1.02	1.52	1.52	Ongoing

Water Treatment Plant Enhancements

Gippsland Water has 17 water treatment plants and approximately 30 remote disinfection sites across the region. Minor capital works will be undertaken across the sites and plants to enhance their effectiveness in delivering potable water to our customers while ensuring adherence to the SDWA, Safe Drinking Water Regulations and risk management plans.

Gippsland Water's site improvement plan process is designed to identify and prioritise improvement works which are required for each individual site within the next regulatory period. Site Improvement works are identified through the following annual programs:

- filter inspection/refurbishment; and
- basin inspection and cleaning;

As well as minor capital renewals associated with:

- instrument upgrade and replacements;
- chemical dosing systems; and
- upgrade of plant infrastructure to comply with standards; and minor capital upgrades, renewals and repairs associated with maintenance of water treatment and disinfection sites.

The cost estimates for this program are based on historical costs for similar upgrade/ replacements that have occurred in previous periods. This is an ongoing program, and expenditure will occur across all years of the period.

Table 5.20: Water Treatment Plant Enhancements ($ Jan 13 – millions)

Planned Expenditure Details: $5.7M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	1.04	1.09	1.09	1.25	1.25	Ongoing

Wastewater Reticulation System Renewals Program

Gippsland Water has approximately 1,500 kilometres of reticulation wastewater pipes. The wastewater pipe network is of variable age and condition and Gippsland Water faces a constant challenge to keep pace with increases in the volume of wastewater being collected and treated.

Invasion of tree roots, ground conditions, construction activity and drought can all cause pipes to crack and/or break.

A comprehensive monitoring program of the installed wastewater reticulation system is in place. This program determines the condition and remaining service life of the installed pipework. A long-term program for replacement of poor condition pipework is developed and updated annually, to ensure that levels of service can be maintained.

This annual expenditure reduces the potential risk of sewer spills and loss of service to customers. Closed circuit television (CCTV) inspection is undertaken by Gippsland Water. CCTV footage is used to assist with the identification of cost efficient ways to extend the life of the wastewater system.

The final annual wastewater rehabilitation/renewal program is only determined following completion of detailed CCTV inspection of identified pipelines.

The cost estimates for this program are based on historical costs for similar upgrade/ replacements that have occurred in previous periods. This is an ongoing program, and expenditure will occur across all years of the period.

Table 5.21: Wastewater Reticulation System Renewals Program ($ Jan 13 – millions)

Planned Expenditure Details: $5.1M during period						
Year	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**Out years**
	1.02	1.02	1.02	1.02	1.02	Ongoing

GWF Membrane Replacement Works

The GWF is a wastewater treatment facility that treats domestic and industrial wastewater and transfers it from Maryvale to Dutson Downs. It uses a range of treatment methods including anaerobic digestion, ultra-filtration and reverse osmosis treatment processes.

Recycled domestic wastewater treated to class ‘A’ standard can be reused by the Australian Paper Maryvale plant.

To ensure the wastewater continues to be treated to an acceptable standard, approximately 20% of the membranes need to be replaced annually at an estimated cost of $1M. This program represents ongoing expenditure.

Table 5.22: GWF Membrane Replacement Works ($ Jan 13 – millions)

	Planned Expenditure Details: $5M during period					
Year	13/14	14/15	15/16	16/17	17/18	Out years
	0.94	1.09	0.99	0.99	0.99	Ongoing

GWF Minor Improvement Works

Gippsland Water will also complete a number of minor improvement works at the GWF, with an estimated $1M allocated annually to complete these works. This program represents ongoing expenditure.

Table 5.23: GWF Minor Improvement Works ($ Jan 13 – millions)

	Planned Expenditure Details: $5M during period					
Year	13/14	14/15	15/16	16/17	17/18	Out years
	0.94	1.09	0.99	0.99	0.99	Ongoing

5.7 PRUDENT AND EFFECTIVE LEVELS OF CAPITAL EXPENDITURE

The difficulties in developing a capital expenditure program for a five year period, with an end date some six years distant are significant. Gippsland Water identified several key issues that required resolution during the development of the capital expenditure plan to ensure that proposals put forward in this Water Plan for the third regulatory period were both prudent and efficient.

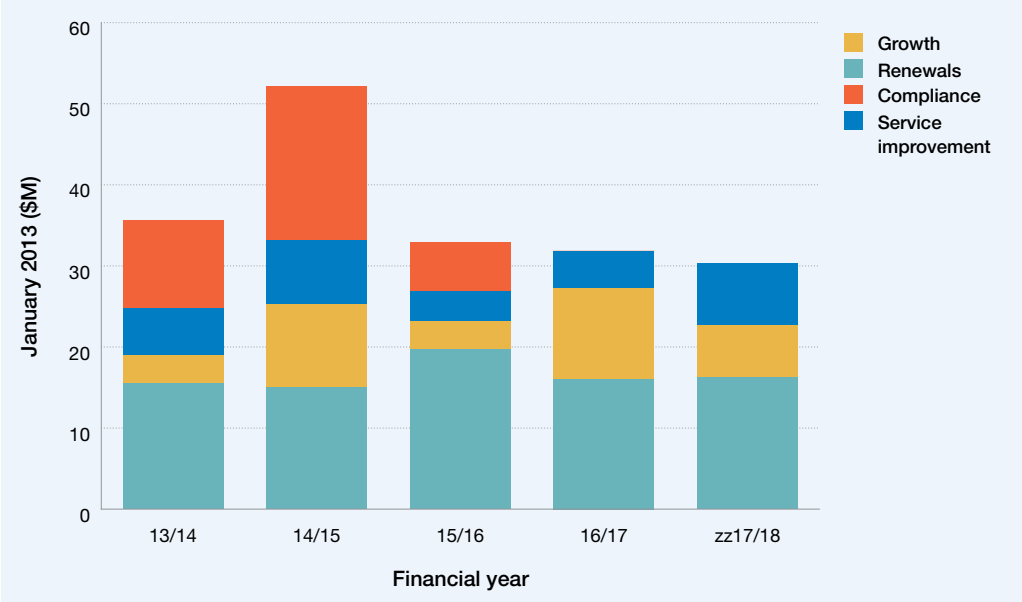
The key issues identified were:

- understanding the cost drivers that require capital expenditure to be undertaken;
- the need for risk assessment and prioritisation of projects to develop a priority listing of projects; and
- estimate accuracy for works over $2M included in this plan for the third regulatory period.

Gippsland Water's approach to these issues is outlined in more detail in Appendix 5 of this plan.

Capital expenditure can also been identified by cost driver. Figure 5.1 below depicts net capital expenditure for the third regulatory period by year and cost driver.

Figure 5.1: Net Capital Expenditure By Cost Driver



Both the Loch Sport Sewerage Scheme and Coongulla/Glenmaggie Sewerage Scheme, together with a range of smaller water and wastewater projects are classified as 'compliance' expenditure in figure 5.1. In contrast, the Warragul - Moe Water Supply Interconnect - Stage 2 is the largest expenditure classified as 'growth'. Similarly, the Sale Water Treatment Plant Upgrade and the SCADA Asset Upgrade Program are the largest expenditures classified as 'service improvement'.

5.8 LEVEL OF ESTIMATE ACCURACY

At any point in time, Gippsland Water has a range of capital projects and programs at various stages between concept and completion. Cost estimates in the early stages such as functional design can vary significantly with proposed final costs after a detailed design has been completed. In this Plan, Gippsland Water has elected to present capital project costs on the following basis:

- all major projects that have passed the tender stage are recorded at current estimated cost (assumed P95 level of confidence);
- all major projects above $2M that have not passed the tender stage have been reviewed in a risk workshop and have been recorded at the estimated cost derived from the work (assumed P50 level of confidence);
- all minor projects that have not passed the tender stage are record at current estimated cost (assumed P50 level of confidence); and
- all capital programs are recorded at current estimated cost (assumed P95 level of confidence).

This is a deviation from the ESC's request that all overall capital expenditure amounts proposed in Water Plans be based on P50 cost assumptions. Gippsland Water will provide information from the risk workshops conducted to support major project estimates during the ESC's review of Gippsland Water's capital proposal.

As noted above, Gippsland Water's approach to this issue is outlined in more detail in Appendix 5 of this Plan.

SECTION 6

Statistical analysis, including the determination of mean, median and weighted moving averages has been undertaken for all the region's large towns.

DEMAND

6.1 DEMAND FORECASTS

Of all the tasks to be undertaken to bring a Water Plan together, no issue is perhaps more difficult than the task of determining demand forecasts. These forecasts underpin the calculation of future revenues, and thus directly impact on any proposed tariff movements during the third regulatory period. In this plan, Gippsland Water must set out forecasts for the range of services that it provides. Forecasts must be prudent and reasonable, and take into account relevant sources of reference.

This includes forecasting the levels of growth that will occur across Gippsland Water's customer base over the next six years in relation to water supply services, including:

- Residential water connections
- Non-residential water connections
- Fire service connections
- Residential water consumption
- Non-residential water consumption
- Major customer water consumption

This also includes forecasting the levels of growth that will occur across Gippsland Water's customer base over the next six years in relation to wastewater and trade waste services, including:

- Residential wastewater connections
- Non-residential wastewater connections
- Non-residential wastewater volumes
- Major customer wastewater volumes
- Trade waste connections

Sources of reference for this forecasting task are limited to:

- previous growth history captured by Gippsland Water;
- trend analysis conducted by Gippsland Water;
- longer term WSDS projections determined by Gippsland Water;
- local council planning information relevant to land supply availability and expected growth rates; and
- 'Victoria in Future' statistical analysis released by the Department of Planning and Community Development (DPCD).

‘Victoria in Future’ Forecasts

DPCD update and release ‘Victoria in Future’ projections from time to time. During the period in which Gippsland Water undertook the bulk of its analysis in relation to demand forecasts, Victoria in Future 2008 projections, and an update to these projections were the latest data available for comparative purposes.

In April 2012, DPCD released Victoria in Future 2012 projections covering the period 2011 to 2051 for Victoria, metropolitan Melbourne and the whole of regional Victoria. Projections for smaller geographical areas (Statistical Local Areas (SLA), Local Government Areas and Regional Statistical Divisions) cover the period 2011 to 2031. Gippsland Water has not noted any significant changes in the Victoria in Future 2012 projections that would impact on either the methodology or the forecasts outlined below.

Gippsland Water also notes that while external sources of reference like ‘Victoria in Future’ can be used as a guide, the detail they provide can lack relevance to the forecasting task. To put this into perspective, the DPCD ‘Victoria in Future’ projections are based on ‘SLAs’ and ‘local government areas’, rather than the town by town basis that Gippsland Water has adopted for forecasting. An example provides some clarity around this concern. Reference to the latest Victoria in Future 2012 data shows that in the Baw Baw (Part B west) SLA, dwellings are expected to:

- grow by 3.1% in the period from 2011 to 2016; and
- grow by 2.9% in the period 2016 to 2021.

Contrast this to Gippsland Water’s historical data for Drouin (within the Baw Baw SLA), which indicates that over the past four years, including 2011/12, connections in Drouin grew by an average of 7% per annum.

As DPCD themselves point out, the Victoria in Future 2012 population projections are not predictions of the future, nor are they targets. They analyse changing economic and social structures and other drivers of demographic trends to indicate possible future populations if the present identified demographic and social trends continue.

In the development of demand forecasts for the third regulatory period, Gippsland Water has undertaken an internal review of expected growth rates for all local regional towns, adopting growth rates that reflect local knowledge of proposed developments rather than adopting a ‘one-size-fits-all’ approach. Identifying growth by town provides robustness with respect to demand forecasts.

Levels of water restrictions expected during the third regulatory period

Any water consumption forecasts for the third regulatory period need to be made with a clear understanding of the expected levels of water restrictions that will apply during the regulatory period. Gippsland Water’s forecasts have been based on the premise that water restrictions will not be required during the period. Permanent Water Saving Rules are expected to apply for the duration of the third regulatory period.

6.2 PROPERTY CONNECTIONS FORECASTS

6.2.1 Water Connections - Residential

Gippsland Water has adopted two different methodologies for identifying connections growth by town. Statistical analysis, including the determination of mean, median and weighted moving averages has been undertaken for all the region's large towns. This information has been compared with historical growth rates, as well as current local council information (forecast growth and land supply availability). 'Victoria in Future' forecasts from the DPCD have also been reviewed to test the validity of the data. As a result of this analysis, Gippsland Water has adopted mean growth rates as the basis of large town growth in this plan. In contrast, the region's numerous smaller towns account for less than 12% of forecast connections growth. As such, recent growth for each smaller town has been annualised for use in this plan.

The large towns selected by Gippsland Water for more detailed analysis were chosen because trend analysis results indicated high growth in connections (more than 24 connections a year); or relatively larger town size (over 1000 connections). The towns selected were:

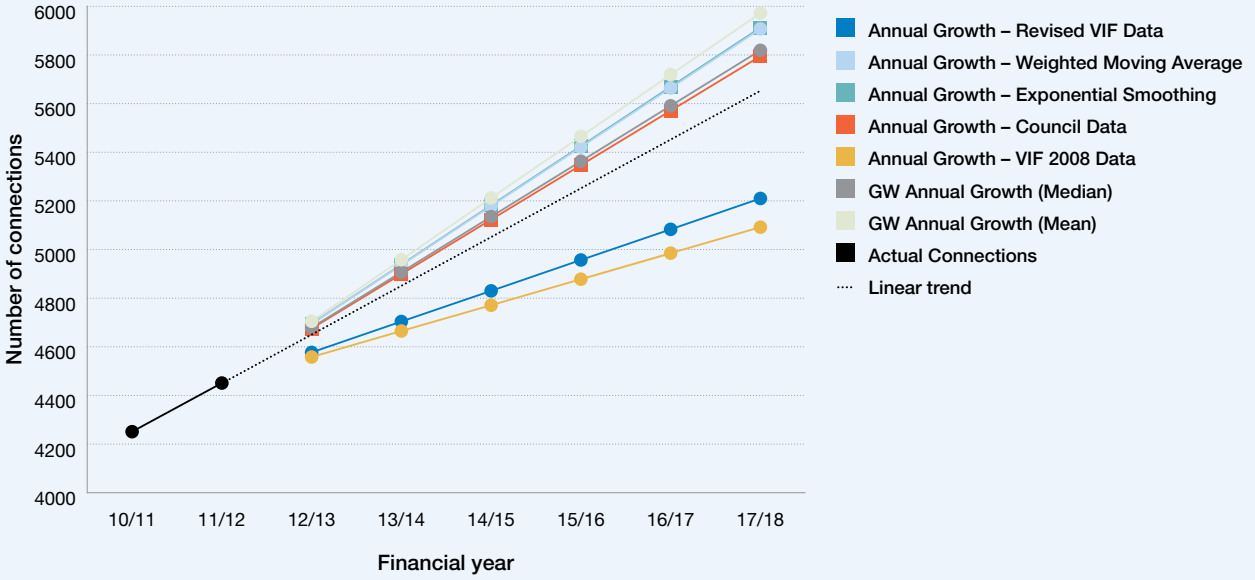
- Churchill
- Drouin
- Maffra
- Moe
- Morwell
- Newborough
- Sale
- Trafalgar
- Traralgon
- Warragul
- Yarragon

A variety of approaches can be used to determine the connections forecasts for the third regulatory period. Due to a relatively small sample size and volatility, Gippsland Water employed several different methods including statistical forecasting techniques. Presenting a connections growth based on statistical methods provided for verification of 'Victoria in Future' and council forecasts and an understanding of the possible range of future connections growth for the identified major towns. The approaches were:

- annualised median monthly growth from January 2010 to June 2012;
- annualised mean monthly growth from January 2010 to June 2012;
- Victoria In Future 2008 Forecast;
- revised Victoria In Future 2008 Forecast;
- council forecast (or five year average growth produced by the local councils when there is no forecast available);
- weighted moving average – different weights used for different towns based on the lowest mean absolute deviation (MAD); and
- exponential smoothing – different alpha values used for different towns based on the lowest MAD.

Figure 6.1 outlines this analysis for Drouin. Drouin is a major service town, located in West Gippsland and due to its close proximity to Melbourne and recent new developments; Drouin has been a growth 'hotspot' and has grown significantly in recent years.

Figure 6.1: Residential Water Connections – Drouin



It is interesting to note that revised Victoria in Future 2008 figures are slightly higher than the earlier Victoria in Future forecast for Drouin, indicating a higher growth than what was previously expected by the planning bodies.

Having completed this analysis for each of the towns noted above, Gippsland Water has elected to base all large town connections forecasts on mean growth rates. Mean growth rates reflected a good balance between recent high levels of connection growth, and longer term average growth in central Gippsland. Median growth rates were seen as too conservative at this stage to be adopted. Using mean growth rates, Warragul and Drouin are forecast to experience the highest number of new connections in residential water properties, with forecasts for average growth of 2.9% and 5.4% per annum respectively. Growth in Drouin in particular has been exceptionally strong, and connections are expected to continue to grow at similar rates during the forecast period. Growth in Traralgon is forecast at an average of 1.7% per annum in this plan, while growth in Sale is forecast at an average of 1.2% per annum.

Total average annual growth in residential water connections across the region is forecast at 1.83% per annum in this plan. This equates to 1,075 new residential connections per annum, and compares favourably with historical average connections growth outlined in Table 6.1. In fact, short term averages are well in excess of the average growth of 1,075 connections per annum used in this plan. Table 6.2 details the growth by town that makes up the 1,075 connections per annum, while Table 6.3 discloses total connections on a year by year basis.

Table 6.1: Average Annual Residential Water Connections Growth Rates (to June 2011)

Period	Growth Rate (no's)	Growth Rate
Last two years (2009/10 to 2010/11)	1,209	2.2%
Last three years (2008/09 to 2010/11)	1,232	2.3%
Last four years (2007/08 to 2010/11)	1,044	1.9%
Last five years (2006/07 to 2010/11)	1,062	2.0%

Table 6.2: Average Annual Residential Water Connections Growth By Town -Third Regulatory Period

Town	Growth (no's.)	Town	Growth (no's.)
Churchill	25	Drouin	254
Maffra	19	Moe	33
Morwell	51	Newborough	35
Sale	82	Trafalgar	40
Traralgon	202	Warragul	178
Yarragon	34	Small towns	122

Table 6.3: Total Residential Water Connections - Third Regulatory Period

Period	Total Connections
Forecast to June 2013	59,721
Forecast to June 2014	60,796
Forecast to June 2015	61,871
Forecast to June 2016	62,946
Forecast to June 2017	64,021
Forecast to June 2018	65,096

6.2.2 Changes In Residential Connections Forecasts from Draft Water Plan 3 Proposal

Since releasing the draft Water Plan 3 proposal, Gippsland Water has updated its connections growth modelling to include actuals to the end of June 2012. This additional six months of actual data has demonstrated a significant slowdown in residential connections growth since January 2012.

Gippsland Water has chosen not to adjust future forecasts, from July 2012 onward, downward at this stage. The starting position from July 2012 has however been revised down to reflect actual connections. Gippsland Water will continue to monitor actual growth and may elect to revise connections forecasts during the lead up to the ESC's Draft Decision and Final Decision, should the slowdown continue deep into 2012/13.

6.2.3 Water Connections – Non-residential

New connections for non-residential water properties are forecast to grow marginally during the period. Most notably, non-residential connections continue to grow at rates that are significantly below observed residential growth rates. Gippsland Water has estimated average annual growth in non-residential water property connections of 0.37% per annum.

Non-residential property growth has been forecast only for the major towns of Traralgon, Warragul, Sale and Moe. Warragul and Traralgon growth is forecast at 0.8% per annum, while growth in Sale and Moe has been set at less than 0.5% per annum. In total, 21 new non-residential properties are forecast annually.

Table 6.4: Total Non-residential Water Connections – Third Regulatory Period

Period	Total Connections
Forecast to June 2013	5,736
Forecast to June 2014	5,757
Forecast to June 2015	5,778
Forecast to June 2016	5,799
Forecast to June 2017	5,820
Forecast to June 2018	5,841

6.2.4 Wastewater Connections – Residential and Non-residential

Growth in wastewater connections is expected to be proportional to new water connections outlined above. Estimated average growth in residential wastewater property connections is 2.0% per annum. Mirroring the growth in water connections, the highest growth is expected to occur in the Drouin, Warragul, Traralgon and Sale areas.

The connection of new properties in the townships of Coongulla, Glenmaggie and Loch Sport, as part of the CTWSS Program, is planned to occur within the plan period. This Plan includes the connections for Coongulla, Glenmaggie and Loch Sport, as outlined in Table 6.5.

Table 6.5: Total Residential Wastewater Connections – Third Regulatory Period

Period	Total Connections	Comment
Forecast to June 2013	51,500	
Forecast to June 2014	52,839	Includes 300 - Coongulla/ Glenmaggie
Forecast to June 2015	53,888	
Forecast to June 2016	56,177	Includes 1250 - Loch Sport
Forecast to June 2017	57,466	Includes 250 - Loch Sport
Forecast to June 2018	58,595	Includes 90 - Loch Sport

New connections in non-residential wastewater properties are expected to be significantly less than residential growth during the plan period. Gippsland Water has estimated average growth in non- residential wastewater property connections of 0.42%.

Table 6.6: Total Non-Residential Wastewater Connections – Third Regulatory Period

Period	Total Connections
Forecast to June 2013	4,977
Forecast to June 2014	4,998
Forecast to June 2015	5,019
Forecast to June 2016	5,040
Forecast to June 2017	5,061
Forecast to June 2018	5,082

Since releasing the draft Water Plan 3 proposal, Gippsland Water has updated its wastewater connections growth modelling to include actuals to the end of June 2012. This additional six months of actual data has demonstrated a significant slowdown in residential connections growth since January 2012.

Gippsland Water has chosen not to adjust future forecasts, from July 2012 onward, down at this stage. The starting position from July 2012 has been revised down to reflect actual connections. Gippsland Water will continue to monitor actual growth and may elect to revise connections forecasts during the lead up to the ESC's Draft Decision and Final Decision, should the slowdown continue deep into 2012/13.

6.3 WATER CONSUMPTION FORECASTS

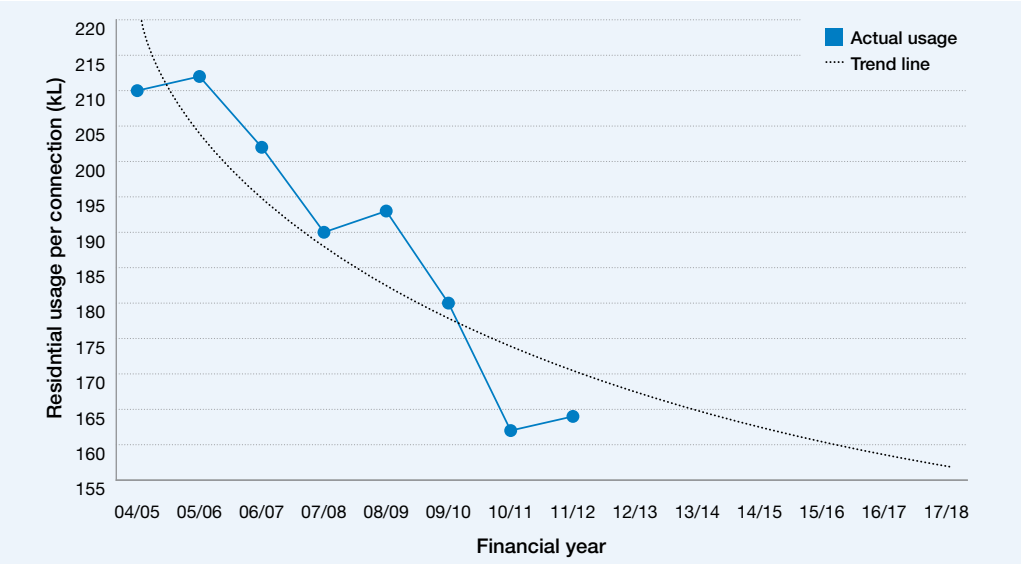
6.3.1 Actual And Forecast Demand – Residential

For the third regulatory period, Gippsland Water is required to develop residential consumption forecasts for the period to June 2018. This task is set against a backdrop of some of the most volatile consumption patterns seen in many years in the central Gippsland region. The methodology behind Gippsland Water's selection of a residential consumption forecast for the third regulatory period is set out below.

a) Volatility of historical residential consumption since July 2004

The following figure depicts average residential consumption per connection since 2004/05. It also includes a logarithmic trend line indicating likely future consumption levels, given this pattern of actual and forecast usage over the eight year period.

