



**WESTERNPORT**  
WATER™

# Water Plan 3 (1 July 2013 to 30 June 2018)

Water Plan for public consultation

28/9/2012



## Table of Contents

1	Purpose of Water Plans .....	3
2	Executive Summary .....	7
3	Managing Risk.....	10
4	Service Outcomes .....	12
5	Operating Expenditure .....	18
6	Capital Expenditure .....	20
7	Revenue Requirement.....	23
8	Demand .....	24
9	Form of Price Control .....	30
10	Tariff Structures.....	31
11	Customer Consultation.....	39
	Appendix A - Compliance with our regulators .....	41
	Appendix B - Risk Assessment Table .....	45
	Appendix C – Capital Expenditure .....	47

## MESSAGE FROM THE MANAGING DIRECTOR

State-owned water corporations are responsible for providing drinking water to, and wastewater removal from, residential and commercial premises across Victoria at the lowest possible cost, yet highest level of availability, quality and reliability.

Our Water Plan (Water Plan 3) is provided to you, our customer and stakeholder, to understand the drivers of our business operations, and the pricing path that is required to implement our business plans over a five year period, commencing 1 July 2013.



The challenge for each water corporation is to deliver services that our customers require, with minimal or no price shocks. I believe Westernport Water is well placed to deliver this charter by virtue of the abundant rainfall in our region, relatively new water and sewer assets, and a committed workforce to deliver our products and services. However, our next Water Plan presents challenges for Westernport Water, as we seek to implement best practice in water quality, strive to minimise pollution of our storages and distribution networks, and continue to maintain our pristine environment. Westernport Water understands our customer base, and is well placed to manage growth in our region with multiple water sources and reliable reticulation system to meet current and future requirements across the rapidly growing service area.

This year we will embark on the expansion of Candowie Reservoir, located in the Bass Hills, to capture regular flood events in the adjoining rivers and streams, a plan that will provide certainty of water supply for the next 50 years.

The sustained wet periods we experience put our effluent capture and treatment under pressure, and coupled with significant inundation from low lying surface run-off, it threatens the ecological balance of each of our treatment plants. We will continue to work with land holders and building owners to identify sources of stormwater ingress entering our sewerage treatment plants to reduce excess inflow and load on our sewer treatment plants.

Westernport Water will aim to be the lowest cost supplier in a rapid-growth region, and will do this year on year. We will ensure our processes and systems are kept up to date with investments in new technologies, but we do not plan to embark on unsustainable capital works programs. We will strive for efficiency in ways that reduce the 'cost to serve' our customers. Water Plan 3 has given Westernport Water the opportunity to assess our abilities, meet our customers' expectations and moreover provide for regional growth into the future.

New technologies embraced by Westernport Water include introducing chloramination which reduces taste and odour and the necessity to continually chlorinate the water, as well as commissioning a new Class A wastewater treatment plant providing fit-for-purpose water to irrigate farms, gardens, recreation reserves, and flush toilets. These investments and more are aimed at providing a secure and sustainable water supply now and into the future, as well as improving the use of our treatment process by-products, and reducing our environmental footprint.

Two other ingredients needed to meet the ambitions of water corporations and their customers are effective metering, billing and payment systems, as well as accurate real-time performance data that can let us know what is going on at any time – day or night. These systems are currently being upgraded and when operating will give Westernport Water field staff, billing staff, and customers, ready access to information, and the opportunity to better respond and manage the reliability of our services.

This next Water Plan period presents exciting challenges and real opportunities to deliver improved services to our community.

The Water Plan will be made available from Friday 28 September 2012 for public comment, formal submissions are invited and we encourage our customers to contact us should they require further information on our Water Plan 3.