Figure 6.2: Historical Residential Usage



The trend line implies that consumption will continue to fall, albeit at a reduced rate, during the third regulatory period. Analysis of the trend line indicates future predictions from 168 kilolitre (kL) (2012/13) to 157 kL (2017/18).

b) Historical residential consumption – significant events since July 2004

The figure above however, does not tell the full story. There are several reasons why historical usage in the region may not be the most accurate guide to future usage. From a Gippsland Water perspective, several events have had a significant impact on water consumption over this period. As such, these events have the propensity to distort future usage depicted in the trend line above. These events include:

- 2006/07 year – stage 3 water restrictions in place across most regions (January – June 2007), reduced water consumption across all major towns;
- 2007/08 year – stage 3 water restrictions in place across most regions (until August 2007), combined with stronger rainfall reduced water consumption across all major towns. No post restriction bounce back in water consumption evident;
- 2008/09 year – significant bushfire threats across large areas of Gippsland Water's region increased consumption dramatically in February 2009;
- 2008/09 and 2009/10 – significant increases in the cost of water (30% and 28% respectively), reduced consumption (elasticity effect). Alternatively, could the reduction be attributed to the effects of a return to more average annual rainfall across the region? Perhaps a combination of the two is most likely;
- 2010/11 year – recorded rainfall some 30-40% higher than the eight year average in the Latrobe Valley and Warragul areas results in the lowest average annual residential consumption figure recorded by Gippsland Water. A reduction of 24% from the consumption level of 2005/06; and
- 2011/12 year – recorded rainfall some 30-50% higher than the eight year average in the Latrobe Valley, Warragul and Sale areas results in the second lowest average annual residential consumption figure recorded by Gippsland Water.

c) Amending historical residential consumption to develop a new forecast trend line

Given the events outlined above and the potential for distortion of future trends, how should Gippsland Water project future average residential consumption?

Any amendment to actual recorded usage is a subjective process, with obvious limitations. On the other hand, a reasonable approach would provide a second trend line to compare with the initial 'actual usage' trend line. More importantly, when combined, the two trend lines may provide a range within which Gippsland Water could expect future residential consumption forecasts to fall. The 'actual usage' trend line in figure 6.2 can be used as the lower boundary for any future forecast.

Gippsland Water has determined that a reasonable approach would be to assume that if the events outlined above had not impacted usage patterns, the corporation would have seen consumption from 2008/09 reduce by 2% annually. These revisions to actual consumption are highlighted in the amended usage column in Table 6.7 below.

Table 6.7: Comparing Residential Actual Usage And Amended Usage (kL)

Year	Actual Usage	Amended Usage
04/05	210	210
05/06	212	212
06/07	202	202
07/08	190	190
08/09	193	186.2
09/10	180	182.5
10/11	162	178.9
11/12	164	175.3

But why set this reduction at 2%, particularly as this is far lower than the 5.9% reduction recorded between 2006/07 and 2007/08? Gippsland Water believes that this level of reduction cannot be sustained, and was influenced by three significant factors:

- water restrictions were still in place until October 2007 across the region;
- Gippsland Water customers continued to heed the water saving messages meant for metropolitan Melbourne consumers who remained on level 3 restrictions during this period; and
- rainfall records show a strong increase in the 2007/08 year.

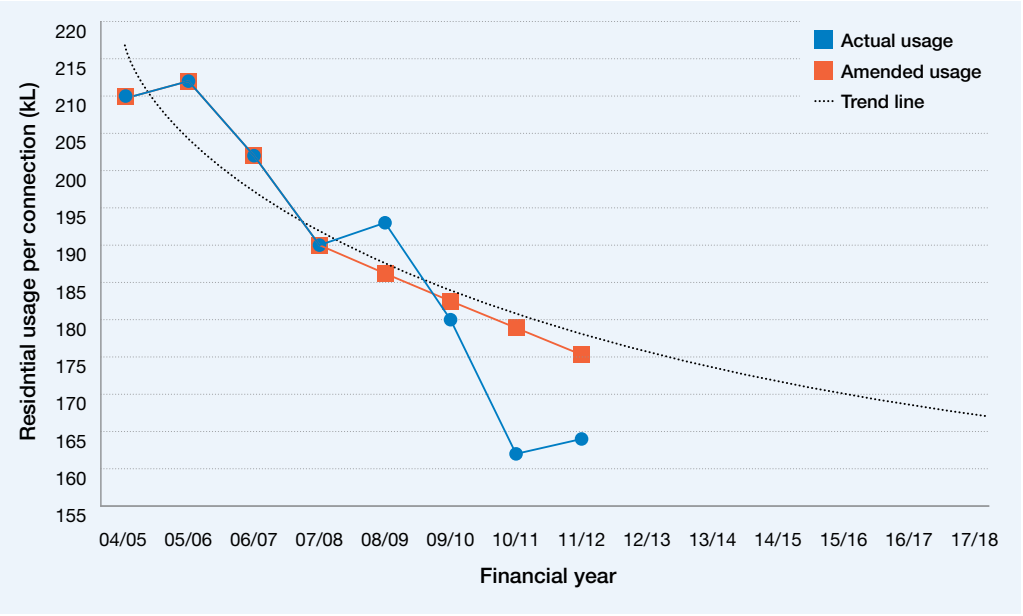
While Gippsland Water can claim no direct correlation between the 2% reduction proposed and any water price elasticity research during the Water Plan 2 process, consultants appointed by the ESC (PriceWaterhouseCoopers, 2008) indicated that water price elasticity (combined indoor/outdoor) of 0.7% was reasonable for a 10% price increase. Gippsland Water's 30% and 28% water tariff price increases in 2008/09 and 2009/10 equate to a circa 2% reduction per annum on that basis. In addition, Gippsland Water's 8% water tariff price increases in 2010/11 and 2011/12 equate to a circa 1% reduction.

In determining a 2% reduction (for all years) is a reasonable approach, it should also be noted that Gippsland Water's customers have also embraced water saving initiatives. While Gippsland Water is not in a position to quantify the impact of water efficiency as consumers moved towards water efficient appliances, or other issues such as expected reductions in average household size, these issues will also have influenced actual consumption during the period.

d) Replotting amended historical residential consumption to develop a new forecast trend line

Figure 6.3 below depicts both the real usage and the 'amended usage' shown in Table 6.7. A trend line for the amended historical forecast has also been determined. As discussed above, this new trend line can be used as the upper boundary for any future forecast.

Figure 6.3: Historical Residential Usage And Amended Usage



e) Deriving the upper and lower boundaries for final Water Plan 3 proposal forecasts

When the derived trend lines are combined, they provide an upper and lower boundary, providing some guidance around the potential range in which forecasts should fall moving forward. These boundaries can be plotted and compared to proposed forecasts for the third regulatory period by Gippsland Water. The trend lines are represented by the values outlined in Table 6.8.

Table 6.8: Upper And Lower Boundaries (kL)

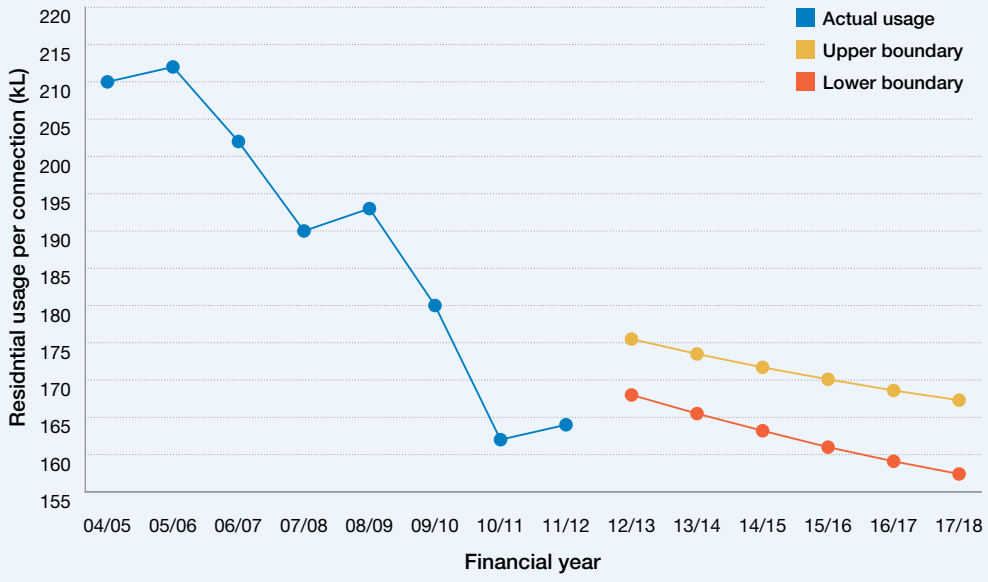
Year	Actual Usage Boundary	Amended Usage Boundary	
	Lower	Upper	Range
12/13	168	175.5	7.5
13/14	165.5	173.5	8
14/15	163.2	171.7	8.5
15/16	161	170.1	9.1
16/17	159.1	168.6	9.5
17/18	157.4	167.3	9.9

f) Plotting upper and lower boundaries with historical actual usage

The upper and lower boundaries have been plotted together with historical actual usage volumes since 2004/05 to provide a guide as to how realistic the boundaries are in relation to prior consumption.

In this instance the boundaries appear reasonable, as demonstrated in figure 6.4 below. The boundaries maintain an ongoing reduction in consumption, without reproducing the steep declines in consumption seen in the actuals data to the left of figure 6.4.

Figure 6.4: Historical Residential Usage And Upper And Lower Boundaries



g) Approaches for establishing final Water Plan 3 proposal forecasts for residential usage

A variety of approaches can be used to determine forecasts for the third regulatory period. No consideration was given to using mean and median calculations given both the small data sample size and the significant volatility evident in the actual historical data. Gippsland Water has chosen three different approaches to test against the upper and lower boundaries derived above. The three approaches are:

- A three year weighted moving average forecast (WMA) based on previous actual consumption;
- A three year weighted moving average forecast based on amended consumption;
  - In both cases the weighting moving average has been skewed toward the most current period (60%) while years two and three each attract a 20% weighting. This skewing has been selected on the basis that it produces the lowest MAD; and
- A forecast based on an annual % reduction from current amended consumption;
  - In this case a 2% reduction per annum across the third regulatory period, to match the assumption used to derive the upper boundary was considered excessive, given Gippsland Water expects any real increases in water tariffs during the third regulatory period to be minor in nature.
  - As such a 1% reduction per annum across the third regulatory period has been adopted initially. While Gippsland Water could argue that this ongoing 1% reduction comprises part 'water efficiency gains' and part 'water price elasticity', there is no definitive basis for making any such assertion.

Forecasts for the third regulatory period have been determined for each of the three approaches outlined above. These forecasts are outlined in table 6.9.

Table 6.9: Potential Forecasts For Residential Consumption (kL)

Year	WMA Forecast on Actual Usage	WMA Forecast on Amended Usage	1% Annual Reduction In Amended Usage
12/13	166.8	177.5	173.5
13/14	165.3	177.3	171.8
14/15	165.3	176.9	170.1
15/16	165.6	177.1	168.4
16/17	165.5	177.1	166.7
17/18	165.5	177.1	165.0

These forecasts have then been compared with the upper and lower boundaries to determine which, if any forecasts, most closely fit within the boundaries identified. The figure below outlines the three forecasts, and includes historical actual usage, to allow a comparison with previous levels of consumption.

Figure 6.5: Potential Forecasts And Boundaries - With Actuals

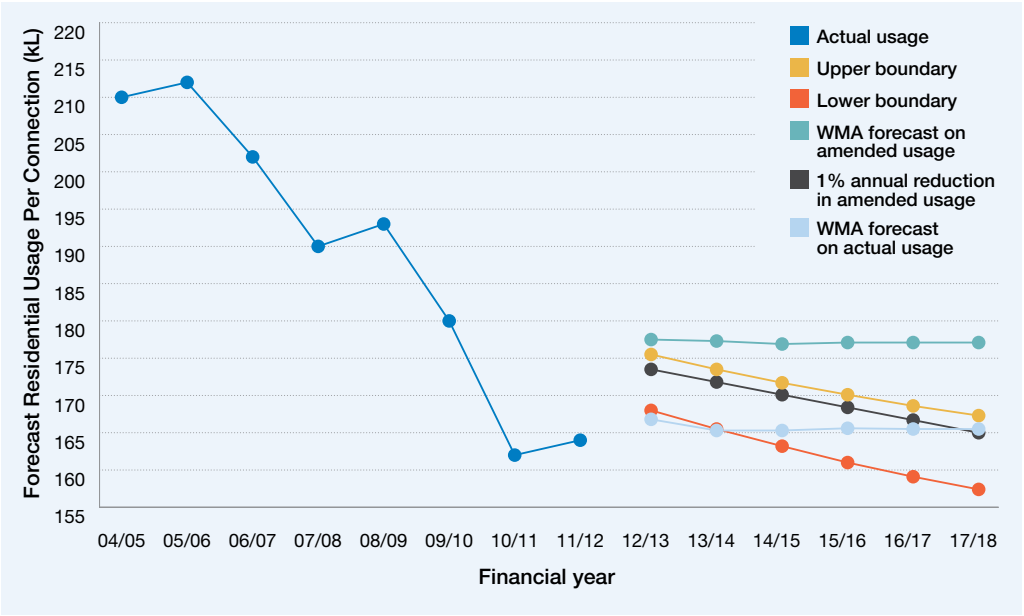
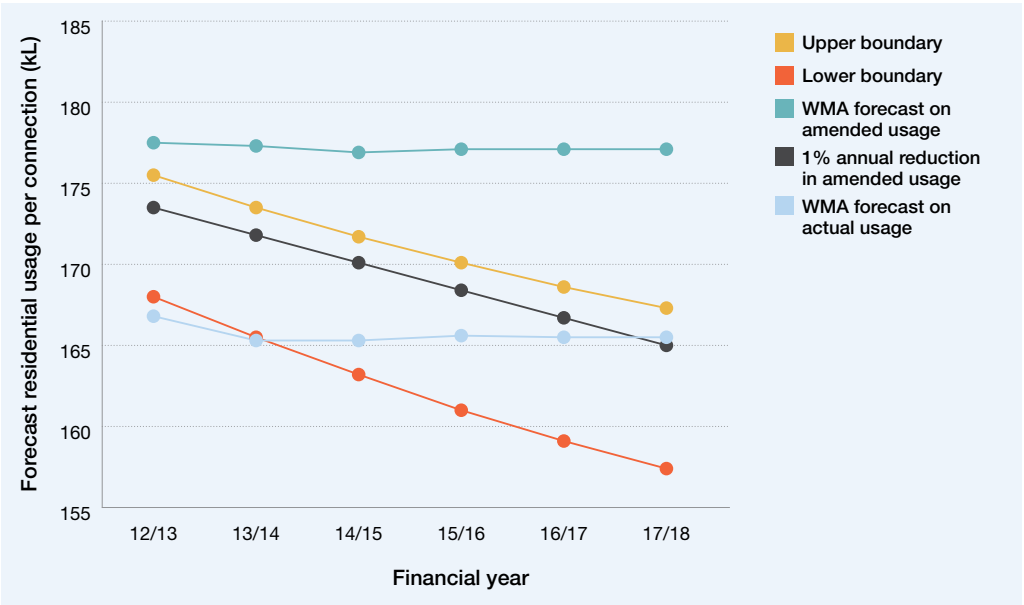


Figure 6.6 eliminates the historical actuals data and focuses on the three forecast approaches and how each forecast fits within the upper and lower boundaries.

Figure 6.6: Potential Residential Forecasts And Boundaries - Without Actuals



What is clear from figure 6.6 is that the three year weighted moving average forecast based on previous actual consumption starts below the lower boundary, and during the period (from 2014/15 onward) it moves inside the upper boundary.

The three year weighted moving average forecast based on previous amended consumption does not commence the forecast period within the upper boundary, let alone make any advance on the upper boundary during the forecast period.

In summary, both forecasts based on weighted moving averages tend to be more 'straight line' in nature, with very small ranges between minimum and maximum values over the forecast period.

Of the three approaches tested, only the forecast based on an annual 1% reduction from current amended consumption both commences within the upper and lower boundaries, and remains within these boundaries for the entire forecast period.

The forecast based on an annual 1% reduction from current amended consumption also has a number of additional attributes worth noting, namely:

- the forecast remains closely aligned with the upper boundary for each year of the forecast period; and
- in the third regulatory period, the annual forecast value never reaches the current record annual low consumption record of 162 kL per annum.

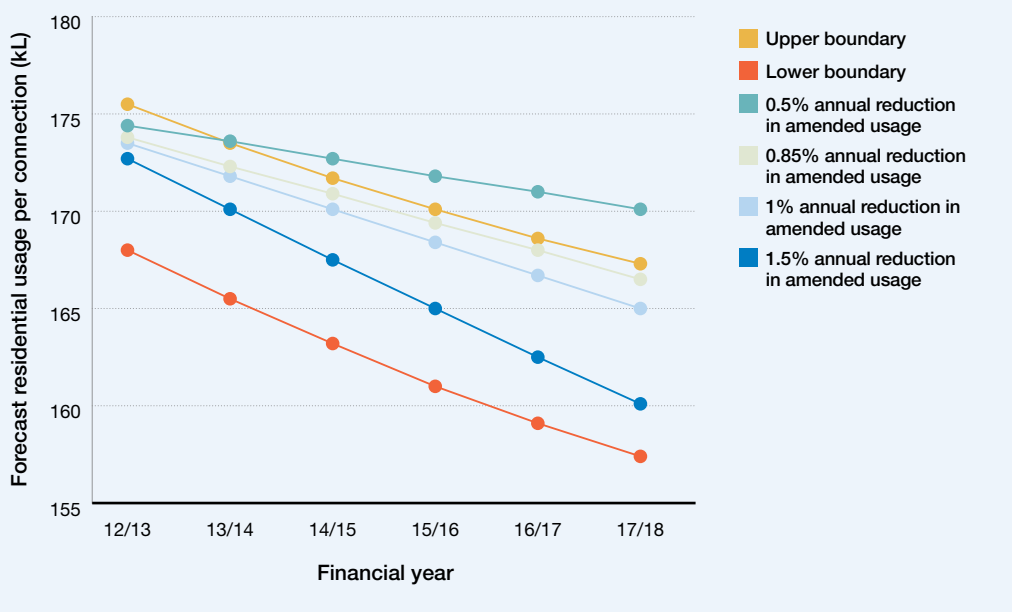
h) Alternative annual reductions for 'best fit' with upper and lower boundaries

Having determined that the forecast based on amended consumption, with an annual 1% reduction best fits within the upper and lower boundaries, two other considerations remain:

- what annual percentage movements are 'best fit' at the upper and lower boundaries; and
- which annual percentage movement should Gippsland Water base third regulatory period forecasts upon?

The following figure displays the lines of 'best fit' for the upper and lower boundaries, as well as the original 1% per annum reduction forecast. By deduction, an annual 0.85% reduction has a strong correlation with the upper boundary. Given the high starting point, no percentage reduction strongly correlates with the lower boundary. A reduction of 1.5% per annum delivers the forecast closest to the lower boundary at the end of the third regulatory period.

Figure 6.7: Lines Of 'Best Fit'



The actual values determined by deduction for each forecast are outlined in the table opposite.

Table 6.10: 'Best Fit' Potential Residential Forecasts And Boundaries (kL)

Year	0.5% Annual Reduction In Amended Usage	0.85% Annual Reduction In Amended Usage	1% Annual Reduction In Amended Usage	1.5% Annual Reduction In Amended Usage
12/13	174.4	173.8	173.5	172.7
13/14	173.6	172.3	171.8	170.1
14/15	172.7	170.9	170.1	167.5
15/16	171.8	169.4	168.4	165.0
16/17	171.0	168.0	166.7	162.5
17/18	170.1	166.5	165.0	160.1

i) Selecting a forecast for the final Water Plan 3 proposal

During the Water Plan 2 ESC review process there was a clear emphasis on reducing the impact on the future revenue requirement for the corporation. From a volumetric consumption forecasting perspective, this is achieved by selecting the forecast that generates the highest average consumption per connection; or in this instance, within the range established by Gippsland Water, the forecast that rests as close as possible to the upper boundary.

As depicted above, that forecast is based on an annual 0.85% reduction from current amended consumption. That forecast also has a number of additional attributes worth noting, namely:

- in the third regulatory period, the annual forecast value never reaches the current record annual low consumption record of 162 kL per annum; and
- over the third regulatory period, average consumption sits at 170.2 kL. This is well above the recent 'rain affected' annual average consumption of 162 kL and 164 kL per annum (table 6.7).

Given the adoption of upper and lower boundaries which represent reasonable forecasts in a volatile residential consumption environment, Gippsland Water has elected to formulate final Water Plan 3 proposal forecasts on the 0.85% per annum reduction in consumption, which has been shown to be the line of 'best fit' with the upper boundary.

6.3.2 Actual And Forecast Demand – Non-residential

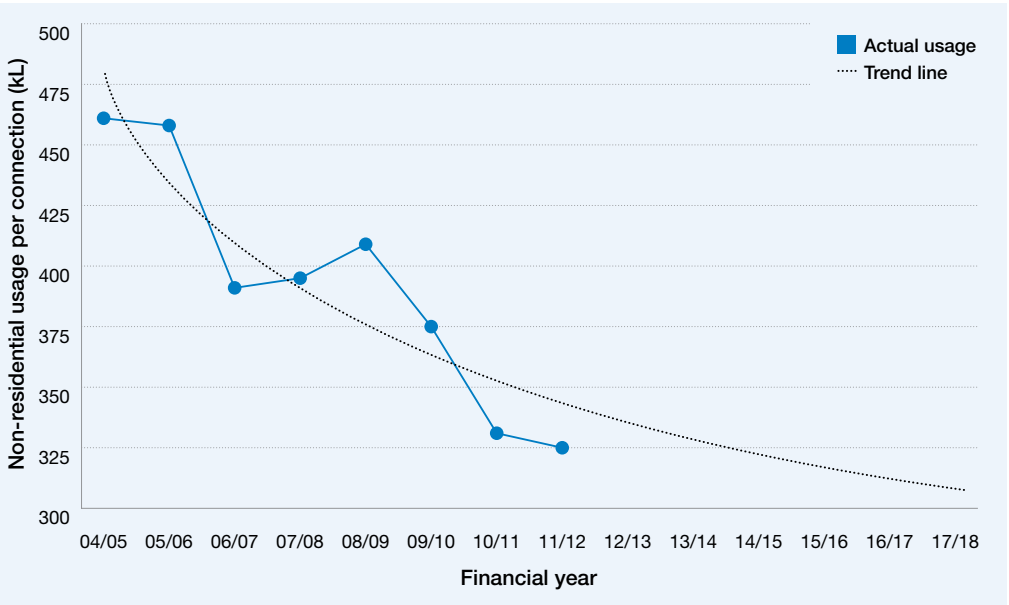
Gippsland Water is required to develop non-residential consumption forecasts for the period to June 2018. Like forecasts for residential consumption, this task is set against a backdrop of some of the most volatile consumption patterns seen in many years in the central Gippsland region.

The methodology behind Gippsland Water's selection of a non-residential consumption forecast for the third regulatory period is set out below. Given Gippsland Water's process for developing non-residential consumption was very similar to the residential consumption above, only major variations from the residential consumption process are highlighted below.

a) Volatility of historical non-residential consumption since July 2004

The following figure depicts average non-residential consumption per connection since 2004/05. It also includes a logarithmic trend line indicating likely future consumption levels, given this pattern of actual and forecast usage over the eight year period.

Figure 6.8: Historical Non-residential Usage



The trend line implies that consumption will continue to fall, albeit at a reduced rate, during the third regulatory period. Analysis of the trend line indicates future predictions from 335 kL (2012/13) to 307 kL (2017/18).

b) Historical non-residential consumption – significant events since July 2004

For the same reasons as outlined above for residential consumption, historical usage in the region may not be the most accurate guide to future usage.

c) Why does rainfall impact non-residential consumption?

Non-residential consumption includes far more than the local businesses seen in the main streets of local towns. A significant proportion of non-residential consumption is derived from rainfall impacted customers, including local councils (parks and gardens) and local farmers, where farming activities rely on potable water supply to water cattle, sheep and other stock.

d) Amending historical non-residential consumption to develop a new forecast trend line

Given the events outlined above and the potential for distortion of future trends, how should Gippsland Water project future average non-residential consumption?

Any amendment to actual recorded usage is a subjective process, with obvious limitations. On the other hand, a reasonable approach would provide a second trend line to compare with the initial 'actual usage' trend line. More importantly, when combined, the two trend lines may provide a range within which Gippsland Water could expect future non-residential consumption forecasts to fall. The 'actual usage' trend line in figure 6.8 can be used as the lower boundary for any future forecast.

Gippsland Water has determined that a reasonable approach would be to assume that if the events outlined above had not impacted usage patterns, the corporation would have seen consumption from 2008/09 reduce by 1.81% annually. This value is the median change in consumption over the period from 2004/05. These revisions to actual consumption are highlighted in the amended usage column in Table 6.11 below.

Table 6.11: Comparing Non-residential Actual Usage And Amended Usage (kL)

Year	Actual Usage	Amended Usage (1.81%) Median	Amended Usage (Average)
04/05	461	461	461
05/06	458	458	458
06/07	391	391	391
07/08	395	395	395
08/09	409	388	377
09/10	375	381	359
10/11	331	374	342
11/12	325	367	326

The table also includes an amended usage column based on the average annual reduction over the period. At 4.65%, this average reduction is considered to be outside the bounds of any reasonableness test.

Gippsland Water notes that emulating the '2% reduction' approach applied to residential usage (based on price elasticity) was not followed for non-residential consumption. The rationale for this was simply that the elasticity data referred to was for residential properties, not non-residential properties.

To avoid repetition, steps in the process for the non-residential forecast process in relation to:

- deriving the upper and lower boundaries for final Water Plan 3 proposal forecasts;
- plotting upper and lower boundaries with historical actual usage; and
- approaches for establishing final Water Plan 3 proposal forecasts for residential usage

have not been repeated given they are very similar to the process described above for residential consumption.

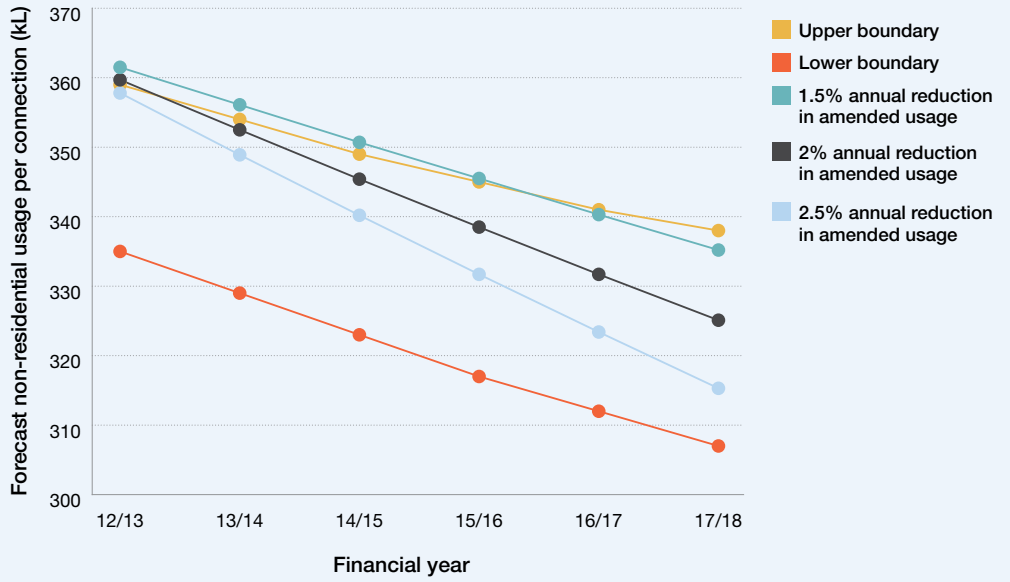
e) Alternative annual reductions for 'best fit' with upper and lower boundaries

Having determined that the non-residential consumption forecast based on amended consumption, with an annual 2% reduction best fits with in the upper and lower boundaries, two other considerations remain:

- what annual percentage movements are 'best fit' at the upper and lower boundaries?; and
- which annual percentage movement should Gippsland Water base third regulatory forecasts upon?

The following figure displays the lines of 'best fit' for the upper and lower boundaries, as well as the original 2% per annum reduction forecast. By deduction, an annual 1.5% reduction has a strong correlation with the upper boundary. Given the high starting point, no percentage reduction strongly correlates with the lower boundary. A reduction of 2.5% per annum delivers the forecast closest to the lower boundary at the end of the third regulatory period.

Figure 6.9: Potential Non-Residential Forecasts And Boundaries - Without Actuals



The actual values determined by deduction for each forecast are outlined in the table below.

Table 6.12: 'Best Fit' Potential Non-residential Forecasts And Boundaries (kL)

Year	1.5% Annual Reduction In Amended Usage	2% Annual Reduction In Amended Usage	2.5% Annual Reduction In Amended Usage
12/13	361.5	359.7	357.8
13/14	356.1	352.5	348.9
14/15	350.7	345.4	340.2
15/16	345.5	338.5	331.7
16/17	340.3	331.7	323.4
17/18	335.2	325.1	315.3

f) Selecting a non-residential forecast for the final Water Plan 3 proposal

During the Water Plan 2 ESC review process there was a clear emphasis on reducing the impact on the future revenue requirement for the corporation. From a volumetric consumption forecasting perspective, this is achieved by selecting the forecast that generates the highest average consumption per connection; or in this instance, within the range established by Gippsland Water, the forecast that rests as close as possible to the upper boundary. As noted above, that forecast is based on an annual 1.5% reduction from current amended consumption.

Given the adoption of upper and lower boundaries which represent reasonable forecasts in a volatile residential consumption environment, Gippsland Water has elected to formulate final Water Plan 3 proposal forecasts on the 1.5% per annum reduction in consumption, which has been shown to be the line of 'best fit' with the upper boundary.

6.3.3 Summary Of Outcomes – Residential And Non-residential Forecasts

Table 6.13 below summarises the outcomes used in the final Water Plan 3 proposal for connections growth and volumetric consumption, based on the discussion presented above.

Table 6.13: Summary Of Residential And Non-residential Demand Outcomes

	Third regulatory period					
Service	**12/13**	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**
Water connections						
Residential	59,721	60,796	61,871	62,946	64,021	65,096
Non-residential	5,736	5,757	5,778	5,799	5,820	5,841
Total	**65,457**	**66,553**	**67,649**	**68,745**	**69,841**	**70,937**
Wastewater connections						
Residential	51,500	52,839	53,888	56,177	57,466	58,595
Non-residential	4,977	4,998	5,019	5,040	5,061	5,082
Total	**56,477**	**57,837**	**58,907**	**61,217**	**62,527**	**63,677**
Water consumption (average annual)						
Residential (kL)	173.8	172.3	170.9	169.4	168	166.5
Non-residential (kL)	361.5	356.1	350.7	345.5	340.3	335.2
Water consumption (total annual)						
Residential (kL)1	10,283,448	10,377,570	10,469,349	10,558,817	10,646,009	10,730,955
Non-residential (kL)1	2,069,143	2,044,965	2,021,046	1,997,385	1,973,979	1,950,826
Total Consumption (kL)	**12,352,591**	**12,422,534**	**12,490,395**	**12,556,203**	**12,619,988**	**12,681,781**

Note 1: Total annual consumption is calculated using 'mid-point' connections, rather than connections at the end of a period.

6.4 FIRE SERVICE CONNECTIONS FORECAST

Fire service connections are not expected to grow during the third regulatory period. Table 6.14 outlines the number of fire connections by type provided by Gippsland Water.

Table 6.14: Fire Service Connections

Size of Service	Current – June 2012	Forecast – June 2018
20mm	148	148
25mm	83	83
32mm	55	55
40mm	39	39
50mm	412	412
75mm	11	11
80mm	504	504
100mm	301	301
150mm	26	26
Total Connections	**1,579**	**1,579**

6.5 MAJOR CUSTOMERS FORECAST

Unique to Gippsland Water is the customer profile that the corporation services. Approximately 70% of the water supplied and 75% of wastewater collected, is from major customers. In contrast, a typical Victorian urban water corporation supplies in excess of 50% of the water supplied to residential customers. These major customers are of both state and national importance and include a pulp and paper manufacturer, five brown coal fired power stations and the oil and gas industry.

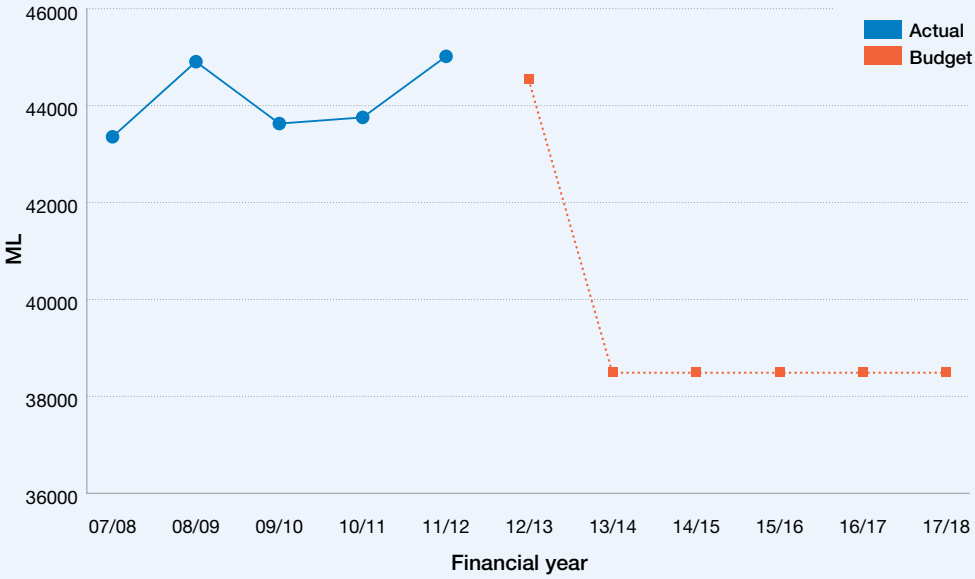
Major customer water consumption and wastewater volumes vary widely between the customers involved. Some are major contributors to water consumption, while others are major contributors to wastewater volumes. Gippsland Water's major customer forecasts for the third regulatory period have been developed on a customer by customer basis.

In July 2011, the Federal Government announced its plan to implement a voluntary Contract for Closure Program as part of the Clean Energy Future Package. In Dec 2011, the Federal Government confirmed that five power generators across Australia were 'invited to proceed to the negotiation stage'.

This invitation was extended to three of Gippsland Water's major customers - International Power Hazelwood, Energy Brix Australia and TRUenergy Yallourn. The Federal Government intended to enter into any Contracts for Closure by June 2012. While the Federal Government's preferred closure timeframe was from July 2016 to June 2020, proposals for closure prior to July 2016 were to be considered. In early September 2012, the Federal Government announced that it had abandoned the Contract for Closure Program.

Figure 6.10 below details both the historical trend since 2007/08 for major customers' water consumption and Gippsland Water's forecast for the third regulatory period. Forecast major customer water consumption was expected to remain relatively stable during 2012/13, before a significant reduction occurred from 2013/14 onward.

Figure 6.10: Major Customer Water Consumption



The significant reduction outlined in major customer water consumption from 2013/14 reflected Gippsland Water's concern that at least one of its major customers would be successful in their bid for closure in the short-term, rather than by 2020.

In late June 2012 the Federal Government announced a $50M bailout package for Energy Brix Australia in a bid to maintain briquette supplies for 50 businesses that employ 2,500 people. The two-year restructuring package for Energy Brix Australia will allow the company to maintain briquette production while regional businesses that rely on its brown coal briquettes make the transition to a cleaner fuel source. The bailout package does not provide support for the power production component of the company's operations. As of July 2012, Energy Brix Australia downsized operations to 1 boiler and 1 turbine (from 5 turbines) which reduced their overall capacity significantly.

Reductions in water consumption are expected to be significant, and mean Gippsland Water's forecast for 2012/13 is no longer accurate. Despite the abandonment of the Contract for Closure Program, Gippsland Water considers that forecasts for the third regulatory period, from 2013/14 onward remain accurate.

6.6 TRADE WASTE CUSTOMER FORECASTS

Trade waste is any liquid waste generated by an industry, business, trade or manufacturing process other than residential waste, which is acceptable for discharge to sewer. Residential waste is water from toilets, sinks, showers, basins and washing machines normally discharged from households.

Under the Water Act 1989, all non-residential and industrial properties that discharge trade waste are required to have a written trade waste agreement. The agreement outlines the conditions under which Gippsland Water will consent to the discharge of trade waste to our sewerage reticulation systems.

A trade waste fee is levied on these customers as grease or oil interceptors are not sophisticated enough to remove all the pollutants in wastewater. Further treatment is therefore required downstream at our wastewater treatment plants. Trade waste fees help pay for this treatment and periodic inspections of interceptors.

Gippsland Water has several hundred trade waste customers. In recent years Gippsland Water has invested resources to identify those businesses which are not registered as trade waste customers. The identification process entails a detailed physical verification of each town within the Gippsland Water region that has wastewater services available. Each customer has been personally contacted by Gippsland Water's trade waste officers to ensure compliance.

Trade waste connections are not expected to grow during the third regulatory period. Table 6.15 outlines the number of trade waste connections serviced by Gippsland Water.

Table 6.15: Trade Waste Connections

Size of Service	Current – June 2012	Forecast – June 2018
Total Connections	836	836

6.7 NEW CUSTOMER CONTRIBUTIONS

When land is subdivided, or an existing property is redeveloped, the demand on the water and wastewater reticulation systems may increase. Storage capacities and treatment works may have to be enlarged to meet this demand. New customer contributions for headworks (water) and outfall/disposal (wastewater) recover part of the cost of constructing permanent works such as storages, pumping stations, treatment plants, water distribution mains and outfall sewers.

Table 6.16 outlines the new connections forecast in this plan. These connections will form the basis of revenue projections for new customer contributions.

Table 6.16: New Customer Contributions

		Third regulatory period				
Service	Connection type	13/14	14/15	15/16	16/17	17/18
Water	Residential	1,075	1,075	1,075	1,075	1,075
Water	Non-residential	21	21	21	21	21
Wastewater	Residential	1,039	1,039	1,039	1,039	1,039
Wastewater	Non-residential	21	21	21	21	21

The new customer contributions outlined above exclude all Coongulla/Glenmaggie and Loch Sport Sewerage Scheme connections. Participants in these schemes are not required to pay new customer contributions.

Chapter 7 (section 7.6.6) contains a discussion in relation to new customer contributions and a new regime which the ESC expects water corporations to adopt. As outlined in chapter 7, Gippsland Water has elected to base this final Water Plan 3 proposal on the existing NCC regime. Gippsland Water will provide an updated proposal to the ESC by early December 2012, once the effects of the new regime have been determined accurately.

SECTION 7

Tariff increases proposed in this final Water Plan 3 proposal are now lower than those outlined in the draft Water Plan 3 proposal.

PERIOD, PRICE CONTROL AND TARIFFS

7.1 LENGTH OF REGULATORY PERIOD

The ESC has determined that the minimum regulatory period is five years. Water corporations can seek periods in excess of five years, but must sufficiently justify proposals when doing so. Gippsland Water is seeking to maintain a regulatory period of five years.

7.2 FORM OF PRICE CONTROL

The ESC has a number of options for approving prices. The ESC can approve a price or revenue cap where a specified price path or level of revenue is fixed for the Water Plan period. The form of price control provides incentives for water corporations when considering how to implement pricing strategy. The types of price control include:

- weighted average price caps (or tariff basket);
- weighted average revenue (or revenue yield);
- individual price caps;
- revenue cap; or
- any combination of the above in a hybrid model.

Both the tariff basket and individual price caps provide greater certainty for customers about future prices compared to revenue cap approaches which may result in price volatility. A tariff basket or individual price caps are relatively simple administratively and provide flexibility for corporations to adapt their structures.

Gippsland Water adopted the individual price cap approach to price control for the first and second regulatory periods. After comparing the benefits, particularly to customers, of this price cap approach to the tariff basket approach, Gippsland Water believes that price caps will again provide greater certainty for customers, and has adopted this approach for the third regulatory period.

Gippsland Water believes that this form of price control meets WIRO requirements because, among other things, it:

- provides for a sustainable revenue stream to the regulated entity that nonetheless does not reflect monopoly rents or inefficient expenditure by the regulated entity;
- allows the regulated entity to recover its operational, maintenance and administrative costs, expenditure on renewing and rehabilitating existing assets and a rate of return on assets;
- provides appropriate incentives and signals to customers about the sustainable use of Victoria's water resources by reference to the costs of providing prescribed services;
- takes into account the interests of customers of the regulated entity, including low income and vulnerable customers;
- enables customers or potential customers of the regulated entity to readily understand the prices charged by the regulated entity for prescribed services, or the manner in which such prices are to be calculated or otherwise determined; and
- proposes the same tariff structure proposed for prescribed services as the second regulatory period.

7.3 TARIFF STRUCTURES

The ESC has set out a number of proposed pricing principles (refer Essential Services Commission 2011, 2013 Water Price Review – Tariff Issues Paper, July 2011).

In relation to retail water tariff structures, the ESC proposed that a two part tariff comprising a fixed charge and a volumetric component is preferred to recover a water business's revenue requirement from each tariff class. The current Gippsland Water tariff structure for water is a two part tariff, comprising a fixed service fee, and a volumetric charge. Gippsland Water proposes to continue with this structure in the third regulatory period.

In relation to retail wastewater tariff structures, the ESC proposed that the tariff structure should reflect the cost structure, and may comprise a one or two part tariff (all fixed, all volumetric or a fixed charge and a volumetric component). The current Gippsland Water tariff structure for wastewater comprises a fixed service fee for residential customers, while non-residential customers are charged both a fixed service fee and a volumetric charge for wastewater. Gippsland Water proposes to continue with this structure in the third regulatory period.

Indeed, when discussed on a limited number of occasions at recent Water Plan 3 community consultation meetings, customers again indicated that there is no simple way to equitably introduce a residential volumetric wastewater tariff when meters do not exist to record volumes of wastewater released from residential premises.

While Gippsland Water intends to continue with a fixed wastewater tariff for residential customers, customer feedback on this issue, specifically that the fixed tariff is too high has been noted. In developing this Plan, every effort has been made to reduce the need for future tariff increases. In addition, Gippsland Water was able to reduce the real fixed wastewater tariff increase approved by the ESC for 2012/13, after introducing a new Quality Based Trade Waste tariff during the second regulatory period.

Gippsland Water adopts a uniform tariff across all the towns serviced by treated water and wastewater reticulation systems within the region. Reviews undertaken by Gippsland Water clearly demonstrate that any approach to move to a non-uniform tariff would have a significant impact on customers who rely upon Gippsland Water's smaller reticulation systems. In these instances, the tariffs required to recover operating and capital costs would significantly exceed the levels established under a uniform tariff.

7.4 TARIFF CHOICE

During the consideration of issues to take to customers during the draft Water Plan 3 proposal consultation period, Gippsland Water elected not to seek customer input in relation to tariff choice.

Gippsland Water went to considerable lengths during the consultation phase for the second regulatory period to consult with customers in relation to issues such as 'inclining block' water tariffs and the introduction of volumetric wastewater tariffs for residential customers. Neither issue was well received during the consultation in 2007. From Gippsland Water's perspective, nothing has changed since to alter those outcomes.

During customer consultations for the draft Water Plan 3 proposal, perhaps the only issue raised by customers from time-to-time was whether a 'discount' could be made available for the 'timely payment of water and wastewater bills'. Customers pointed out that in other service sectors such as electricity, gas and telecommunications, the providers in many cases provided a discount which rewarded prompt payment.

Gippsland Water indicated to customers that it understood that a discount would reward prompt payment. However, unlike private corporations, Gippsland Water does not set out to make significant profits, and cannot trade-off some of this profit for prompt payment. In fact, to allow a discount to be paid under current arrangements, Gippsland Water would need to estimate the total discount to be paid each year, and ensure overall tariff revenue was offset by this amount, rather defeating the purpose in the first place and effectively price shifting between customers.

7.5 CONSULTATION ON PROPOSED PRICE PATHS

During the draft Water Plan 3 consultation process, Gippsland Water sought public feedback on two different tariff options. Option one, known as the 'upfront' option, required a small 'CPI plus' increase in 2013/14, followed by 'CPI only' increases in the next four years of the third regulatory period. Option two, based on an annual increase required a smaller 'CPI plus' increase which would occur every year for all five years of the third regulatory period.

Gippsland Water developed a Proposed Tariffs Fact Sheet that outlined the different approaches to allow customers to consider which option they preferred. The fact sheet detailed expected tariffs and included examples of how each option would impact typical households during the third regulatory period.

In addition, Gippsland Water's Share Your View website included both an information sheet summarising the more detailed fact sheet, and an opportunity to complete a survey that allowed participants to select either option one or option two.

Despite total attendances of 217 people at formal presentations and strong interest in the Share Your View website, the take-up rate in relation to the Share Your View surveys was low. Share Your View survey results for the Proposed Tariffs Survey were as follows:

- 21 of 44 visitors (48%) preferred option one - the '3.92% +CPI' up-front option; while
- 23 of 44 visitors (52%) preferred option two - the '1.32% +CPI' annual increase option.

Gippsland Water also sought to engage with its CCC in relation to the survey questions in late June 2012. The committee's response in relation to the Proposed Tariffs Survey reflected a stronger preference for option 2, the 1.32% +CPI annual increase option.

The Proposed Tariffs Fact Sheet also outlined that option two was the preferred Gippsland Water outcome because the higher tariffs generated at the end of the period may limit any price rises in the next pricing period.

Given the survey results, and Gippsland Water's stated preferred position, Gippsland Water has adopted option two (annual average increase +CPI) in this final Water Plan 3 proposal. Gippsland Water will continue to monitor this position in the lead up to the ESC's Final Decision in June 2013.