Easy to read fact sheets are also available on our website. These fact sheets provide summarised information on Water Plan 3:

- ◆ Tariff and Pricing Proposals
- ◆ Guaranteed Service Levels
- ◆ Capital Expenditure; and
- ◆ Our Water Supply Demand Strategy



Murray Jackson  
Managing Director

# 1 | Purpose of Water Plans

All Victorian water corporations must submit a five year business plan (Water Plan) to the Essential Services Commission (ESC) by September 2012. Water Plan 3 must cover the period from 1 July 2013 to 30 June 2018 and provide forecasts of pricing on regulated (water and waste) services, and key investments over the five year planning period. The ESC approves the prices that we will be able to charge for our services of the five year Water Plan period.

Westernport Water has developed the Water Plan for consultation with our customers, and other stakeholders.

The five year Water Plan (Water Plan 3) is based on developing plans to deliver our services to our customers, at the standard our customers expect, and provide those services at prices they are willing to pay. How is this achieved? Westernport Water has consulted with our customers on key proposals included in this Water Plan. Our customers have provided valuable feedback in relation to the quality and reliability of our products and services, through our annual customer satisfaction survey (Oct 2011) and recent consultation on this current Water Plan. The Water Plan focuses on providing continued support for regional growth, implementing strategic and productivity initiatives, and addressing and managing our business risks. Westernport Water has developed a suite of tariff structures that support these business plans over the five year planning period included in our Water Plan.

The information and forecasts contained in our Water Plan will be reviewed by the ESC for appropriateness, accuracy, and consistency with their guiding principles, to ensure that we are providing our customers and the community with value added products and services. The ESC regulates the water industry pricing to ensure that water corporations continue to operate efficiently, while planning for future growth.

Part of the ESC role is to regulate water industry tariffs by deciding whether to authorise the prices proposed in our Water Plan, by gauging the level of acceptance from customers. ESC will also be conducting workshops to consult with our customers on our Water Plan submission. Notification of these workshops will be in our local papers, as well as on the ESC website.

Westernport Water will make our Water Plan 3 document available for all customers on 28 September 2012, via our website.

Westernport Water will also provide opportunities for our customers to offer feedback on our Water Plan. Further consultation forums will be advertised in our local papers from October 2012.

## INTRODUCING WESTERNPORT WATER

Westernport Water is a not for profit corporation whose core function is to provide water and wastewater services wherever economically, environmentally and socially practicable to properties and communities throughout its service district. Westernport Water services more than 17,000 customers (and a peak population of more than 60,000) across an area of 300 square kilometres on Phillip Island and the mainland stretching from The Gurdies to Archies Creek.



Westernport Water has a diversified water supply with water sourced from the catchment supplying the Candowie Reservoir (located in the Bass Hills near Glen Forbes) via Tennent creek, the Bass River and groundwater bores from the Corinella Aquifer. All water is treated at the Ian Bartlett Water Purification Plant (“IBWPP”) at the Candowie Reservoir and then pumped to the San Remo Basin for distribution to customers within our district, with an average annual system demand of approximately 1,900ML (or 1.9GL).

Wastewater services are provided to approximately 90% of properties that receive water. Westernport Water has two wastewater treatment plants that process approximately 1,200 ML of domestic wastewater per annum. The principal plant on Phillip Island is the Cowes wastewater treatment plant (CWWTP), treating around 90% of the volume servicing Phillip Island and the township of San Remo.

The secondary plant, King Road Wastewater Treatment Plant (KRWWTTP), treats approximately 10% of the volume and is located in Coronet Bay, servicing the major townships of Corinella, Coronet Bay and Grantville located on the east coast of Westernport. Wastewater from the townships of Kilcunda and Dalyston is treated under an agreement with South Gippsland Water at their Wonthaggi treatment plant.