Given a range of changes between Gippsland Water's draft and final Water Plan 3 proposals, including reductions in operating expenditure and changes to the capital expenditure profile, tariff increases proposed in this final Water Plan 3 proposal are now lower than those outlined in the draft Water Plan 3 proposal. This final Water Plan 3 proposal includes an annual average increase of 0.98% + CPI.

Table 7.1: Tariff Options

Tariff Option	draft Water Plan 3 proposal	final Water Plan 3 proposal
Up-front	'3.92% +CPI'	Not applicable
Annual increase	'1.32% +CPI'	'0.98% +CPI'

7.6 TARIFF LEVELS

Based on an annual average increase of 0.98% + CPI, detailed below are the actual tariffs that Gippsland Water will seek to apply for the period of this Plan. The tariffs are presented on the basis of major service provision, and are thus separated into segments for water, wastewater, major customers, recycled water, trade waste, land development, property connections, rechargeable works and miscellaneous services.

7.6.1 Water Tariffs

a) Water Service Availability Charge

A water service availability charge applies to all properties in all water districts where the water main passes through, or fronts a property or is capable of providing a service to the property.

The water service availability charge is a contribution towards the cost of providing the water supply to the property and is charged according to the size of the service (not the meter itself). Non-connected properties pay the minimum availability charge.

Table 7.2: Water Service Availability Charge ($ Jan 13)

	Current	Third regulatory period				
Size of Service	12/13	13/14	14/15	15/16	16/17	17/18
Non-connected	82.64	83.45	84.27	85.10	85.93	86.77
20mm	165.42	167.05	168.68	170.34	172.00	173.69
25mm	165.42	167.05	168.68	170.34	172.00	173.69
32mm	424.00	428.16	432.35	436.59	440.87	445.19
40mm	661.79	668.28	674.83	681.44	688.12	694.86
50mm	1,034.13	1,044.27	1,054.50	1,064.83	1,075.27	1,085.81
75mm	2,326.79	2,349.59	2,372.61	2,395.87	2,419.35	2,443.06
80mm	2,647.61	2,673.56	2,699.76	2,726.22	2,752.93	2,779.91
100mm	4,136.61	4,177.15	4,218.08	4,259.42	4,301.16	4,343.31
150mm	9,307.56	9,398.77	9,490.88	9,583.89	9,677.81	9,772.65

For multi-tenement properties such as flats, units, town houses, shops and shopping arcades etc, connected to the water supply service, a water service availability charge applies to each separate occupancy on that property, irrespective of the size of the service, whether the property is separately metered or whether the property is occupied or vacant.

Where a residential property is separately metered, and subject to a tenancy agreement under the Residential Tenancies Act 1997, the tenant pays for water usage only. The water service availability charge is paid by the landlord.

b) Water Usage Charge

The property owner is liable for all water usage charges levied at a rate per kilolitre, unless the property is subject to a tenancy agreement under the Residential Tenancies Act 1997.

Tenants and Caravan Park residents who are covered under the Residential Tenancies Act 1997 are only liable for any water usage charges if their supply of water is measured by a separate meter owned, installed and maintained by Gippsland Water and Gippsland Water has read the meter on receiving notification that a tenant now occupies the residency.

Table 7.3: Water Usage Charge ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Treated Water per kL	1.9130	1.9317	1.9507	1.9698	1.9891	2.0086
Raw Water per kL	1.0755	1.0861	1.0967	1.1075	1.1183	1.1293

Table 7.4: Metered Hydrant Charge ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Metered Hydrant per kL	4.3096	4.3518	4.3945	4.4375	4.4810	4.5249
Metered Hydrant annual fee	124.03	124.03	124.03	124.03	124.03	124.03

Customers will be sent accounts at least every four months for availability charges and water usage charges within two working days after Gippsland Water has read the meter or estimated the meter reading. If an estimated reading is required, it will be calculated by having regard to the quantity of water delivered to the land in any previous or subsequent period or periods, by having regard to the quantity of water delivered to any similar property during the period concerned and in any other way that is prescribed.

Where a property is connected to Gippsland Water's water service but is unmetered, a notional usage charge equivalent to the cost of 209 kilolitres of water per annum is charged.

c) Recycled Water Charge

The only recycled water system currently available is the GWF. The total recycled water output from this facility will be provided under contract to a current major customer. Rates for the supply of recycled water are set out in the contract, and are subject to annual increases to the cost of services provided.

d) Fire Service Availability Charge

Private fire services may be installed without meters provided that every fire-hose tap is sealed in an approved manner and kept sealed unless otherwise approved in writing by Gippsland Water. Except in the case of fire or by written consent of Gippsland Water; no person shall wilfully break the seal affixed to any fire-hose tap. In the event of any such seal being broken the occupier of the property shall, within two working days thereafter, give Gippsland Water notice in writing of such breakage.

Gippsland Water may, by approval given in writing, waive the requirement to keep any hose-tap sealed provided that Gippsland Water is satisfied that no water drawn will be used for purposes other than for fire-fighting, fire-fighting practice or for testing and proving the fire service installation. Gippsland Water may at any time revoke any approval given and may require that meters shall be fitted at the owner's expense to measure all water supplied.

The following fees shall be payable to Gippsland Water in respect of private fire service installations:

- for each private fire service the annual fee. The fire service availability charge is a contribution towards the cost of providing a water service to hose reels, hydrants or sprinkler systems for fire fighting purposes only;
- for the provision of design information in accordance with the requirements of the Building Regulations 1994; and
- for sealing by Gippsland Water of fire hose taps.

Fire service availability charges apply to non-residential properties only.

Table 7.5: Fire Service Availability Charge ($ Jan 13)

	Current	Third regulatory period				
Size of Service	12/13	13/14	14/15	15/16	16/17	17/18
20mm	41.42	41.82	42.23	42.65	43.06	43.49
25mm	41.42	41.82	42.23	42.65	43.06	43.49
32mm	105.93	106.97	108.02	109.08	110.15	111.22
40mm	165.47	167.09	168.73	170.38	172.05	173.73
50mm	258.51	261.05	263.61	266.19	268.80	271.43
75mm	581.81	587.51	593.27	599.08	604.95	610.88
80mm	661.83	668.32	674.87	681.48	688.16	694.91
100mm	1,034.12	1,044.25	1,054.49	1,064.82	1,075.26	1,085.79
150mm	2,326.83	2,349.63	2,372.66	2,395.91	2,419.39	2,443.10

7.6.2 Wastewater Tariffs

a) Wastewater Service Availability Charge

A wastewater service availability charge applies to all properties in all wastewater districts where the wastewater main passes through or is adjacent to a property, or is capable of providing a service to the property.

The wastewater service availability charge is a contribution towards the cost of providing the wastewater service to the property. It applies to both developed residential and non-residential properties and vacant land where wastewater services have been constructed and are capable of servicing the property. Non-connected properties pay the minimum availability charge.

For multi tenement properties such as flats, units, town houses, shops and shopping arcades etc, connected to the wastewater service, a wastewater service availability charge applies to each separate occupancy on that property, whether the property is occupied or vacant.

Table 7.6: Wastewater Service Availability Charge ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Connected property	758.75	766.19	773.70	781.28	788.93	796.67
Non-connected property	379.36	383.08	386.83	390.62	394.45	398.32

b) Wastewater Volumetric Charge

A wastewater volumetric charge applies to non-residential properties which use in excess of 100 kilolitres of water in any four monthly period, calculated and levied on the following basis:

A. = water usage above 100 kilolitres in any four monthly period.

B. = wastewater volumetric charge per kilolitre

C. = a percentage figure of 95%, 75%, 50% or 25%, based upon the property type (as detailed below).

D. = the Wastewater Volumetric Charge to be paid.

The wastewater volumetric charge shall be calculated as D = A x B x C. The charge is set according to the type of development or business conducted on the property.

Property types designated at 95% wastewater volumetric charge

Aerodrome, Agri-business/Meat and Poultry, Art Gallery, Automotive, Bank, Body Corporate (Non-Res), Church, Cinema/Theatre, Clubs/Facilities/Venues (Meal Preparation), Commercial Storage Units, Community Services (Schools, Hospitals, Prison, Childcare Facilities), Courthouse, Dry Cleaners, Emergency and Public Services, Factory, Hairdresser/Barber, Hotel, Laundromat, Library, Livestock/Saleyards, Medical and Dwelling, Medical Rooms/Facilities (Doctors, Dentists, Chiropractic etc), Museum, Office, Photo Laboratory/Chemical, Post Office, Public Utility (eg Public Toilets), Pump Station, Radio Station, Railway Station, Restaurants and Cafes, Shed, Shops, Shop and Dwelling, Shopping Centre, Supermarket, Telephone Exchange, Timber Yard (retail), Veterinary Centres, Warehouse, Wool Production, Workshop and Dwelling, Wrecking Yard, Undefined.

Property types designated at 75% wastewater volumetric charge

Accommodation, Food Processing/Manufacturing, Public Swimming Pools, Undefined.

Property types designated at 50% wastewater volumetric charge

Brewery/Winery (wine making process), Caravan Park, Farms/Animal Husbandry, Funeral Parlour, Horse Stable and House, Kennels/Animal Hospital, Piggery, Undefined.

Property types designated at 25% wastewater volumetric charge

Bakery, Cemetery, Clubs/Outdoor Facilities (Ground Watering Only), Market Garden, Plant Nursery, Racecourse/Stables, Winery/Vineyard, Timber Factory/Saw Mill, Undefined.

Table 7.7: Wastewater Volumetric Charge ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Cost per kL	3.6150	3.6504	3.6862	3.7223	3.7588	3.7956

7.6.3 Major Customer Tariffs

Major customers, by the nature of their size, the significant level of the volumes of water used, and volumes of waste disposed, have long term contracts in place with Gippsland Water. These contracts stipulate prices at which water is sold, and waste disposed. In some instances, prices are linked directly to the non-residential tariffs for water and wastewater. In other instances, mechanisms within the contract allow for annual increases to the cost of services provided.

In determining the revenue requirement for this Water Plan, a significant review of major customer contracts has been undertaken, to ensure that major customer revenues are accounted for correctly.

Gippsland Water has taken significant steps during the second regulatory period to bring major customer tariffs in line with residential and non-residential customer tariffs. In particular, this has occurred as a result of Gippsland Water introducing a new Quality Based Trade Waste (QBTW) Tariff during the second regulatory period. A number of major customers have since been put on a tariff 'glide path' towards these significantly higher tariffs, which are based on the pollutant load in the wastewater rather than volumes alone. These customers will be on full tariffs by the commencement of the third regulatory period.

7.6.4 Quality Based Trade Waste Tariff (QBTW)

Gippsland Water introduced a QBTW tariff for trade waste customers from July 2010. This new tariff effectively replaced the current non-residential wastewater volumetric charge where new and existing trade waste customers present an elevated level of risk to the wastewater treatment process. The introduction of the QBTW tariff sought to provide appropriate signals to trade waste customers about the relative merits of discharging to the sewerage system compared to alternatives such as waste minimisation and on-site treatment.

The QBTW tariff model is designed to be more reflective of Gippsland Water's costs to treat trade waste. The model consists of three core elements:

- a volumetric component (equal to 50% of Gippsland Water's prevailing non-residential wastewater volumetric charge);
- a quality component (comprising individual tariffs for Biochemical Oxygen Demand, Suspended Solids and Total Phosphorus, the combined quality tariffs equate to 50% of Gippsland Water's prevailing non-residential wastewater volumetric charge only when the trade waste quality is equivalent to 'high strength domestic' waste); and
- cost recovery in relation to the trade waste sampling regime.

The quality component is 'weighting based', focusing on those waste quality parameters outlined above that are the focus of treatment (Biochemical Oxygen Demand, Suspended Solids and Total Phosphorus).

The QBTW tariff model is designed to ensure that when trade waste discharge parameters exceed levels equivalent to 'high strength domestic' waste a higher tariff will apply, based on the pollutant load, whereas those customers who are discharging at levels equivalent to 'high strength domestic' waste will pay the equivalent of the non-residential wastewater volumetric tariff. Likewise customers who discharge a pollutant load that is less than 'high strength domestic' waste will pay a reduced tariff. Customers will still be required to meet Gippsland Water's trade waste limits at all times.

Gippsland Water applies the same volumetric excess to the quality based tariff as currently applies to the non-residential wastewater volumetric tariff. In other words, the QBTW tariff will only apply where water consumption exceeds 100 kL in any four month billing period. Where a dedicated wastewater meter exists, the tariff will continue to be applied on the total volume recorded at the meter. In addition, the current annual trade waste agreement fee will remain in place.

Table 7.8: Quality Based Trade Waste Tariff ($ Jan 13)

	Current	Third regulatory period				
Waste Parameter	**12/13**	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**
Volumetric Charge	1.8074	1.8251	1.8430	1.8611	1.8793	1.8978
Biochemical Oxygen Demand(BOD)	0.4518	0.4562	0.4607	0.4652	0.4698	0.4744
Suspended Solids (SS)	3.6149	3.6503	3.6861	3.7222	3.7587	3.7955
Phosphorus(P)	24.0996	24.3358	24.5743	24.8151	25.0583	25.3038

7.6.5 Trade Waste Tariffs

All customers discharging trade waste to the sewerage system must have:

- applied in writing to Gippsland Water for consent to discharge trade waste to the sewerage system; and
- entered into an agreement with Gippsland Water that details the terms and conditions for discharge to which the customer must comply.

Any existing customer discharging trade waste that does not have an agreement with Gippsland Water to discharge trade waste to sewer must apply for an agreement immediately. Failure to do so may result in Gippsland Water requiring discharge to cease.

Table 7.9: Trade Waste Annual Charge ($ Jan 13)

	Current	Third regulatory period				
Type	**12/13**	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**
Annual Charge	293.19	296.06	298.96	301.89	304.85	307.84

Any customer proposing to discharge trade waste to the sewerage system must complete an application and submit it to Gippsland Water for consideration. An application shall, unless Gippsland Water determines otherwise, comply with the Gippsland Water Trade Waste Policy and be accompanied by the relevant fee. For prospective customers, an estimate of the expected quantity and quality of trade waste will need to be provided to Gippsland Water to allow correct trade waste categorisation.

Table 7.10: Trade Waste Application Fee ($ Jan 13)

	Current	Third regulatory period				
Type	12/13	13/14	14/15	15/16	16/17	17/18
Application Fee	115.43	116.56	117.70	118.86	120.02	121.20

7.6.6 New Customer Contributions

a) Proposed changes - New Customer Contributions

The application of NCCs to developments has been an area of concern for the water industry, developers and the ESC despite numerous attempts to map out a simple approach that ensures developers contribute to requirements to service new developments, but are not unfairly burdened with costs that do not relate to their particular development.

During the second regulatory period, the ESC noted that there was a range of disputes between water businesses and developers in relation to the application of NCCs. These disputes have centred around:

- lack of clarity about what the scheduled charge pays for;
- complex definitions relating to bring forward charges and reticulation assets; and
- lack of consistency between water corporations in the way NCCs are applied.

The ESC is proposing to move to a new regime for regulating NCCs from July 2013, which gives water corporations the ability to negotiate a charge for providing infrastructure and other associated activities to connect new customers at specific locations. The ESC has proposed a framework which:

- moves from a prescriptive to a more flexible negotiate and arbitrate approach;
- moves the focus away from an asset based pricing (focussed on prescriptive categories and definitions of assets) to service capacity-based contributions; and
- shifts from a simplistic uniform NCC charge to a more cost reflective NCC based on the net incremental connection costs.

Gippsland Water notes that this is a significant shift from the current arrangements of state-wide scheduled charges and prescriptive definitions and cost recovery arrangements relating to reticulation assets and bring forwards.

At the time of developing this final Water Plan 3 proposal, a significant level of uncertainty remained in relation to how the new regime would work, and what impact it would have on future NCCs. From a Gippsland Water perspective, the new regime may result in a number of changes including:

- severely limiting the corporation's ability to apply scheduled and non-scheduled charges in the future;
- significantly increasing shared asset capital expenditure projections for the third regulatory period (given current estimates include an expectation that developers will contribute to assets developed out of sequence); and
- increasing general water and wastewater tariffs to offset NCC revenue currently included in this plan.

In late August 2012, the ESC released a further guidance paper on NCCs. This latest guidance paper outlines the new NCC regime which the ESC expects water corporations to adopt. In the guidance paper, the ESC has advised water corporations that final Water Plan 3 proposals can be based on the existing NCC regime. Where this occurs however, the ESC will require water corporations to provide an updated final Water Plan 3 proposal by early December 2012. This updated proposal must include NCC revenue based on the new regime as well as a proposed NCC framework, any standardised NCC and any transition plan (glide path), where any NCC is proposed to increase significantly.

Given the uncertainties listed above, Gippsland Water has elected to base this final Water Plan 3 proposal on the existing NCC regime as outlined below. Gippsland Water will provide an updated proposal to the ESC by early December 2012, once the effects of the new regime have been determined accurately.

b) Scheduled Charges

When land is subdivided, or an existing property is redeveloped, the demand on the water and wastewater reticulation systems may increase. Storage capacities and treatment works may have to be enlarged to meet this demand. New customer contributions (NCC) for headworks (water) and outfall/disposal (wastewater) recover part of the cost of constructing permanent works such as storages, pumping stations, treatment plants, water distribution mains and outfall sewers.

NCC for water supply and wastewater services apply to each additional lot created by a subdivision, including body corporate subdivision, multi-unit and dual occupancy developments that are separately titled or are, or can be individually metered. A credit of one development charge is applicable for any existing properties that are connected to water and/or wastewater services and form part of the subdivision or development.

Gippsland Water's final Water Plan 3 proposal has been based on the tariff structure adopted on an industry-wide basis for the second regulatory period. This structure sets a standard schedule of charges, scaled according to the water-sensitivity of particular developments and the demand for future infrastructure as detailed below.

- **Category 1)** Where a NCC is to be applied, a charge per lot per new service for water, wastewater and dual pipe water for developments which are designed in a manner that will have minimal impact on future water resource demands, and can be catered for without additional investment within the medium-term distribution capacity (typically a lot with an area no greater than 450 square metres per lot with a small demand on the system).
- **Category 2)** A charge per lot per service for water and wastewater and dual pipe applies to urban developments which will require further investment in infrastructure to serve these developments (typically traditional greenfield urban developments with lot sizes between 450sqm and 1,350sqm).
- **Category 3)** A charge per lot per service for water, wastewater and dual pipe for developments designed in such a way that properties will create demand for water resources over and above high-density developments and will require further investment in infrastructure to service these developments (typically greenfield developments with lots sizes exceeding 1,350sqm).

Table 7.11: New Customer Contribution ($ Jan 13)

Type	Current 12/13	Third regulatory period 13/14	14/15	15/16	16/17	17/18
Typical standard greenfield urban development or subdivision						
Water NCC - Less than 450sqm	608.64	608.64	608.64	608.64	608.64	608.64
Water NCC - 450 - 1350sqm	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30
Water NCC - Above 1350sqm	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63
Sewer NCC - Less than 450sqm	608.64	608.64	608.64	608.64	608.64	608.64
Sewer NCC - 450 - 1350sqm	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30
Sewer NCC - Above 1350sqm	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63
Third pipe greenfield urban development or subdivision						
Water NCC - Less than 450sqm	304.31	304.31	304.31	304.31	304.31	304.31
Water NCC - 450 - 1350sqm	608.64	608.64	608.64	608.64	608.64	608.64
Water NCC - Above 1350sqm	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30
Recycled NCC - Less than 450sqm	608.64	608.64	608.64	608.64	608.64	608.64
Recycled NCC - 450 - 1350sqm	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30
Recycled NCC - Above 1350sqm	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63
Sewer NCC - Less than 450sqm	608.64	608.64	608.64	608.64	608.64	608.64
Sewer NCC - 450 - 1350sqm	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30	1,217.30
Sewer NCC - Above 1350sqm	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63	2,434.63

c) Non-scheduled Charge - Out of Sequence Developments

When a development is out of sequence with Gippsland Water's planned development for the provision of shared infrastructure, Gippsland Water may charge a developer a non-scheduled charge that will recover the most efficient costs associated with bringing forward the provision of shared assets. Where a non-scheduled charge is levied on a stage of a development, scheduled charges cannot also be levied on the connections within that stage of the development.

7.6.7 Coongulla/Glenmaggie And Loch Sport Sewerage Schemes

The provision of wastewater services to townships of Coongulla, Glenmaggie and Loch Sport will occur during the third regulatory period. Gippsland Water cannot recover more than the amount stipulated by the Minister for Water when these schemes were announced. Accordingly, this Plan assumes that customers in these townships will contribute $80 per annum per property, for 20 years commencing once the projects are completed. Customers will still be provided with the opportunity to contribute $800 'upfront' in lieu of the $80 per annum for 20 years charge.

7.6.8 Miscellaneous Services

In addition to providing 'core' water and wastewater services, Gippsland Water provides a wide range of other services to customers. This includes undertaking new connections, providing special meter readings, conducting meter tests, providing property information statements and reviewing applications to build over easements. Gippsland Water also imposes a range of application and 'penalty' fees (such as where customers' cheques are dishonoured).

Gippsland Water has now developed a schedule of miscellaneous services that reflect the more common services provided to customers.

Table 7.12: Miscellaneous Services ($ Jan 13)

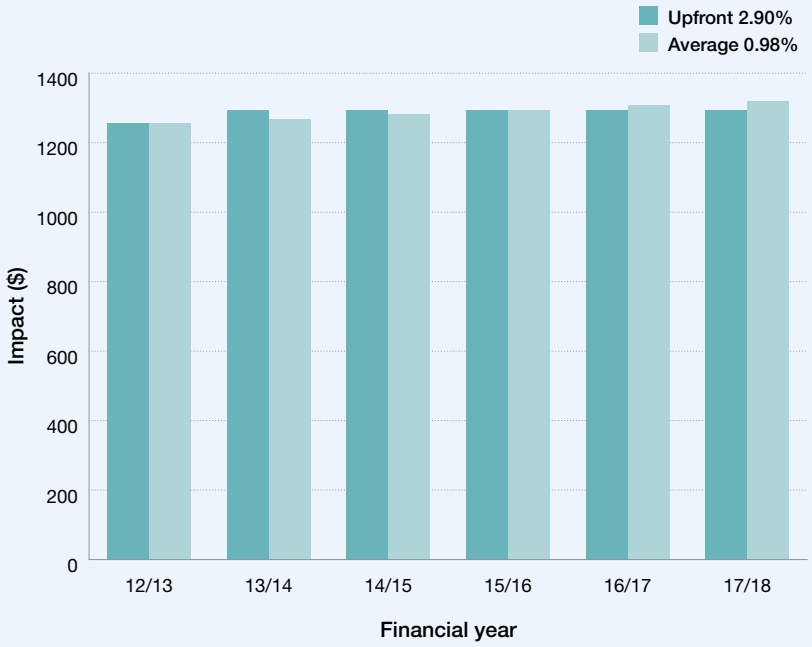
	Current	Third regulatory period				
	12/13	13/14	14/15	15/16	16/17	17/18
Meter Installation (per meter)						
Installation/Supply of 20mm Meter (Incl Couplings)	At cost	At cost	At cost	At cost	At cost	At cost
Installation/Supply of 25mm Meter (Incl Couplings)	At cost	At cost	At cost	At cost	At cost	At cost
Meter Assembly Fee for Pre-Tapped Properties (per meter)						
Pre-tapped connection of 20mm meter (Installation of 20mm meter to pre-tapped buried water service)	At cost	At cost	At cost	At cost	At cost	At cost
Special Meter Reads (each)						
Special meter read at the commencement of a tenancy and at the termination of a tenancy	At cost	At cost	At cost	At cost	At cost	At cost
Information Statements (each)						
Preparation of a Property Information Statement, inclusive of a Special Meter Reading performed on settlement date	66.77	66.77	66.77	66.77	66.77	66.77
Application for Connection to Waste Water Main (each)						
Standard residential connection into wastewater connection point	119.40	119.40	119.40	119.40	119.40	119.40
Minor repairs/alterations requiring P.I.C number	44.25	44.25	44.25	44.25	44.25	44.25
Small industrial/commercial connection	156.57	156.57	156.57	156.57	156.57	156.57
Provision of wastewater connection point to existing wastewater main by accredited pipelayer	74.46	74.46	74.46	74.46	74.46	74.46
Application to Build over Gippsland Water's Assets and/or Easements (each)						
Fees for Application to Build over Gippsland Water's Assets and/or Easements	29.52	29.52	29.52	29.52	29.52	29.52
Land Development Fees						
Application Fee including water supply and wastewater (each) 11-20 lots in subdivision	560.16	560.16	560.16	560.16	560.16	560.16
Offer Acceptance Fee including water supply and wastewater (each) 11-20 lots in subdivision	1,244.98	1,244.98	1,244.98	1,244.98	1,244.98	1,244.98
Non-core miscellaneous services						
	At cost	At cost	At cost	At cost	At cost	At cost

7.7 CUSTOMER IMPACTS – AVERAGE HOUSEHOLD BILL (EXCLUDING CPI)

7.7.1 Full Service Customer – Average Water Consumption

Assuming average water consumption of 174 kL per annum, figure 7.1 below outlines a typical household bill for a customer who receives both water and wastewater services. The proposed average '0.98% per annum' increase is shown for comparative purposes along side an 'upfront 2.90%' increase. By 2017/18, an average household bill is $27 more per annum under the '0.98% per annum' increase.

Figure 7.1: Average Household Bill – Full Service Customer ($ Jan 13 excluding CPI)

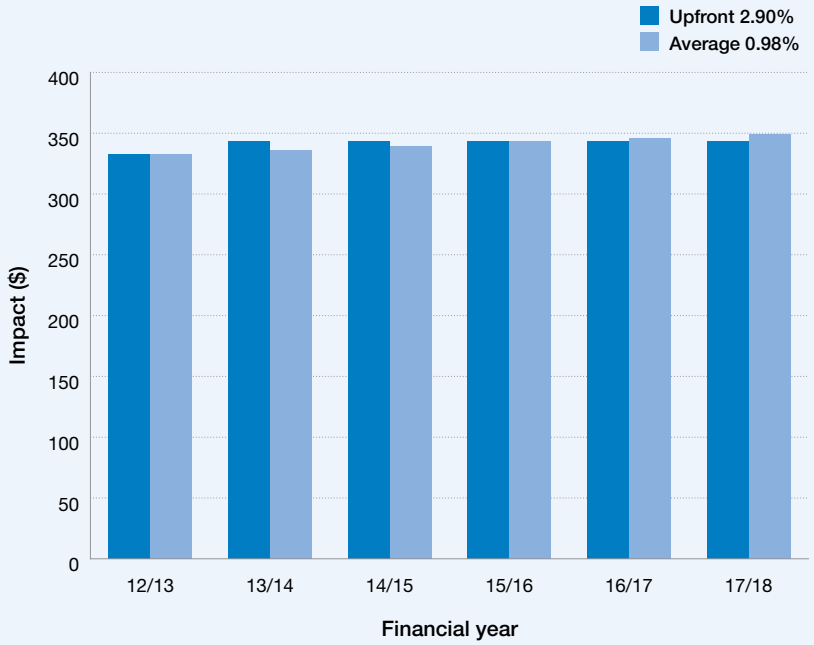


	12/13	13/14	14/15	15/16	16/17	17/18
Upfront 2.90%	$1,257	$1,293	$1,293	$1,293	$1,293	$1,293
Average 0.98%	$1,257	$1,269	$1,282	$1,294	$1,307	$1,320

7.7.2 Tenant Customer – Average Water Consumption

Assuming an average annual water consumption of 174 kL per annum, figure 7.2 below outlines a typical household bill for a customer who is a tenant, and would normally pay water volumetric charges only. The proposed average '0.98% per annum' increase is shown for comparative purposes along side an 'upfront 2.90%' increase. By 2017/18, an average household bill is $6 more per annum under the '0.98% per annum' increase.

Figure 7.2: Average Household Bill – Tenant Customer ($ Jan 13 excluding CPI)



	12/13	13/14	14/15	15/16	16/17	17/18
Upfront 2.90%	$333	$343	$343	$343	$343	$343
Average 0.98%	$333	$336	$339	$343	$346	$349

7.7.3 Customers Who Do Not Fit The 'Average Water Consumption' Profile

The use of averages in water consumption discussions allows for ease of presentation of data. For many customers however, actual usage may vary significantly from this average. Tables 7.13, 7.14 and 7.15 below provide information on average household bills for a range of water consumption levels by customer type.

Table 7.13: Average Household Bill – Full Service Customer ($ Jan 13 excluding CPI)

kilolitres used	12/13	13/14	14/15	15/16	16/17	17/18
40	1,000.70	1,010.50	1,020.40	1,030.40	1,040.50	1,050.70
80	1,077.22	1,087.77	1,098.43	1,109.20	1,120.07	1,131.04
120	1,153.74	1,165.04	1,176.46	1,187.99	1,199.63	1,211.39
240	1,383.30	1,396.85	1,410.54	1,424.36	1,438.32	1,452.42
280	1,459.82	1,474.12	1,488.57	1,503.16	1,517.89	1,532.76
320	1,536.34	1,551.39	1,566.59	1,581.95	1,597.45	1,613.11

Table 7.14: Average Household Bill – Water Only Customer ($ Jan 13 excluding CPI)

kilolitres used	12/13	13/14	14/15	15/16	16/17	17/18
40	241.94	244.32	246.71	249.13	251.57	254.03
80	318.46	321.58	324.74	327.92	331.13	334.38
120	394.98	398.85	402.76	406.71	410.70	414.72
240	624.54	630.66	636.85	643.09	649.39	655.75
280	701.06	707.93	714.87	721.88	728.95	736.10
320	777.58	785.20	792.90	800.67	808.52	816.44

Table 7.15: Average Household Bill – Tenant Customer ($ Jan 13 excluding CPI)

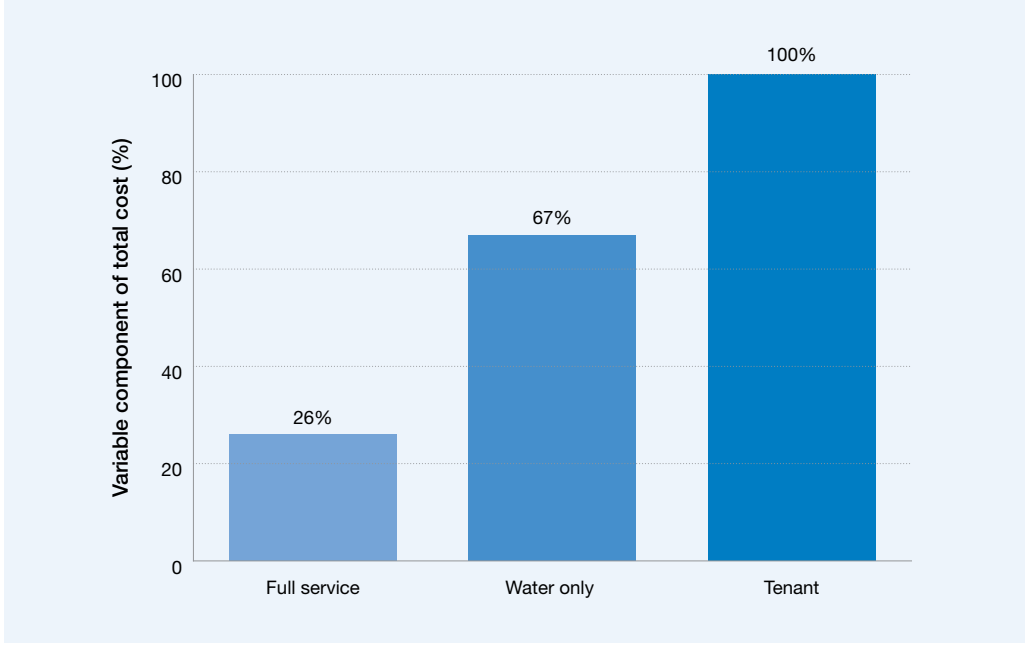
kilolitres used	12/13	13/14	14/15	15/16	16/17	17/18
40	76.52	77.27	78.03	78.79	79.56	80.34
80	153.04	154.54	156.05	157.58	159.13	160.69
120	229.56	231.81	234.08	236.38	238.69	241.03
240	459.12	463.62	468.16	472.75	477.38	482.06
280	535.64	540.89	546.19	551.54	556.95	562.41
320	612.16	618.16	624.22	630.33	636.51	642.75

7.8 RESIDENTIAL CUSTOMER IMPACTS – VARIABLE COMPONENT OF WATER CHARGE

There has been considerable discussion in the media, and within the community about the variable component of water bills. For its part, Gippsland Water has alerted customers to the fact that their 'water bill' actually contains charges for two very distinct services – the provision of water and the removal of wastewater. Wastewater costs on the bill are based on a fixed tariff. No volumetric tariff is charged as residential wastewater disposal volumes are neither metered nor estimated. This contrasts with the 'water supply cost' which consists of a fixed water availability tariff and a variable water usage tariff.

The variable component of a customers' total 'water bill' will depend on the services provided by Gippsland Water. Figure 7.3 outlines the variable component of the combined 'water bill' for each type of service provided. The figure utilises average annual consumption of 174kL water for comparative purposes. The figure illustrates that using average annual consumption of 174kL, the total 'water only' cost is 67% variable.

Figure 7.3: Variable Component Of Total Cost (based on 2013/14 tariffs)



SECTION 8

Gippsland Water will request that the ESC reviews these calculations in order to provide Gippsland Water's customers with an assurance that the outcome determined by Gippsland Water accurately represents the adjustment required.

REVENUE REQUIREMENT

8.1 FINANCING CAPITAL INVESTMENT

Under the provisions of the Water Industry Regulatory Order 2003 (WIRO), Gippsland Water may recover the cost of financing existing and new investments by:

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

8.2 UPDATING THE REGULATORY ASSET BASE

In March 2005, pursuant to section 14 (a) (iv) of the WIRO, the Minister for Water advised the ESC of the RAB to apply to each water business as at July 2004. Gippsland Water's RAB was set at $156M.

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

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

This process has continued during the second regulatory period. As Gippsland Water enters the third regulatory period, RAB values again need to be updated to reflect both the indexing of values to January 2013 dollars, and the value of future capital expenditure, customer and government contributions and disposals.

Table 8.1 below shows the calculation of the value of the RAB across the second regulatory period and at June 2013. This is based on actual outcomes to June 2012 and Gippsland Water's forecasts for 2012/13 (taken from the corporation's 2012/13 Corporate Plan). The table includes the gross costs of the GWF project, without adjustments, for comparative purposes.

Table 8.1: Calculation Of RAB At 1 July 2013 ($ Jan 13 – millions)

	08/09	09/10	10/11	11/12	12/13
Opening balance	363.45	447.77	469.35	504.47	529.61
Less GWF adjustments	Nil	Nil	Nil	Nil	Nil
Plus Gross Capex	94.55	36.41	50.60	40.02	66.79
Less Govt Contribs	-0.05	-0.44	-1.99	Nil	-6.25
Less Cust Contribs	-1.32	-3.73	-2.15	-2.56	-2.62
Less proceeds for disposals	-0.39	-0.73	-0.55	-0.57	-1.07
Less Reg Depn	-8.47	-9.93	-10.79	-11.75	-12.79
Closing Balance	447.77	469.35	504.47	529.61	573.67

8.3 GIPPSLAND WATER FACTORY – TARIFF IMPACT OF COST OVERRUN

During the construction phase of the GWF project there was considerable concern that capital costs to complete the project were significantly more than budgeted, and would have a serious impact on water and wastewater tariffs in the years ahead.

At the time, Gippsland Water confirmed several key points:

- capital cost overrun on the project was acknowledged as significant;
- the final capital cost to Gippsland Water was $230M;
- the alliance-style contract required the alliance partners to share some of the cost overrun, and effectively shield Gippsland Water and its customers from additional costs;
- Gippsland Water would look to work diligently in the future to avoid the need to pass on the additional capital costs through higher tariffs to customers;
  - this would be achieved by excluding the additional capital costs in the third regulatory period tariff development process; and
- Gippsland Water would look to find efficiency savings to offset 'real' borrowing costs in the future.

In both the draft and final Water Plan 3 proposals, Gippsland Water has maintained the position outlined above. The additional capital costs of the GWF have been excluded from the tariff development process.

To provide transparency around this issue requires readers to understand the detail that underpins the pricing process. While this is not a simple process to describe, Gippsland Water has outlined below how the treatment of the cost overrun ensures it cannot impact on future tariffs.

8.3.1 Gippsland Water Reduction To RAB In June 2012

Gippsland Water's adjustment to the RAB, to ensure the GWF cost overrun is excluded, is outlined in the three steps below.

a) Determine final cost of GWF project ($ Jan 13)

Gippsland Water's accounting records show that the total cost to construct the GWF was $230M ($ of day). This expenditure occurred over a seven year period, from 2004/05 to 2010/11. After indexation, this value becomes $261.46M ($ Jan 13).

b) Determine final project value approved by the ESC ($ Jan 13)

The total project value approved by the ESC, in the Water Plan 2 Final Decision in June 2008, was $186.05M (Jan 07 $). After indexation, this value becomes $219.86M ($ Jan 13).

c) Determine project overrun value ($ Jan 13)

To determine the total value of the project overrun, subtract the ESC approved value of $219.86M ($ Jan 13) from the final total cost of $261.46M ($ Jan 13). The total value of the cost overrun is $41.6M ($ Jan 13).

To summarise, the asset value of the GWF project exceeded the ESC approved value by $41.6M. Gippsland Water has excluded the entire $41.6M variation from tariff calculations to ensure the cost overrun does not impact future tariffs. This deduction is shown in table 8.2.

Given the complex nature of the calculation process, Gippsland Water will request that the ESC reviews these calculations in order to provide Gippsland Water's customers with an assurance that the outcome determined by Gippsland Water accurately represents the adjustment required.

8.3.2 ESC Reduction To RAB In June 2009

Gippsland Water's customers may not be aware that the ESC had previously reduced the asset value of the GWF. In June 2008, when final water tariffs for the period from July 2008 to June 2013 were announced, the ESC deducted $30M from Gippsland Water's asset base, in order to lower tariff increases from 2008/09 onward.

At the time, the ESC stated that "Gippsland Water was in a stronger financial position than most water corporations, with most financial ratios well above the minimum requirement adopted by the Commission. The Commission considers that it is not unreasonable for Gippsland Water to absorb a proportion of the increased costs incurred in constructing the Gippsland Water Factory". This $30M reduction will continue to apply during the third regulatory period.

Table 8.2 below outlines the calculation of Gippsland Water's RAB from July 2008 onward. This timeframe allows Gippsland Water to disclose the impact of both Gippsland Water's one-off reduction of $41.6M in 2012/13, and the ESC's $30M RAB adjustment in June 2008, as detailed in the 'less GWF adjustment' line in the table.

Table 8.2: Revised Calculation Of RAB At 1 July 2013 With GWF Adjustments ($ Jan 13 – millions)

	08/09	09/10	10/11	11/12	12/13
Opening balance	363.45	412.33	433.90	469.02	494.16
Less GWF Adjustment	-35.45	Nil	Nil	Nil	-41.60
Plus Gross Capex	94.55	36.41	50.60	40.02	66.79
Less Govt Contribs	-0.05	-0.44	-1.99	Nil	-6.25
Less Cust Contribs	-1.32	-3.73	-2.15	-2.56	-2.62
Less proceeds for disposals	-0.39	-0.73	-0.55	-0.57	-1.07
Less Reg Depn	-8.47	-9.93	-10.79	-11.75	-12.79
Closing Balance	412.33	433.90	469.02	494.16	496.61

The closing balance at June 2013 in Table 8.2 can now be compared with the unadjusted value in Table 8.1 above. This comparison clearly outlines that Gippsland Water's RAB at June 2013 has been adjusted down from $573.67M to $496.61M, a reduction of $77.06M, comprising both the ESC reduction and the one-off Gippsland Water reduction.

8.4 ROLLING FORWARD THE REGULATORY ASSET BASE (RAB)

The forecast RAB for the third regulatory period has been calculated on the same basis as outlined above. RAB is adjusted annually in the following manner:

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

Gippsland Water's forecast RAB for each year of the third regulatory period is shown in Table 8.3.

Table 8.3: Forecast RAB ($ Jan 13 – millions)

	13/14	14/15	15/16	16/17	17/18
Opening balance	496.61	519.60	557.92	575.55	591.41
Plus Gross Capex	41.63	54.90	38.13	34.69	33.59
Less Govt Contribs	3.35	Nil	Nil	Nil	Nil
Less Cust Contribs	2.66	2.81	5.17	2.86	3.52
Less proceeds for disposals	0.79	0.87	1.37	1.09	0.87
Less Reg Depn	11.85	12.90	13.96	14.88	15.75
Closing Balance	519.60	557.92	575.55	591.41	604.86

8.4.1 Forecast Gross Capital Expenditure

Gippsland Water's forecast gross capital expenditure for each year of the regulatory period is detailed in chapter 5.

8.4.2 Forecast Government Contributions

Gippsland Water's capital program includes the provision of new wastewater services to the townships of Glenmaggie, Coongulla and Loch Sport. These towns were included in the Victorian Government's CTWSS Program as priority one towns. Gippsland Water has received contributions towards the capital cost of each of these new schemes in prior years. While no further contributions are expected, the $3.35M contribution shown for 2013/14 represents the final drawdown on funds held in trust, for the Loch Sport Sewerage Scheme.

8.4.3 Forecast Customer Contributions

Gippsland Water's forecast customer contributions comprise two categories:

- new customer contributions for existing towns; and
- new customer contributions for new small town schemes.

NCCs for existing towns have been calculated based upon the forecast growth in properties across the existing Gippsland Water region as detailed in chapter 6 multiplied by the proposed prices for NCCs as detailed in chapter 7. Table 8.4 shows the calculation of NCCs from existing towns.

Table 8.4: New Customer Contributions For Existing Towns ($ Jan 13)

	13/14	14/15	15/16	16/17	17/18
No. of Properties					
- water connections	1,096	1,096	1,096	1,096	1,096
- wastewater connections	1,060	1,060	1,060	1,060	1,060
Total connections	**2,156**	**2,156**	**2,156**	**2,156**	**2,156**
Revenue per connection	$1,217.31	$1,217.31	$1,217.31	$1,217.31	$1,217.31
Total Revenue	**$2.6M**	**$2.6M**	**$2.6M**	**$2.6M**	**$2.6M**

As noted above, Gippsland Water's capital program includes the provision of new wastewater services to the townships of Glenmaggie, Coongulla and Loch Sport. These towns are included in the Victorian Government's CTWSS Program as priority one towns and accordingly these customers can select between an upfront contribution capped at $800 per property (based on title), or the option of paying $80 per annum over 20 years.

For pricing purposes Gippsland Water has assumed that these new customers will pay $80 per property from the completion of capital works. Table 8.5 shows the calculation of NCCs from new towns. The upfront option will still be offered to all customers.

Table 8.5: New Customer Contributions For New Towns ($ Jan 13)

	13/14	14/15	15/16	16/17	17/18
No. of Properties					
- Coongulla / Glenmaggie	441	441	441	441	441
- Loch Sport	Nil	Nil	2,453	2,453	2,453
Total connections	**441**	**441**	**2,894**	**2,894**	**2,894**
Revenue per connection per annum	$80	$80	$80	$80	$80
Total Revenue	**$0.035M**	**$0.035M**	**$0.231M**	**$0.231M**	**$0.231M**

Capital estimates for the provision of sewerage services in this plan for the townships of Coongulla, Glenmaggie and Loch Sport exclude all costs associated with customer works inside the customers' property boundary and recovery from these customers.

8.4.4 Forecast Proceeds From Disposal Of Assets

Forecast proceeds from disposal of assets represents Gippsland Water's estimated sale proceeds resulting from sale of motor vehicles as part of our ongoing fleet replacement program.

8.4.5 Regulatory Depreciation

Regulatory depreciation comprises depreciation on existing assets, that is, the closing RAB at 30 June 2013 and depreciation on new assets, that is, forecast capital expenditure. Consistent with the approach adopted by Gippsland Water in previous regulatory periods, regulatory depreciation has been calculated using a straight line approach.

Gippsland Water has reviewed the remaining lives of existing assets against its accounting records and through the application of a weighted average rather than a simple average, a lower depreciation charge for existing assets has resulted.

Depreciation of new assets has been calculated based upon an average life of 60 years for infrastructure related assets and 10 years for non-infrastructure assets which is again consistent with the approach adopted by Gippsland Water in previous regulatory periods.

8.5 WEIGHTED AVERAGE COST OF CAPITAL

Under the provisions of the WIRO, Gippsland Water may recover the cost of financing existing and new investments by earning a return on the value of the RAB. The weighted average cost of capital (WACC) is the return that Gippsland Water seeks to earn on the RAB. This plan has utilised the ESC's current estimate of 5.1% for the WACC. Gippsland Water understands that the ESC's current estimate may vary from the WACC adopted by the ESC when draft and final decisions are made during 2013. Table 8.6 details the factors behind the current estimate of the WACC.

Table 8.6: Real After-tax WACC

Risk free rate (real)	1.40%
Debt premium	3.50%
Equity premium	6.00%
Equity beta	0.65
Gearing structure	60%
Real after-tax WACC	5.1%

8.6 DETERMINING GIPPSLAND WATER'S REVENUE REQUIREMENT

Detailed in Table 8.7 is an overview of the revenue requirement for Gippsland Water to meet its obligations and deliver services during the regulatory period. The revenue requirement consists of several components, namely:

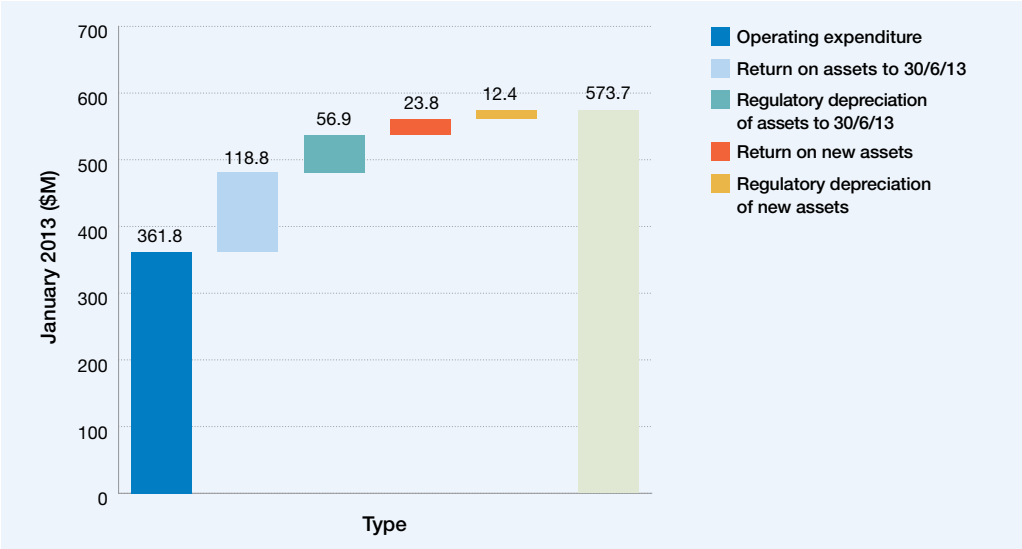
- operating expenditure – representing the expenditure outlined in chapter 4 that Gippsland Water believes should be incurred to ensure the delivery of obligations during this period;
- return on assets to June 2013 - representing a cost of capital return, based on the agreed WACC value of 5.1%, on pre-existing assets, whether those assets were constructed during the first or second Water Plan period, or before the commencement of regulation by the ESC in 2005/06;
- regulatory depreciation of assets to June 2013 - representing the costs associated with the use, wear and tear of pre-existing assets;
- return on new assets - representing a cost of capital return, based on the agreed WACC value of 5.1%, on assets to be constructed during the third regulatory period, the details of which are outlined in chapter 5; and
- regulatory depreciation on new assets - representing the costs associated with the use, wear and tear of new assets brought into service during the third regulatory period.

Table 8.7: Revenue Requirement By Year – Third Regulatory Period ($ Jan 13 – millions)

	13/14	14/15	15/16	16/17	17/18
Operating Expenditure	71.80	71.75	72.60	72.62	73.06
Return on assets to 30/6/13	25.02	24.39	23.76	23.11	22.48
Regulatory depreciation of assets to 30/6/13	11.38	11.38	11.38	11.38	11.38
Return on new assets	0.90	3.08	5.15	6.64	8.02
Regulatory depreciation on new assets	0.46	1.52	2.57	3.49	4.37
Total Revenue Requirement	**109.56**	**112.13**	**115.46**	**117.25**	**119.32**

Gippsland Water's total revenue requirement increases from a base of $109.56M in 2013/14 to total of $119.32M in 2017/18. This increase of $9.76M from the 2013/14 year stems from a $1.26M increase in operational expenditure over the third regulatory period combined with an $8.50M increase resulting from movements in new and existing assets (return on assets and regulatory depreciation). Figure 8.1 below displays the composition of the revenue requirement.

Figure 8.1: Composition of Revenue Requirement



The revenue generated by the Gippsland Water's proposed tariffs, by customer type and service provision, is summarised in table 8.8 below.

Table 8.8: Revenue Overview By Customer Type - Third Regulatory Period ($ Jan 13 – millions)

	13/14	14/15	15/16	16/17	17/18
Residential – fixed					
Water	10.33	10.61	10.90	11.19	11.49
Wastewater	40.81	42.13	43.85	45.69	47.10
Residential – volumetric					
Water	20.04	20.42	20.79	21.17	21.55
Non-residential – fixed					
Water	1.62	1.64	1.66	1.68	1.70
Wastewater	3.87	3.92	3.98	4.03	4.09
Non-residential – volumetric					
Water	3.95	3.94	3.93	3.92	3.91
Wastewater	2.56	2.55	2.55	2.54	2.54
Other	1.09	1.10	1.11	1.12	1.13
Major Customers					
Water and Wastewater	22.65	22.72	22.79	22.86	22.93
Miscellaneous charges	3.07	3.05	3.06	3.06	3.08
Total Revenue received	**110.04**	**112.14**	**114.66**	**117.33**	**119.58**

8.7 TAXATION

Gippsland Water became subject to the National Tax Equivalent Regime (NTER) from July 2002. Gippsland Water adopts the liability method of Tax Effect Accounting in accordance with the requirements of AASB 112.

While Gippsland Water expects to generate operating profits during the third regulatory period, Gippsland Water has not forecast tax obligations in the third regulatory period. Gippsland Water's current tax losses will shield the corporation from the requirement to pay tax during this period.

8.8 UNREGULATED ACTIVITIES

The WIRO outlines declared services in respect of which the ESC has the power to regulate standards and conditions of service. The WIRO also outlines prescribed services in respect of which the ESC has the power to regulate prices. Gippsland Water's activities that fall outside the scope of the WIRO are outlined in more detail below.

The operating and capital expenditures in, and revenues generated by these unregulated activities are excluded from the expenditures and revenues outlined in chapters 4,5 and 7 of this final Water Plan 3 proposal.

8.8.1 Soil And Organic Recycling Facility (SORF)

In accordance with the Water Act 1989, Gippsland Water operates a prescribed (industrial) waste treatment and storage facility at its Dutson Downs property. The facility is approved by the EPA for this purpose due mainly to its large buffer distances, its thick clay overlays and its well developed management practices. The 356 hectare site was initially established in order to dispose of industrial wastes utilising landfill technology.

The SORF has been designed to treat and recycle soil and solid organic material using advanced in-vessel composting technology. Based on proven methods, the SORF has been operational for more than two years, and a 'proof of process' has been achieved. The objective is that the end-product compost is fully compliant to the Australian standard for a market suitable soil reconditioner.

In addition, a liquids processing operation has been designed to treat and recycle organic liquid wastes using in-vessel separation technology (tank farm). The liquid organic wastes, treated in the liquids processing operation will allow the extraction of products of value prior to dewatering and incorporation into the composting process.

Table 8.9: SORF Revenue And Expenditure Summary ($ Jan 13 – millions)

Activity	12/13	13/14	14/15	15/16	16/17	17/18
Revenue	6.22	6.34	6.32	6.76	6.50	7.28
Operational Expenditure	4.63	4.66	4.65	4.66	4.69	4.69
Capital Expenditure	2.90	0.60	0.21	0.21	0.42	0.21

8.8.2 Agribusiness

The Gippsland Water Agribusiness is operated across twelve broad-acre land assets (10,000 ha.) owned or vested in the corporation. These lands support a large mixed farming enterprise, encompassing livestock, plantation, grain and fodder. These form integrated components of the land management business, with each enterprise providing support services to Gippsland Water in the provision of sustainable water and wastewater services to the region.

Gippsland Water's long term Agribusiness plan includes among other things:

- development of a robust agribusiness built around holistic farming practices focusing on sustainability and flexibility providing greater profitability;
- building a livestock enterprise and management systems to match stocking rate to carrying capacity, minimising climatic risk;
- continuing to develop sustainable fodder and grain cropping enterprises while maintaining the ability to capitalise on ever changing market conditions; and
- weed management and land reclamation projects including removal of noxious weeds and the levelling of previously excavated spiny rush earth stockpiles.

These initiatives seek to develop a sustainable business that actively manages ongoing climatic risk but maintains the flexibility to capitalise on changing market conditions. Livestock and cropping activities both remain important to the business but the mix of these will need to have the ability to change at short notice to capitalise on market opportunities and deliver consistent profitability.

Table 8.10: Agribusiness Revenue And Expenditure Summary ($ Jan 13 – millions)

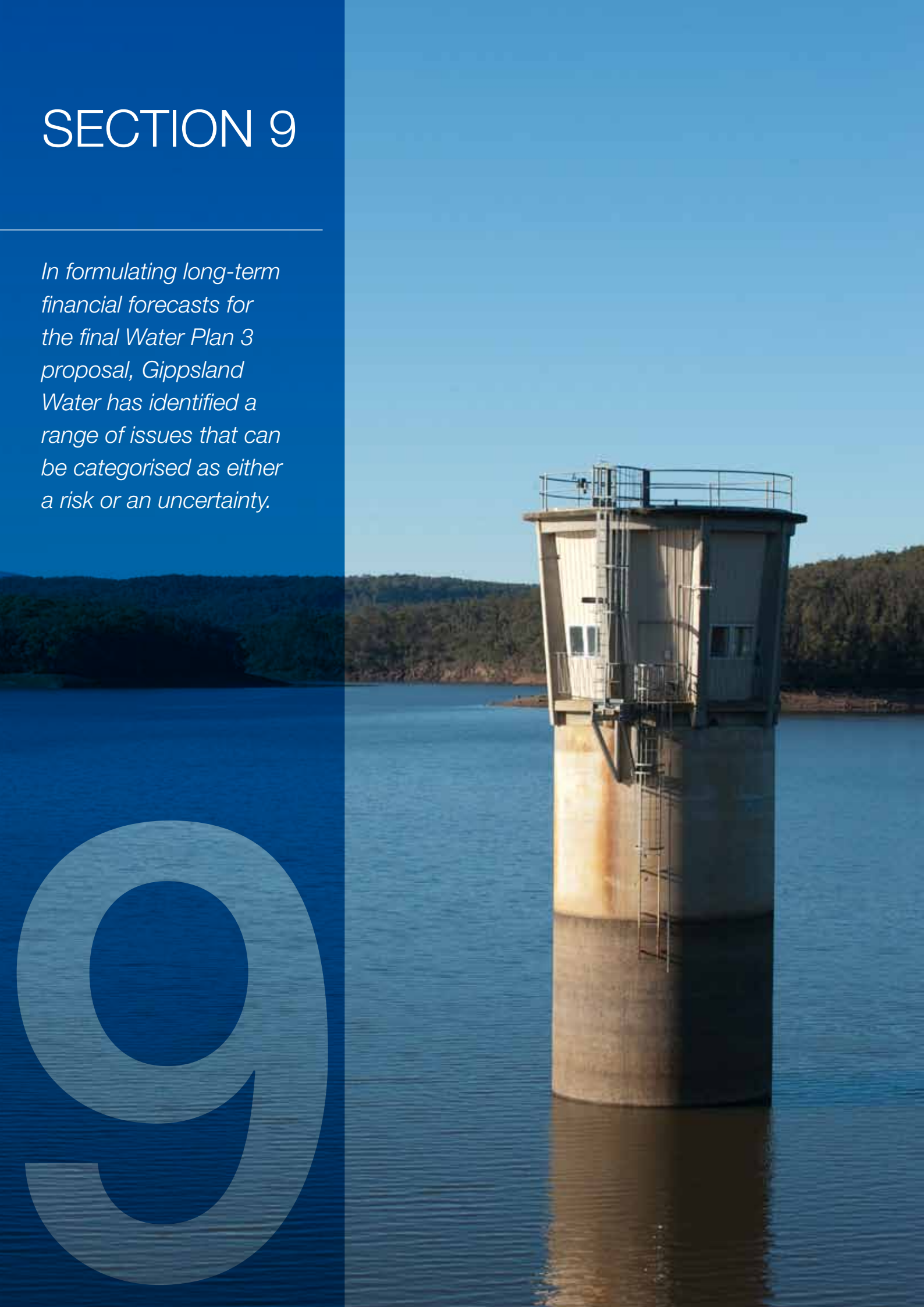
Activity	12/13	13/14	14/15	15/16	16/17	17/18
Revenue	2.42	2.71	2.95	3.38	3.61	3.38
Operational Expenditure	2.45	2.23	2.41	2.56	2.62	2.51
Capital Expenditure	0.45	0.28	0.72	0.63	0.28	0.35

8.8.3 The Allocation Of Shared Costs Between Regulated And Unregulated Services

Gippsland Water allocates corporate costs across the SORF and the Agribusiness activities. Allocations are made on the basis that each of the unregulated activities is an independent stand-alone business. At present, the SORF attracts an allocation of $170,000 per annum, while Agribusiness attracts an allocation of $130,000 per annum.

SECTION 9

In formulating long-term financial forecasts for the final Water Plan 3 proposal, Gippsland Water has identified a range of issues that can be categorised as either a risk or an uncertainty.



ALLOCATING AND MANAGING RISK

9.1 RISK MANAGEMENT

Gippsland Water has implemented a consolidated business wide Risk Management Framework that aligns with the Victorian Government Risk Management Framework and AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines, released during 2009.

Gippsland Water's Risk Management Framework is detailed within the Risk Management Strategy and Risk Management Policy. The Risk Management Procedure documents the adopted risk management processes that involve a systematic and inclusive approach to managing risk from a 'whole of business' perspective. Additionally, each risk is also aligned with Gippsland Water's Strategic Plan.

Risk management resources are accessible to all Gippsland Water personnel to ensure consistency when identifying future events or operational changes that could impact on organisational objectives. Identifying and assessing risks and the controls in place, assists Gippsland Water to effectively decide if further risk treatment is required to achieve an acceptable level of risk.

To strengthen the risk management process, Gippsland Water has developed a strong governance structure that actively engages the Board, Audit Committee, Risk Management Committee, departmental management and key staff on a quarterly basis to review Gippsland Water's operating environment and risk profile.

Gippsland Water's quarterly review process incorporates business continuity planning and incident reviews. Each quarter, the review focuses on a different aspect of risk management (risk register, controls and actions, business continuity or incident management review).

Gippsland Water's Risk Management Committee meets quarterly following the completion of the organisational risk management review and receives reports on the internal control self assessments completed, completed risk action items and items raised in relation to incidents and business continuity.

The outcomes from each quarterly risk management review process are reported to Gippsland Water's Audit Committee for endorsement and Gippsland Water's Board for final approval. The Audit Committee and Board also receive reports of inherent 'very high', and controlled 'very high' and 'high' risk levels on a quarterly basis to assure risk control and compliance. In addition, Gippsland Water's whole of business risk register is provided to the Audit Committee and Board quarterly.

Gippsland Water also maintains an Emerging Risk Register. The Emerging Risk Register is a tool that enables the corporation to forecast, track and manage emerging risks that may impact it. Responsibilities for each emerging risk are allocated and monitored.

9.2 BUSINESS CONTINUITY

Gippsland Water's Business Continuity Policy outlines the corporation's approach to the identification, development, approval and review of business continuity plans. The foundation of Gippsland Water's business continuity framework is based on the continuation of services to customers. The critical business processes in the event of a crisis have been identified by the corporation as follows:

- supply of water and wastewater services to Gippsland Water customers;
- supply of water services to power and other essential industry; and
- supply of wastewater services to power and other essential industry.

The resources required by the corporation to reinstate the critical business processes above are detailed in consequence scenarios and include:

- Staff/contractor welfare
- Premises equipment – denial of access
- Premises equipment – partially/fully lost or destroyed
- Information systems
- Voice communications
- Other

Gippsland Water has chosen to manage business continuity risk by focusing on mitigation of the consequences rather than mitigation of actual incidents. The link between the critical business processes and consequence scenarios form the framework for the business continuity plan, as depicted in Table 9.1 below.

Table 9.1: Critical Business Processes - Consequence Scenario Link

Critical Business Processes / Consequence Scenarios	Customer Focus		
	Supply of water and wastewater services to residential customers	Supply of water to power and other essential industry	Supply of wastewater services to power and other essential industry
Staff/contractor welfare	The business continuity plans will detail each workgroup's procedures/processes to address each critical business processes for each applicable consequence scenario.		
Premises equipment – denial of access			
Premises equipment – partially/fully lost or destroyed			
Information systems			
Voice communications			
Other			

To ensure the business continuity framework reflects current day business realities, relevance and continued application, annual reviews are conducted involving applicable senior management associated with the business processes. Gippsland Water has a legislative requirement to perform 'live' exercises in the areas of terrorism, environment and emergency management, and the testing of elements of each business continuity plan will be incorporated into these exercises.

9.3 RISK, UNCERTAINTY AND LONG TERM FINANCIAL FORECASTS

The ESC notes in its 2013 Water Price Review Guidance Paper that –

"The term risk is often used loosely. We consider it useful to distinguish between risk and uncertainty."

- Risk - is the known probability and consequence (either positive or negative) of a particular outcome occurring.
- Uncertainty - arises where the probability of an event is unknown.

In formulating long-term financial forecasts for the final Water Plan 3 proposal, Gippsland Water has identified a range of issues that can be categorised as either a risk or an uncertainty.

9.3.1 Risks – Known Probability And Consequence

a) Carbon price flow through on chemicals and other good and services

From a financial forecasting perspective, Gippsland Water knows that the prices of chemicals and other goods and services will increase as the impact of the Federal Government's carbon price works its way through the Victorian economy. The consequence will clearly be increases in operating costs that should be reflected in water and wastewater tariffs. Gippsland Water has elected not to try and estimate these impacts, particularly when major suppliers are unable to provide advice on the matter. This remains a significant financial risk.

b) New Customer Contribution (NCC) regime changes

At the time of developing this final Water Plan 3 proposal, the ESC has flagged major changes to the NCC regime. While Gippsland Water knows the current regime will change, details remain unclear. From a Gippsland Water perspective, consequences of the new regime include:

- severely limiting the corporation's ability to apply scheduled and non-scheduled charges in the future;
- significantly increasing shared asset capital expenditure projections for the third regulatory period (given current estimates include an expectation that developers will contribute to assets developed out of sequence); and
- increasing general water and wastewater tariffs to offset NCC revenue currently included in this plan.

The impact this will have on future new customer contributions remains a significant financial risk.

9.3.2 Uncertainty - Where The Probability Of An Event Is Unknown.

a) Forecast connections growth

In the period between formulating Gippsland Water's draft and final Water Plan 3 proposals, Gippsland Water has updated all connection forecast models with actuals data for the period to 30 June 2012. This data indicates that a slowdown in the rate of connections occurred during the January to June 2012 period. While baseline data has been adjusted for actual connections, Gippsland Water has elected not to amend forecasts for future annual connections growth. The slowdown has been treated as a short-term aberration, for now. Gippsland Water remains uncertain as to whether this trend will continue. The corporation will continue to watch new connections growth and may elect to amend forecasts during the ESC's review process.

b) Residential consumption forecasts

Residential consumption has been volatile for several years. With both 2010/11 and 2011/12 being very wet years, demand forecasts remain subject to significant uncertainty. A significant level of uncertainty surrounds how customers will respond as climatic conditions return to more average rainfalls. In addition, there remains significant uncertainty as to whether a return to dry climatic conditions will occur during the five years of the third regulatory period. Given these uncertainties, Gippsland Water has elected to forecast demand at expected upper demand boundaries (refer chapter 6). This uncertainty presents as a significant financial risk given that for every one kilolitre reduction in demand, residential volumetric water revenue will reduce by $125,000 per annum.

It should be noted that while the same can be said of non-residential consumption forecasts, the financial implications are not as severe.

c) Contingency for major events

During the first and second regulatory periods, Gippsland Water was required to fund responses to a range of major events, such as managing emergencies (both bushfires and floods), as well as the purchase of additional water during the 2006/07 drought. As one example, Gippsland Water spent $0.4M during 2006/07 to purchase 5,550ML of water in Blue Rock Reservoir. At current prices this same purchase would now cost approximately $8.3M.

Given the level of uncertainty about both the likelihood and consequence of these types of events, Gippsland Water has not included any funding for major events in the final Water Plan 3 proposal.

d) Unfunded Superannuation Liability Contributions

In June 2012, Gippsland Water was required to record a liability $4.6M associated with the Local Authorities Superannuation Fund (LASF) Defined Benefit Plan. This was the second call made during the second regulatory period; and was Gippsland Water's share of a total unfunded liability of $453M, net of contributions tax.

In accordance with the Superannuation Industry (Supervision) Act 1993, actuarial investigations are required at intervals of not more than three years. The fund trustee has advised that future experience may be better or worse than expected. If experience is worse than expected, then the trustee is likely to require additional top-up contributions. Gippsland Water has not provided for any top-up contributions in this final Water Plan 3 proposal.

e) Closure of Major Customers

In July 2011, the Federal Government announced its plan to implement a voluntary Contract for Closure Program as part of the Clean Energy Future Package. In Dec 2011, the Federal Government confirmed that five power generators across Australia were 'invited to proceed to the negotiation stage'.

This invitation was extended to three of Gippsland Water's major customers - International Power Hazelwood, Energy Brix Australia and TRUenergy Yallourn. The Federal Government intended to enter into any Contracts for Closure by June 2012. While the Federal Government's preferred closure timeframe was from July 2016 to June 2020, proposals for closure prior to July 2016 were to be considered. In early September 2012, the Federal Government announced that it had abandoned the Contract for Closure Program.

In late June 2012 the Federal Government announced a $50M bailout package for Energy Brix Australia in a bid to maintain briquette supplies for 50 businesses that employ 2500 people. The two-year restructuring package for Energy Brix Australia will allow the company to maintain briquette production while regional businesses that rely on its brown coal briquettes make the transition to a cleaner fuel source. The bailout package does not provide support for the power production component of the company's operations. As of July 2012, Energy Brix Australia downsized operations to 1 boiler and 1 turbine (from 5 turbines) which reduced their overall capacity significantly. Reductions in water consumption are expected to be significant, but are yet to be confirmed.

While Gippsland Water has made provision for some changes in its major customer demands in this final Water Plan 3 proposal, considerable uncertainty remains as to whether additional closures to those forecast will occur during the third regulatory period, despite the Federal Government abandoning the Contract for Closure Program.

SECTION 10

Gippsland Water must strive to deliver what has been approved during the regulatory period.

10

OUTCOMES FROM THE SECOND REGULATORY PERIOD

10.1 OUTCOMES FROM THE SECOND REGULATORY PERIOD

The ESC approved prices for the second regulatory period in June 2008. The ESC's Gippsland Water Determination outlined a number of key assumptions upon which the approved price path was based. Included in these assumptions were expectations around levels of operational expenditure, capital expenditure (including key capital projects), demand forecasts and service standards for the second regulatory period.

For comparative purposes, a number of these expectations are outlined below, and compared with actual results during the period. Performance against service standards established for the second regulatory period is outlined in chapter 3 of this Plan and is not repeated below.

While these comparisons are provided for information, it should be noted that Gippsland Water is not restricted by the operational or capital expenditure profile approved by the ESC. Like all water corporations, Gippsland Water must strive to deliver what has been approved during the regulatory period. However, water corporations must also remain vigilant and implement changes to proposed plans where it is prudent and efficient to do so.

10.2 OPERATIONAL EXPENDITURE

The ESC approved a total of $263.06M ($ Jan 07) in operational expenditure for Gippsland Water during the second regulatory period. Gippsland Water's current operational expenditure projection, based on actuals for the four year period to June 2012, and our current estimate for the 2012/13 financial year is outlined in table 10.1. Gippsland Water expects to complete the second regulatory period with total actual operational expenditure $8.58M ($ of day) in excess of the total approved by the ESC for the second regulatory period.

Table 10.1: Overview Of Operating Expenditure ($M)

Description	08/09	09/10	10/11	11/12	12/13	Total
Approved ($ Jan 07)	49.66	53.17	52.88	53.49	53.86	263.06
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817	
Approved ($ of Day)	53.03	58.18	59.53	62.22	63.65	296.60
Actual Spend ($ of Day)	45.80	47.01	65.41	74.50	72.46	305.18
Variation ($ of Day)	(7.22)	(11.17)	5.88	12.28	8.81	8.58

Note: 12/13 'actual' value is Gippsland Water's current estimate

As table 10.1 outlines however, significant variations exist on a year by year basis. Operational expenditure fell well below expectations in both the 2008/09 and 2009/10 financial years. The main drivers for this significant under expenditure were the delay in the completion of construction, and commencement of operations at the GWF; and the inability at times during this period to fill staff vacancies, due in the main to skills shortages (technical roles) or an inability to match pay and conditions offered by other employers within the region, or in other parts of Australia.

The main driver for the increase in 2010/11 was the requirement to record significant repairs to the GWF Anaerobic Lagoons as operating expenditure. The large increase in operational expenditure in 2011/12 comprises two main drivers, a requirement to record a significant unfunded superannuation liability; and a significant increase in operating costs at the GWF, including additional contract labour requirements, additional major maintenance requirements, increases in biosolids volumes requiring treatment and additional transport costs.

Gippsland Water's estimate for 2012/13 includes the expectation that operational costs for the GWF will continue to be more than originally proposed for the second regulatory period. In addition, the number of labour FTE positions has increased to ensure the business as usual activities of the corporation can be maintained. No further unfunded superannuation liability has been included in the estimate for 2012/13.

10.3 CAPITAL EXPENDITURE

The ESC approved a total of $232.95M ($ Jan 07) in capital expenditure for Gippsland Water during the second regulatory period. Gippsland Water's current projection, based on actuals for the four year period to June 2012, and current estimate for the 2012/13 financial year is outlined in Table 10.2 below. Gippsland Water expects to complete the second regulatory period with total capital expenditure some $13.42M ($ of day) in excess of the total approved by the ESC.

Table 10.2: Overview Of Capital Expenditure ($M)

Description	08/09	09/10	10/11	11/12	12/13	Total
Approved ($ Jan 07)	83.64	30.58	41.57	34.04	43.12	232.95
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817	
Approved ($ of Day)	89.31	33.46	46.80	39.60	50.95	260.12
Actual Spend ($ of Day)	85.44	33.71	48.20	39.40	66.79	273.54
Variation($ of Day)	(3.87)	0.25	1.41	(0.20)	15.84	13.42

Note: 12/13 'actual' value is Gippsland Water's current estimate

10.4 KEY CAPITAL PROJECTS

The Gippsland Water determination outlined a number of key capital projects. Details on progress towards completion of several of these projects are outlined below.

The capital expenditure required for completion of the GWF was the largest single expenditure in the capital profile approved by the ESC. The expenditure included in the second regulatory period represented only that portion expected to occur after July 2008. A discussion has been provided in chapter 8 in relation to GWF and is not repeated here. Table 10.3 outlines the original capital provision for the second regulatory period and actual costs as they were incurred.

Table 10.3: Gippsland Water Factory (Including Micro Hydro / Bio Gas Projects) ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	47.30	Nil	Nil	Nil	Nil
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	50.50	Nil	Nil	Nil	Nil
Actual Spend ($ of Day)	66.89	11.73	16.79	Nil	Nil

During the ESC review of proposed capital expenditure for the second regulatory period, the ESC removed $38M from Gippsland Water's proposal for the Loch Sport Sewerage Scheme. The capital expenditure remaining was to allow Gippsland Water to progress the project using only funds provided by government. A discussion has been provided in chapter 5 in relation to progress on the Loch Sport Sewerage Scheme and is not repeated here. Table 10.4 outlines the original capital provision for the second regulatory period and actual costs as they were incurred. An additional $32.3M is proposed to complete the Loch Sport Sewerage Scheme in third regulatory period.

Table 10.4: Loch Sport Sewerage Scheme ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	0.48	0.48	6.79	Nil	Nil
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	0.51	0.52	7.64	Nil	Nil
Actual Spend ($ of Day)	Nil	Nil	0.32	0.88	6.25*

Note: 12/13 value is current estimate

The capital expenditure required for completion of the Coongulla/Glenmaggie Sewerage Scheme was the second largest single expenditure in the capital expenditure profile approved by the ESC. A discussion has been provided in chapter 5 in relation to progress on the Coongulla/Glenmaggie Sewerage Scheme and is not repeated here. Table 10.5 outlines the original capital provision for the second regulatory period and actual costs as they were incurred. An additional $2.8M is proposed to complete the Coongulla/Glenmaggie Sewerage Scheme in the third regulatory period.

Table 10.5: Coongulla/Glenmaggie Sewerage Scheme ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	0.15	0.18	3.00	6.67	11.27
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	0.16	0.20	3.37	7.76	13.32
Actual Spend ($ of Day)	Nil	Nil	0.73	5.69	13.74*

Note: 12/13 value is current estimate

The Warragul to Moe Water Supply Interconnect was a two-stage project connecting water supplies between Moe and Warragul to allow for future population growth and improve long-term water supply security. The funding approved by the ESC (refer table 10.6) was initially expected to fund both stages:

- Yarragon to Darnum
- Darnum to Warragul

Gippsland Water has recently completed stage one of this project. Stage one consisted of connecting the water supply from Yarragon to Darnum. Stage one has allowed 1.2 million litres of water used in Darnum each day to be supplied from the Moe Water Treatment Plant. The costs incurred to complete stage one are also outlined in table 10.6.

Stage two of the project will see Darnum connected to the Warragul water supply system via a new, larger diameter pipeline. Once completed, the Warragul and Moe water supply systems will be fully connected. An additional $8.9M is proposed to complete stage two of this project in the third regulatory period.

Table 10.6: Warragul – Moe Interconnection Project ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	0.09	0.37	3.40	0.68	2.30
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	0.10	0.40	3.83	0.79	2.72
Actual Spend ($ of Day)	Nil	Nil	3.71	1.95	0.25*

Note: 12/13 value is current estimate

10.5 KEY CAPITAL PROGRAMS

The Gippsland Water determination also outlined a number of key capital programs. These programs are ongoing, rather than one-off in nature. Details of capital expenditure approved by the ESC and actual expenditure incurred by Gippsland Water are outlined below together with a brief summary of the programs.

Gippsland Water has more than 2,000 kilometres of water reticulation pipes. A long term rolling renewal program is developed to ensure that water pipes are in good working order and that levels of service can be maintained. As outlined in table 10.7, Gippsland Water has spent approximately $2M per annum on this program.

Table 10.7: Water Reticulation System Renewals Program ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	2.10	2.10	2.10	2.10	2.10
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	2.24	2.29	2.36	2.44	2.48
Actual Spend ($ of Day)	2.05	2.15	1.80	2.54	2.03*

Note: 12/13 value is current expected estimate

Gippsland Water has a significant number of sewer pump stations located across the region. Gippsland Water has a comprehensive process that ensures that the condition, criticality and performance of these sewer pump stations are routinely measured and monitored, and a long-term program for the maintenance and upgrade/replacement of the sewer pump stations is developed to ensure that the sewer systems continue to operate at the required levels of service for customers.

Table 10.8: Sewer Pump Station Rehabilitation and Improvement Program ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	2.00	2.00	2.00	2.00	2.00
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	2.13	2.19	2.25	2.33	2.36
Actual Spend ($ of Day)	1.74	1.5	1.83	1.15	1.77*

Note: 12/13 value is current estimate

Gippsland Water supports future development in the region by investing in major new water and wastewater infrastructure when it is required. Large infrastructure assets that will be utilised by more than one existing or new development are called ‘shared assets’. Gippsland Water provides major treatment plants, headworks and outfall; and shared assets that have sufficient capacity to meet future demand taking into account a long-term planning horizon. Expenditure in this area fluctuates significantly as new developments are impacted by changes in underlying economic conditions.

Table 10.9: Shared Assets ($M)

Description	08/09	09/10	10/11	11/12	12/13
Approved ($ Jan 07)	Nil	0.20	1.40	1.30	4.00
CPI factor	1.0678	1.0941	1.1257	1.1633	1.1817
Approved ($ of Day)	Nil	.22	1.42	1.51	4.72
Actual Spend ($ of Day)	Nil	0.10	0.93	2.92	3.21*

Note: 12/13 value is current estimate

10.6 DEMAND FORECASTS

The tables below outline a range of approved demand forecast values in relation to water connections, wastewater connections and water consumption. Actual results are provided for comparative purposes.

Table 10.10: Residential Water Connections - Total

Description	08/09	09/10	10/11	11/12	12/13
Approved	54,349	55,200	56,066	56,945	57,838
Actual	55,494	56,768	57,911	58,646	NA
Variation	+1,145	+1,568	+1,845	+1,701	

Table 10.11: Non-residential Water Connections - Total

Description	08/09	09/10	10/11	11/12	12/13
Approved	5,634	5,658	5,682	5,705	5,728
Actual	5,617	5,649	5,677	5,715	NA
Variation	-17	-9	-5	+10	

Table 10.12: Residential Wastewater Connections - Total

Description	08/09	09/10	10/11	11/12	12/13
Approved	46,304	47,044	47,797	48,562	49,339
Actual	47,395	48,606	49,759	50,461	NA
Variation	+1,091	+1,562	+1,960	+1,899	

Table 10.13: Non-residential Wastewater Connections - Total

Description	08/09	09/10	10/11	11/12	12/13
Approved	4,903	4,924	4,944	4,964	4,984
Actual	4,880	4,886	4,931	4,956	NA
Variation	-23	-38	-13	-8	

Table 10.14: Residential Water Consumption (ML)

Description	08/09	09/10	10/11	11/12	12/13
Approved	10,448	10,253	10,062	9,875	9,692
Actual	10,579	10,146	9,367	9,573	NA
Variation	+131	-107	-695	-302	

Table 10.15: Non-residential Water Consumption (ML)

Description	08/09	09/10	10/11	11/12	12/13
Approved	2,751	2,762	2,773	2,783	2,793
Actual	2,311	2,057	1,826	1,810	NA
Variation	-440	-705	-947	-973	

Table 10.16: Major Customer Water Consumption (ML)

Description	08/09	09/10	10/11	11/12	12/13
Approved	45,471	47,271	47,471	47,671	47,871
Actual	44,908	43,631	43,757	45,763	NA
Variation	-563	-3,640	-3,714	-1,908	

APPENDICES

APPENDIX 1

ABBREVIATIONS

ADWG	Australian Drinking Water Guidelines
ANCOLD	Australian National Committee on Large Dams
BAU	Business As Usual
CCC	Customer Consultative Committee
CCP	Critical Control Points
CCTV	Closed Circuit Television
CPI	Consumer Price Index
CTWSS	Country Towns Water Supply and Sewerage Program
DoH	Department of Health
DPCD	Department of Planning and Community Development
DSE	Department of sustainability and Environment
EPA	Environment Protection Authority
EP Act	Environment Protection Act 1970
EREP	Environment and Resource Efficiency Plans
ESC	Essential Services Commission
GRSWS	Gippsland Region Sustainable Water Strategy
GSL	Guaranteed Service Levels
GWF	Gippsland Water Factory
ICT	Information, Communication and Technology
kL	Kilolitre
KPI	Key Performance Indicator
LASF	Local Authorities Superannuation Fund
MAD	Mean Absolute Deviation
ML	Megalitre
NCC	New Customer Contribution
QBTW	Quality Based Trade Waste Tariff
RAB	Regulatory Asset Base
ROS	Regional Outfall System
SCADA	Supervisory Control And Data Acquisition
SDWA	Safe Drinking Water Act 2003
SEPP (WoV)	State Environmental Protection Policies (Waters of Victoria)
SLA	Statistical Local Area
SORF	Soils and Organics Recycling Facility
SPS	Sewer Pump Station
TDS	Total Dissolved Solids
THM	Trihalomethanes
Vicpol	Victoria Police
VicWater	Victorian Water Industry Association
WACC	Weighted Average Cost of Capital
WIRO	Water Industry Regulatory Order 2003
WP2	Water Plan 2 (second regulatory period)
WP3	Water Plan 3 (third regulatory period)
WSDS	Water Supply Demand Strategy
WWTP	Waste Water Treatment Plant
WWTG	Waste Water Treatment Group

Source: Safe Drinking Water Act 2003 **Theme: Risk Management**	**Status: Current, new or amended.**	**Input from:**
Obligations: The Act requires water suppliers to supply drinking water that satisfies defined water quality standards. Water suppliers and water storage managers must continually anticipate and manage existing and emerging risks to drinking water supplies and disclose relevant information to the public. All water suppliers and water storage managers will be requested to have their risk management plans audited under the Act at least three times during the regulatory period commencing 1 July 2013.	Business as usual	Water Treatment Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	**What outcomes will be delivered in the third regulatory period?**	**Expenditure or initiatives aimed at meeting the obligation**	**Outline any consultation undertaken**
• DoH WP3 Guidance Note 14. • Compliance with the Safe Drinking Water Act 2003 and Regulations overall, include risk management plan requirements. • Compliance with ADWG principles, including, guideline values and health based targets. • SDWA, ADWG, ESC service level targets. – Water quality standards. – Security of supply. – CCP limits, monitoring and alarms (incl. filter turbidity, alarms reviews, SCADA upgrades to comply). – BAU activities as per DoH guidance note. – SDWA audit improvements identified. – Inspection and repair/ maintenance programs for water quality compliance (filters, storage and basins).	• Upgrades to ageing infrastructure. • Upgrades for compliance (activated carbon treatment for THM compliance). • Catchment risk assessments, geographic information system information. • Remote disinfection systems (upgrades, new) to ensure SDWA water quality standards. • All CCP will be alarmed and remotely accessed and monitored.	• Moe Water Treatment Plant upgrade (Security of supply and water quality standards – turbidity, E.coli). • Sale Water Treatment Plant (Security of Supply). • Tyers conduit (Security of Supply). • Maffra PAC (water quality standards THM). • Instrument upgrades and installation. • Risk management systems, alarms for CCP compliance. • Remote disinfection system upgrades and installation (water quality standards – E.coli).	• Internal - for Moe, Sale and Tyers systems. • Discussions with DoH personnel during 2011 indicated that no triplicate monitoring of turbidity and individual PLC would be required. • Discussions with DoH personnel during 2011 indicated that the expectation is “all CCPs are alarmed with availability via SCADA, so that CCP performance can be remotely monitored, and assessed over time”.

Source: Safe Drinking Water Act 2003 Theme: Water Quality Standards	Status: Current, new or amended.	Input from:
Obligations: By the end of the regulatory period commencing 1 July 2013 issues of recurrent non-compliance with the water quality standards in Schedule 2 to the Regulations are resolved. Where the TDS of drinking water supply regularly exceeds 1200 mg/L, remedial action should be taken during the regulatory period to reduce the concentration of TDS in the water. Ideally, the TDS of supplied water should be regularly below a TDS of 600 mg/L.	Business as usual	Water Treatment Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• As noted above. • TDS not expected to be an issue for Gippsland Water.	• Ongoing monitoring of systems for compliance.		

Source: Safe Drinking Water Act 2003 Theme: Water Quality Standards	Status: Current, new or amended.	Input from:
Obligation: By the end of the regulatory period commencing 1 July 2013, water suppliers will ensure that their water treatment operators meet the minimum competency requirements detailed in the best practice guidelines.	Business as usual	Water Treatment Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Compliance with the Victorian framework for water treatment operator competencies, best practice guidelines.	• Compliance with the best practice guidelines for minimum levels of competency for water treatment operators based on risk profile of catchment and plant (as per assessment process developed by DoH). • Ongoing training and skill development. • Ongoing review of microbial risk classification, gap analysis and treatment capability assessment and actions to comply.	• Training costs associated with compliance based on system risks and operator certification level required (Cert. 2, 3, or 4). • Process specific training to meet plant configuration requirements. • Competency based training to comply with ongoing training and skills development.	• Gippsland Water were represented on the working party to develop the guidelines. • Discussions with DoH personnel during 2011 re: the process for ongoing system reviews and independent certification of operators. • Annual reporting / update to DoH, three year total review, gap analysis and plan.

Source: Health (Fluoridation) Act 1973. (administered by the Department of Health) Theme: Fluoride Management and Rollout	Status: Current, new or amended.	Input from:
Obligation: Within the regulatory period commencing 1 July 2013 all fluoridation plants will be assessed for compliance against the Code and a works plan developed so that by the end of December 2015 all fluoridation plants are compliant with the Code. **Potential Obligation:** Fluoridation of water supply systems which service greater than 2000 customers.	Possible amendment from 1 July 2013	Water Treatment Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Rollout of fluoride dosing to water supply systems with more than 2,000 customers is not currently mandated by Department of Health (DoH). • Discussions with DoH personnel during 2011 indicated that it would be desirable for Gippsland Water to flag unfluoridated water supply systems of more than 2,000 customers as "potential" candidates.	• Rollout targets - Tyers, Heyfield, Mirboo North and Neerim South.	• Given no obligation exists to roll out fluoride to water supply systems with more than 2,000 customers, capital expenditure for the target towns listed has not been provided in this Plan. • Similarly, the recovery of this expenditure from DoH has not been factored in as contributions.	• Discussions with DoH personnel during 2011 indicated that net capital costs associated with fluoridation of water supply systems "will be paid to the authority out of moneys provided by parliament".

Source: Environment Protection Act 1970 (administered by the EPA) **Theme: General**	**Status: Current, new or amended.**	**Input from:**
Obligation: 1. Compliance with key legislation and Regulations (e.g. EP Act, SEPP (WoV), EP (Scheduled Premises and Exemptions) Regulations and licence conditions). 2. Implement the waste hierarchy for all relevant business activities. 3. Ensure efficient use of resources in business activities.	Business as usual	Environmental Governance Team and Wastewater Treatment Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	**What outcomes will be delivered in the third regulatory period?**	**Expenditure or initiatives aimed at meeting the obligation**	**Outline any consultation undertaken**
• Range of compliance requirements stemming from legislation, Regulations and Corporate Licence.	• Gippsland Water will continue to manage its statutory and regulatory obligations via its ISO 14001-accredited Environmental Management System. • WWTPs operated in a fashion to endeavour to meet all EPA Corporate Licence discharge license limits in the first instance, and to return to compliance at the earliest opportunity should temporary exceedence occur. • Water reuse options being reviewed continually with internal and external customers when opportunities identified. • Waste hierarchy implemented into all WWTG activities.	• Expenditure and initiatives outlined below are primarily implemented to meet these broad statutory obligations. • Wastewater Shared Asset capital expenditure of $11.7M during the period.	• Liaison with EPA Officers from Traralgon and Melbourne, to identify and implement improvements to meet current and emerging regulatory standards. • WWTP performance issues discussed with Environmental Consultative Committee. • Property developers as new developments proposed.

Source: Environment Protection Act 1970 (administered by the EPA) Theme: Sewerage Treatment and Disposal	Status: Current, new or amended.	Input from:
Obligation: 1. Continue monitoring, reporting and reducing discharge impacts and mixing zones. 2. Continue upgrade program for treatment plants. 3. Recycle reclaimed water in accordance with EPA and Department of Health guidelines. 4. Recycled water and its beneficial properties (e.g. water, nutrients) reused for higher value uses.	Business as usual	Environmental Governance Team, Wastewater Treatment Team and Asset Planning Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• 100% compliance with annual median discharge quality limits, as specified in EPA Corporate Licence CL62999. • Beneficial reuse of 10.3% treated wastewater. • Annual treatment plant minor capital / major maintenance review to prioritise projects according to risk.	• Ongoing monitoring of sewerage capacity and integrity to prioritise maintenance and repair. • Scheduled sampling and testing regimes for all WWTPs and receiving waterways. • Completion of modification to lagoons and irrigator purchase at Dutson for reuse of Sale/ Fulham treated wastewater. • Investigations continue at Drouin WWTP to reduce nitrogen loads to waterways. Drouin WWTP Stage 1 inlet SPS with screens. • Designs for Warragul and Drouin WWTP expansions.	• Water quality and ecosystem health monitoring programs informed by monitoring outcomes, to improve understanding of long-term impacts of discharge. • Sale/Fulham Irrigation Infrastructure - $1.3M capital expenditure. • Drouin Wastewater Treatment Plant Upgrade - $3.5M capital expenditure. • GWF membrane works - $5.0M capital expenditure.	• Works approval – EPA • Odour Buffer overlays – EPA and Councils • Work with Councils to place odour buffer overlay on planning scheme. • Work with EPA to develop Wet Weather Wastewater Discharge Guidance for lagoon-based WWTPs. • Customers will continue to be sought for reclaimed water products from WWTPs.

Source: Environment Protection Act 1970 (administered by the EPA) **Theme: Sludge and Biosolids Management**	**Status: Current, new or amended.**	**Input from:**
Obligation: 1. Implement plans to reuse 100% of biosolids and reduce existing stockpiles over time.	Business as usual	Environmental Governance Team, Wastewater Treatment Team and SORF Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	**What outcomes will be delivered in the third regulatory period?**	**Expenditure or initiatives aimed at meeting the obligation**	**Outline any consultation undertaken**
• Reuse 100% of biosolids.	• A Sludge and Biosolids Management Plan will be reviewed annually to schedule lagoon desludging activities and manage biosolids stabilisation processes. • Process Management Plan developed for each WWTP to identify sludge management requirements. • Quality assurance systems are being developed to assist in the production of bulk compost product (assisted by the EPA, Sustainability Victoria and Compost Victoria **(Unregulated SORF issue).**	• Complete quality assurance process. • Applied to EPA Hazwaste fund to support research and development of the SORF prescribed and non-prescribed waste streams. • Identify third part customers for bulk compost products. **(All unregulated SORF issues).**	• Consulting with the EPA, Compost Victoria, and Sustainability Victoria on compost management and reuse options. • Negotiating with potential customers for compost use options. • Negotiating with potential green waste suppliers to support processing of prescribed and non-prescribed waste. **(All unregulated SORF issues).**

Source: Environment Protection Act 1970 (administered by the EPA) Theme: Management of the Sewerage System	Status: Current, new or amended.	Input from:
Obligation: 1. Implement a risk-based improvement program for the sewerage system. 2. Implement sewerage backlog programs, including provision of sewerage in unsewered industrial areas.	Business as usual	Environmental Governance Team, Field Services Team and Asset Planning Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Operations and maintenance targets are set using ESC approved key performance indictors. Targets are set for: – Sewer blockages per 100km. – Average time to attend sewer spills and blockages. – Average time to rectify a sewer blockage. – Sewer spills contained within 5 hours.	• Gippsland Water has reduced ESC KPI 15 Sewer Blockages per 100kms from the WP2 target of 25 to the proposed WP3 target of 18. • Reticulated sewer preventative and reactive maintenance. • Camera inspection and smoke testing scheduled programs. • Sewer relining program. • Sewer backlog program. • Loch Sport Sewerage Scheme. • Coongulla/Glenmaggie Sewerage Scheme. • Construction of minor works to alleviate wet weather spills.	• Budgets have taken into consideration KPI targets, prior year expenditure, system performance, growth of the sewer reticulation network, maintenance data, and EPA Guidance Information. • Loch Sport - $32.3M. • Coongulla/Glenmaggie - $2.8M. • ROS upgrades - $9.7M. • Warragul – Hazel Creek trunk sewer - $4.9M. • Waste Retic upgrades - $5.1M. • Minor works - wet weather spills: – Traralgon - $2.5M. – Drouin trunk main - $1.4M. – Yarragon SPS - $0.4M. – Trafalgar SPS - $0.6M.	• Gippsland Water conducted community consultation during the establishment of its Water Plan 3 budget and targets. • Operations and maintenance targets are set in consultation with customers and the ESC. • Regular liaison meetings held with EPA.

Source: Environment Protection Act 1970 (administered by the EPA) Theme: Water Efficiency	Status: Current, new or amended.	Input from:
Obligation: 1. Work with communities and businesses to implement efficient water-use practices. 2. Comply with EREP obligations.	Business as usual	Environmental Governance Team, Communications Team and Customer Relations Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Discuss water saving practices and cleaner production processes with customers during regular water and waste audits, visits and meetings. • Continue WaterMAP program (100 customers).	• Promotion of Government Rebate Scheme for water efficient products. • Continue to build awareness of existing water efficiency programs. • Continued engagement with school water education programs including tours of the Vortex Centre at GWF with presentations on the water cycle, water recycling, and saving water. • Introduction of school Waterwise newsletter.	• No significant expenditure or initiatives planned for this business as usual activity.	• Ongoing ‘face to face’ discussions with customers during audits, visits and meetings. • Quarterly meetings with major customers. • ResourceSmart AuSSI Vic Schools Coordinator for Gippsland. • Gippsland Schools Environment Coordinators Network. • VicWater’s Special Interest Group - Communication.

Source: Environment Protection Act 1970 (administered by the EPA) Theme: Catchment, Waterway and Groundwater Management	Status: Current, new or amended.	Input from:
Obligation: 1. Implement environmental flows audit recommendations. 2. Implement irrigation drainage audit recommendations. 3. Managed aquifer recharge (MAR) schemes assessed and managed in accordance with EPA guidelines.	Business as usual	Environmental Governance Team and Catchment Management Team

What outcomes or minimum targets have been imposed, or how have target been set by Gippsland Water?	What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Irrigation drainage audit recommendations and Managed Aquifer Recharge (MAR) schemes not applicable to Gippsland Water. • Minimum environmental flows and monitoring requirements are outlined in a number of Bulk Entitlements to water held by Gippsland Water. • Outcomes of 2012 DoH audit of Gippsland Water's potable water risk management plans including catchment water quality risks under the Safe Drinking Water Act 2003.	• Gippsland Water will continue to monitor all environmental passing flows and water quality required under existing Bulk Entitlements. • DoH audit recommendations, which included management of water quality risks in potable water catchments, will be implemented in 2013 and beyond. • The Gippsland Water audit recommendations will be implemented, with water quality and quantity monitoring commitments continuing into 2013 and beyond.	• No significant expenditure or initiatives planned for this business as usual activity.	• Gippsland Water engages regularly with agency and community stakeholders, to identify potential risks to potable water catchment health, and share activities to mitigate risks identified.

Source: Minister for Water's Statement of Obligations (draft – August 2011) **Obligation: 4.1 - Customer Engagement**	**Status: Current or new.**	**Input from:**
What outcomes or minimum targets have been imposed, if any? The Corporation must develop and make available to the public: a. terms of reference for the role of customer committees; and b. open and transparent processes under which the Corporation will engage customers and the community in its planning processes to ensure that the services it provides reflect the needs and expectations of customers and the community. This includes having regard to any guidelines issued by the Minister for that purpose.	Business as usual	Communications Team

What outcomes will be delivered in the third regulatory period?	**Expenditure or initiatives aimed at meeting the obligation**	**Outline any consultation undertaken**
• Ongoing Customer Consultative Committee and Environment Committee engagement. • Web page established for Customer and Environment Consultative Committees. • Online customer feedback forum maintained. • Customer and community surveys. • Bi annual open days. • Community information sessions on major projects.	• Budget for the third regulatory period includes as business as usual expenditure for all projects.	• Extensive community consultation through consultative committees, mailed out surveys, online forums.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 4.3 – Information for Schools	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation must make available to schools in the area, educational material about sustainable water resource management including information on: a. water supply; b. sewerage and recycled water; c. water conservation and the efficient and responsible use of water; and d. integrated water cycle management.	Business as usual	Communications Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Educations sessions at the VORTEX. • Partner in the ResourceSmart AuSSI Vic to assist schools with their curriculum requirements. • Introduce a school waterwise newsletter. • Incorporate study design requirement of Year 11 and 12 Environmental Studies into GWF tour. • Gippsland Water is supporting the DSE's Schools Water Efficiency Program to provide schools with data loggers to monitor their water usage and incorporate that information into their school curriculum.	• Landscaping of the GWF grounds to incorporate an educational story walk depicting the history of the integrated water cycle management for Gippsland Water. Budget for the third regulatory period includes capital expenditure of $0.2M.	• Engaged and consulting with local schools and Gippsland Regional Waste Management Group.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 5.1 – Managing Risks	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation must develop and implement plans, systems and processes, having regard to the ISO31000:2009: Risk Management (or as amended) to ensure that risks associated with functions performed and services provided by the Corporation are identified, assessed, prioritised and managed.	Business as usual	Commercial Services Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Gippsland Water's current risk management framework is in alignment with ISO31000:2009. • Gippsland Water will continue to manage risks within this framework including risk reviews, control self assessments, business continuity planning and testing. • Review of current risk management software will occur during the third regulatory period.	• Each workgroup / department identifies their own risks and puts in place appropriate budgetary requirements to ensure those risks are accepted, mitigated or removed. • Budget for the third regulatory period includes operational expenditure for a full-time Risk and Insurance Officer who has responsibility for ensuring risk framework is adopted to manage risks appropriately.	• On a quarterly basis all managers are required to review their current risks and appropriate forums are held to discuss new risks, modifications to existing risks and remove any that are no longer relevant to the business. • Gippsland Water participates in the Water Industry Risk Management Forum which identifies risks within the industry and how corporations best manage these risks.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 5.2 – Managing Incidents and Emergencies	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation must develop an emergency management plan for incidents and emergencies covering all hazards and measures, including: a. the continuity of services; b. incidents resulting in waste discharges to the environment; c. a dam safety incident; d. a major Information and Communications Technology (ICT) incident; e. potential security risks, including but not limited to terrorist attacks; and f. risks to water quality.	Business as usual	Bulk Systems Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Exercises will be completed with regard to Emergency Management and Part 6 of the Terrorism (Community Protection) Act 2003. • Testing of the Business Continuity Plan and the Disaster Recovery Plan. • Increased levels of security awareness training for staff. • A higher level of preparedness to deal with incidents as they occur in the future.	• Budget for the third regulatory period includes operational expenditure of approximately $0.8M in the five year period. • Budget for the third regulatory period includes capital expenditure of $0.5M in the five year period.	• Consultation will continue with the DSE, Vicpol, security networks, Security and Emergency Management forums as required.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 5.3 – Dam Safety	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation must develop and implement processes to identify, assess, manage and prioritise improvements to, and periodically review the safety of, dams, including retarding basins and wastewater storages, operated by the Corporation. The Corporation must develop and implement a dam safety monitoring and surveillance program for each dam operated by the Corporation, consistent with the ANCOLD Guidelines.	Business as usual	Bulk Systems Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• All dams must remain compliant with the ANCOLD guidelines. • Ongoing compliance with the ANCOLD guidelines will require Gippsland Water to: – enhance its comprehensive dam safety monitoring and surveillance program; – continue annual dam inspections and perform five yearly comprehensive inspections; – monitor a comprehensive data recording program for all dam safety issues; – continue input into Business Continuity Plans; and – By 30 June every year, submit the dam safety works program to the DSE.	• Expenditure on Dam Safety is significant, and is reflected in both the day to day operating costs of the business, as well as the long term capital planning processes. • Budget for the third regulatory period includes operational expenditure of $3M in the five year period. • Budget for the third regulatory period includes capital expenditure of $2M in the five year period.	• Consultation continues with all major clients impacted by works or actions related to the major dams operated by Gippsland Water. • Forums with DSE and VicWater such as the Victorian Water Industry Dams Working Group allow Gippsland Water to keep up with industry changes. • The annual ANCOLD conference allows senior personnel to keep abreast of changes relating to dam safety.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 6.1 – Water Supply Demand Strategy	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? By 31st March 2012, and within each five yearly period thereafter, the Corporation must develop, in accordance with any written guidelines issued by the Secretary to the Department, a Water Supply Demand Strategy that identifies the best mix of measures to maintain a balance between the demand for water and the supply of water in cities and towns, including targets to guide investment in water efficiency and water reuse programs.	Business as usual	Asset Planning Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Projects identified as high priority in the WSDS have been risk ranked and included in the capital works program for the third regulatory period. • These include upgrades to the Moe water treatment plant, interconnection between Moe and Warragul water supply systems, purchase of additional Bulk Entitlement from Blue Rock and alternative water supply to Thorpdale.	• Budget for the third regulatory period includes approximately $13M in capital expenditure for these projects.	• Community and customer consultation was undertaken as part of the development of the WSDS, at three public consultation sessions. • Online consultation was also conducting using Gippsland Water's 'Share Your View' web site. Feedback was incorporated into the final WSDS.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 6.2 – Water Shortage Plans	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation must: a. develop a Water Shortage Plan that governs the management of the supply of water by the Corporation in any period of drought or when the supply of water is limited; b. not rely on the Minister declaring a water shortage and qualifying rights to water under the Water Act 1989 as an option for maintaining supplies as part of a Water Shortage Plan; c. comply with any guidelines issued by the Minister for the purpose of water shortage planning; and d. make its Water Shortage Plan available to the public, unless the Minister consents in writing to not making available a Plan or part of a Plan.	Business as usual	Asset Planning Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Gippsland Water has a comprehensive Drought Response Plan which will be reviewed during the third regulatory period if required. • Water supply availability is monitored on a monthly basis during winter, increasing to fortnightly and weekly over the summer period dependant on criticality of water supplies. • This will be continued through the third regulatory period.	Nil	None.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 7.1 - Managing Assets	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? a. The Corporation must develop and implement plans, systems and processes to manage its assets in ways which: maintain the standards and conditions of service: (i) specified by the Commission in a Code issued under section 4F of the Act; or (ii) included in a Water Plan and approved by the Commission; and b. minimise the overall whole of life cost of providing the service.	Business as usual	Asset Management Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Gippsland Water recently completed its Asset Management Policy, Framework and Strategy for short, medium and long-term to progress the journey towards advanced asset management. • Gippsland Water will continue to strengthen the Asset Management Information System and data over the third regulatory period.	• Budget for the third regulatory period includes $11.2M in capital expenditure allocated for water and wastewater reticulation renewals. • Specialised Asset Management Team now in place with operational expenditure from $1.3M- $1.5M per annum.	• Consultation undertaken as part of demand management strategy.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 7.5 – Sewerage Services to Unsewered Urban Areas	Status: Current or new.	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation needs to participate with municipal councils in the development of councils' Domestic wastewater management plans. When considering the types of sewerage services to be provided to unsewered urban areas, the Corporation must: a. consider fit for purpose service options; and b. identify the: (i) cost and benefits to the Corporation's customers and community; and (ii) risks to the Corporation.	Business as usual	Asset Planning Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Two new township sewerage schemes will be completed in the third regulatory period – Coongulla/Glenmaggie and Loch Sport. These projects have commenced during the second regulatory period and will be completed during the third regulatory period. • No additional small town sewerage schemes have been included in Gippsland Water's capital works program for the third regulatory period.	• Budget for the third regulatory period includes capital expenditure of: – Coongulla/Glenmaggie - $2.8M. – Loch Sport – $32.3M.	• Extensive community consultation has been held at Coongulla/Glenmaggie and Loch Sport through information days, fact sheets and direct mailout. • Ongoing discussion is held with relevant local councils to discuss other potential schemes.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 7.6 Sewerage Services to New Urban Areas	Status: Current or new	Input from:
What outcomes or minimum targets have been imposed, if any? When considering the types of sewerage services to be provided to new developments, the Corporation must: a. consider fit for purpose service options; b. identify the (i) costs and benefits to the Corporation's customers and community; and (ii) risks to the Corporation; and c. not agree to service options that unreasonably transfer costs from the developer to the Corporation's customers.	Business as usual	Property Services Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• All new developments within or in close proximity to existing sewered areas will require sewerage services, unless otherwise agreed to by Gippsland Water and the relevant local council. • The developer will be required to fund and build the sewerage services required. Gippsland Water will reimburse the developer in accordance with ESC shared asset arrangements. • All sewerage services will be gravity sewers; unless the developer can demonstrate to Gippsland Water's satisfaction that alternatives will provide a better long term triple bottom line result for the Corporation's customers and the community.	• Gippsland Water's operational expenditure includes a provision for staff to manage the assessment and monitoring of proposed sewerage works. • This expenditure includes an amount for external assistance to audit construction of these works.	• Gippsland Water has ongoing discussions with approved design consultants, who prepare designs for and supervise construction of the required works. • For larger developments, Gippsland Water participates in local council run consultation sessions relating to the development of Development Plan Overlays.

Source: Minister for Water's Statement of Obligations (draft – August 2011) Obligation: 7.8 – Trade Waste	Status: Current or new	Input from:
What outcomes or minimum targets have been imposed, if any? The Corporation must develop policies and practices to manage trade waste to: a. protect its sewerage systems, including treatment works and processes, and the health and safety of the public and of people working in or operating those systems; b. minimise environmental impacts consistent with any licence issued under the Environment Protection Act 1970; and c. facilitate recycling by ensuring that trade waste accepted does not present barriers to recycling or reuse of wastewater or biosolids.	Business as usual	Customer Relations Team

What outcomes will be delivered in the third regulatory period?	Expenditure or initiatives aimed at meeting the obligation	Outline any consultation undertaken
• Annual review and update of Trade Waste polices and practices. • Maintain a high level of Trade Waste Customers registered on Trade Waste Agreements > 95%. • Monitor Trade Waste compliance by: – Continuous monitoring of largest Trade Waste customers; – Comprehensive auditing of all major customers on a six monthly basis; and – Auditing of 25% of commercial Trade Waste customers per annum.	• Budget for operational expenditure for the third regulatory period includes equivalent of two full time Trade Waste personnel.	• Ongoing 'face to face' discussions with Trade Waste customers during audits. • Ongoing regular formal meetings with largest Trade Waste customers. • Gippsland Water will distribute recently produced Trade Waste booklet. • Recent Trade Waste Code and Charter consultation with ESC.

APPENDIX 5

PRUDENT AND EFFECTIVE LEVELS OF CAPITAL EXPENDITURE

Cost Drivers

There are four cost drivers for capital projects. These are:

- asset renewal – an asset in poor condition that is required to be replaced;
- growth – extending services as regional towns expand and more customers require services;
- service improvement – improving the quality of service to meet existing or future community needs; and
- compliance – projects required to ensure regulatory requirements are met.

Business needs are usually identified based on a primary driver. For example, replacing a wastewater treatment plant may be driven by the need for asset renewal. A project can have a secondary driver, which provides incentive to add value to the project. For example, the upgrade of the wastewater treatment plant during renewal to treat the wastewater to a higher standard would be driven by service improvement. A secondary driver can be combined with the primary driver to determine the project's overall priority.

Risk assessment and prioritisation

Business needs for capital projects are evaluated where appropriate, against risks in Gippsland Water's corporate risk register. The risk rating for an item in the risk register may sometimes be elevated if an issue is identified that exposes the corporation to increased risk. Projects to control the risk are then listed as action items in the risk register.

A risk-based prioritisation process is used to provide an initial priority listing of projects. Table A5.1 outlines the consequence matrix for risk evaluation. The failure modes of a system under stress are identified and evaluated against social, environmental and economic consequences which, when combined with likelihoods based upon the anticipated years to failure of the system, give a measure of risk reduction by the project.

Table A5.2 provides an example of this assessment for the Neerim South WWTP operational upgrades. The social, environmental and economic consequence scores are added then multiplied by the likelihood score for the risk before and after investment to generate a risk reduction score. The risk reduction is divided by the estimated project cost to give a prioritisation score, which is effectively risk reduction per dollar invested. Projects are then ranked by prioritisation score. The method gives appropriate value-for-money priority for small projects that often fall off priority listings when the absolute risk reduction is much lower than for large projects.

Engineering judgement is then used to review and refine the final ranking.

Table A5.1: Consequence Assessment Matrix

Social	None (0)	Insignificant (0.33)	Minor (1.67)	Moderate (6.67)	Major (16.67)	Catastrophic (33.33)
Loss of Service	No Impact	Small number of customers within minimal disruption	Small number of customers within significant disruption	Large number of customers with minimal disruption	Large number of customers with significant disruption	Large number of customers with prolonged disruption
Community and Culture	No Impact	Small Cultural Event Interrupted or Cultural Site Access Disrupted	Small Cultural Event Postponed or Cultural Site with Minor Damage	Large Cultural Event Interrupted or Cultural Site with Significant Damage	Large Cultural Event Postponed or a Cultural Site Destroyed	Large Cultural Event Cancelled or a Number of Significant Cultural Site Destroyed
Safety and Health	No Impact	None Life Threatening Injuries. No Medical Attention Required	Non Life Threatening Injuries. Medical Attention Required	Serious Injuries, Sickness. Hospitalising Required	Death or Multiple Serious Injuries. Hospitalising Required	Multiple Deaths or Widespread Illness. Hospitalising Required
Environment	**None (0)**	**Insignificant (0.33)**	**Minor (1.67)**	**Moderate (6.67)**	**Major (16.67)**	**Catastrophic (33.33)**
Damage to Land Air Flora Fauna	No Impact	Insignificant Damage Reversible within 1 week	Minor Widespread damage reversible within 3 months	Moderate Widespread damage reversible within 1 year	Serious Local damage reversible within 5 years	Serious Widespread damage not reversible
Economic	**None (0)**	**Insignificant (0.33)**	**Minor (1.67)**	**Moderate (6.67)**	**Major (16.67)**	**Catastrophic (33.33)**
Corporate Image	No Impact	Local Residents Only	Local Adverse Media Coverage	Community Wide Adverse Media Coverage	National Adverse Media Coverage	International Adverse Media Coverage. Public Investigation
Third Party Loses	No Impact	Minor Cost	Moderate Cost	Significant Cost	High Cost	Large Cost
Organisation total cost (fines revenue, repairs, costs, financial inefficiencies)	No Impact	Minor Cost	Moderate Cost	Significant Cost. No impact on other spending	High Cost. Impact on other spending	Large Cost. Likely to Impact Rates

Table A5.2: Priority assessment - Neerim South WWTP operational upgrades

Name of Project: **Neerim South WWTP Operational Upgrade** Business Driver: **Compliance** Cost of Project: **0.63($M)**
Database Number: **3713**
Project Number:
Timing Imperative: **2013** Total Δ Risk: **6.45** Prioritisation Value: **10.31**

Failure Modes	Consequences		Consequence Assessment			Likelihood Assessment	Risk	Ä Risk
			Soc	Env	Eco			
Failure of the treatment process	Non-compliant discharge to receiving waters	Pre	0	1.67	1.67	2	6.68	6.45
		Post	0	1.67	1.67	0.07	0.23	

Estimate Accuracy

Accurate cost estimating is undertaken for projects likely to exceed $2M. Consultants with specialist expertise in quantity surveying and major project construction are engaged for this purpose. Gippsland Water has used aQuenta Consulting Pty. Ltd. and UGL Limited to provide these services for strategic assessments on projects included in this Plan for the third regulatory period.

Base cost estimates included materials and services costs, design and project management, deliverability of the project and construction sequencing. A construction risk assessment evaluated contingencies using At Risk software to generate a cost with a P50 level of confidence, that is, the cost with a 50% probability that the actual cost is less than the estimate.

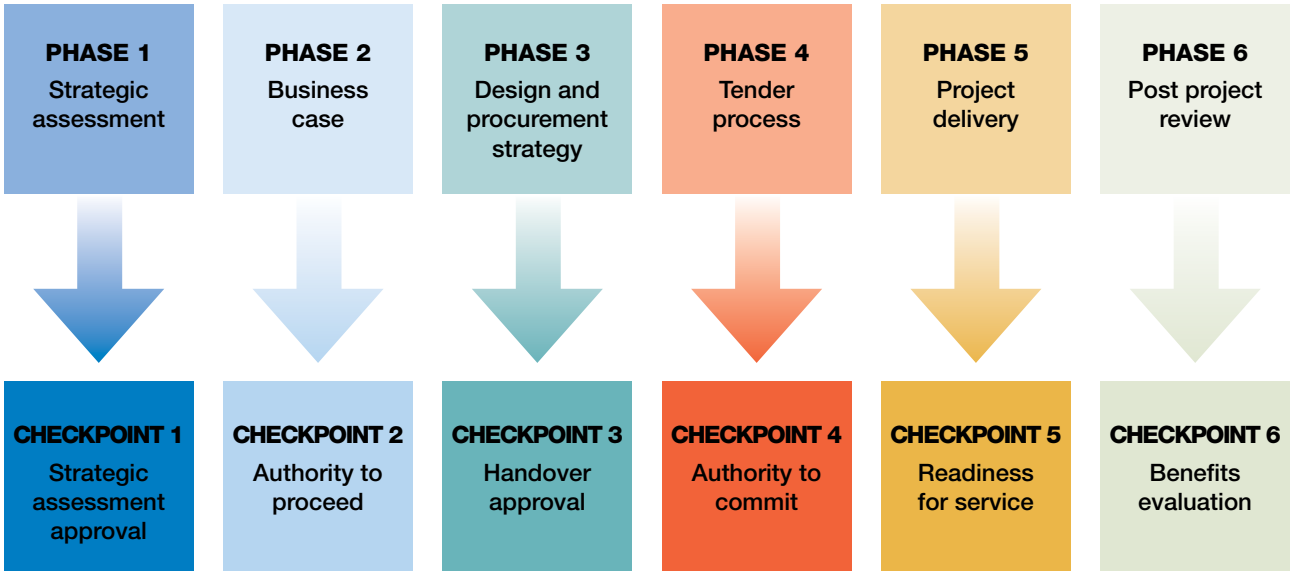
Projects likely to cost less than $2M are those of the type delivered on a regular basis such as pipe laying, storage tanks and pump stations. Gippsland Water's internal skills and the pricing skills of local construction contractors provide the most cost effective and accurate estimates for these projects.

Programs for minor capital works have been established with annual budgets based on historical needs to maintain assets to an approved level of service. In some instances, identified minor capital works projects were risk ranked and projects with risk levels of 'high' or above were included in the programs. When this process lead to a significant shift in the required expenditure for the program, the larger projects were separated from the program and assessed and prioritised against other major projects.

Investment Management Framework

Projects are developed through six phases (figure A5.1) once business needs have been established. Gippsland Water is currently part way through implementation of this process for capital projects.

Figure A5.1: Investment Management Framework



Phase 1: Strategic Assessment

This high level assessment is to determine whether the project can satisfy the business needs and to consider the options available.

The checkpoint one report will recommend progress to phase two, if warranted, and recommend the inclusion of the estimated cost into the Corporate Plan for the appropriate years. Approval is sought in accordance with Gippsland Water's Register of Delegations.

Phase 2: Business Case

This assessment identifies and provides a detailed analysis of the options. It provides a functional design and preliminary procurement strategy for the preferred solution. Included is a cost estimate to P50 confidence, a delivery schedule for achieving the timing imperatives for the project and its priority against other investments.

The business case comprises of:

1. a functional design including project objectives and drivers, the options considered and the preferred solution
2. financial, environmental and social assessment summaries of the preferred solution
3. the identification of whether planning approvals, land acquisition, easements, fauna and flora investigations and cultural heritage assessments are necessary for delivery of the project
4. estimated total project cost, including expenditure to date, forecast P50 cost estimate and the funding strategy (budget/unbudgeted) and
5. estimated cost to complete phases three and four.

Approval is sought via an Authority to Proceed, with approval in accordance with Gippsland Water's Register of Delegations.

Phase 3: Design and Procurement Strategy

The detailed design process is completed in this phase and includes development of a detailed strategy for delivering the project. A procurement strategy is also developed in this phase to identify the preferred means of tendering and delivering the project.

Phase 4: Tender Process

If the procurement strategy is to tender a single contract, the project officer, after tenders have been received from the market, will seek 'Authority to Commit' to contract in accordance with Gippsland Water's Register of Delegations.

If the procurement strategy is to tender multiple contracts, the project officer will seek 'Authority to Commit' for all intended contracts in accordance with the register of delegations prior to issue of tenders.

The 'Authority to Commit' will comprise of the following:

1. summary of the detailed procurement strategy;
2. the project cost estimate, based on either the tender price (single contract strategy) or the detailed procurement strategy;
3. summary of the tender review and recommended tenderer (if a single contract); and
4. funding strategy.

Phase 5: Project Delivery

The construction and installation of works to create Gippsland Water assets or the delivery of service changes is managed in this phase and includes delivery of documentation and manuals and training of operating staff. Assets are registered in Gippsland Water's asset management system.

Phase 6: Post Project Review

This phase is to review the finished product six to twelve months after completion to ensure that the project delivered the benefits and satisfied the objectives that were defined in the business case.

Gippsland Water
Hazelwood Road PO Box 348
Traralgon Vic 3844
www.gippswater.com.au