Westernport Water also provides the following products and services:

- ◆ **Recycled water** for new residential developments, agriculture and recreation reserves: Phillip Island Class A Recycled Water plant at the existing Cowes wastewater treatment plant (CWWTP) was commissioned in July 2012, and demand for this product has been included in our revenue forecasts. The sale of Class A water will offset demand on our drinking water supply, although the initial demand for recycled water is minimal but expected to grow as property developments progress;
- ◆ Removal of **minor trade wastes** (greasy waste): Westernport Water engages a specialist licensed operator under a commercial contract for the provision of greasy waste collection services;
- ◆ A **liquid waste disposal** facility at Cowes waste treatment plant;
- ◆ **Specialist advice** service on infrastructure and facility design for new developments;
- ◆ **Reticulated gas**: Westernport Water owns and operates a small (2.5km) Liquid Petroleum Gas (LPG) reticulation network in the San Remo area, trading as Westernport Water & Gas. Gas services are considered non-prescribed services, refer to Section 7;
- ◆ Supply of **lucerne and grass hay**, a by-product of our effluent and land management processes at King Road waste treatment plant: demonstrating to farmers that recycled water is a suitable and profitable option to grow high quality pasture.

Westernport Water has implemented a strategic management framework encompassing six key focus areas that drive our business - Governance, Products and Services, Assets, Community, Environment, and People. The diagram on the following page highlights these six key focus areas and our business objectives which we use to measure our success in delivering our business plans, in addition to the service performance targets proposed in [Section 4](#).



## Governance

- Plan for our future through strategic and business management;
- Driving fiscal responsibility throughout our business;
- Meeting our regulatory requirements;
- Identifying and mitigating risks impacting our business;
- Regularly finding ways to become more efficient.

## Products and Services

- Providing high quality drinking water;
- Optimisation of available water sources to deliver low cost water;
- Continually growing our business and service opportunities through innovation and alliance building;
- Provision of additional value add services aligned to our core business.

## Assets

- Understand our asset performance to support future business decisions;
- Develop and support robust preventative maintenance systems;
- Continue to improve asset performance and efficiency;
- Search out and incorporate proven assets and technology into the business.

## Community

- Fostering strong and positive relationships - partnerships with key stakeholders;
- Adding value to our community through the provision of resources, expertise and water related education;
- Providing timely, friendly and reliable customer service
- Continually gathering feedback and measuring the community's response to our products, services, and actions;
- Creating a community attitude and awareness of 'partnership'

## Environment

- Striving for efficient use of natural resources driving environmental efficiencies into our business decisions;
- Reusing wastewater and biosolids, and minimizing ocean outfall;
- Minimising negative impacts on our environment; and
- Improving biodiversity.

## People

- Continue investment in the development and safety of our people;
- Listen and respond to our people - encourage engagement and improve organisational performance;
- Embed a culture where change is anticipated and responded to, responsibility accepted and accountability delivered;
- Provide an environment of learning and innovation to provide continuous improvement to the management of our business;
- Enhance our reputation as an 'employer of choice'.

## 2 | Executive Summary

The following sections provide an overview of our Water Plan and the proposed inclusions to address the Essential Services Commission guidelines.

### MANAGING RISK AND UNCERTAINTY – [SECTION 3](#)

The Essential Service Commission (ESC) expects that strategic risk have been considered and sensitivity analysis has been performed on the key assumptions underpinning the development of operating and capital expenditure forecasts, and the resulting tariffs.

Westernport Water has implemented a risk based management framework to address the key assumptions which have a significant impact on our Water Plan 3 forecasts, including:

- ◆ Operating expenditure – refer to [Section 5](#);
- ◆ Key capital expenditure – refer to [Section 6](#);
- ◆ Demand forecasts and growth expectations – refer to [Section 8](#);
- ◆ New customers contributing via subdivisions and property development; and
- ◆ Impact on customers of proposed tariff structures required to support our services.

One of the key assumptions underpinning our Water Plan proposals is the expected level of demand for our services. Westernport Water forecast assumptions are supported by the *Victoria in the Future (2012)* publication issued by Department of Planning and Community Development, as well as the Bass Coast Shire Council's projections from Census data. Property (dwelling and population) growth in our region has continued to be strong over the last 10 years (average 2% growth each year), and we forecast that this level of growth will be maintained over the five year Water Plan period.

Operating expenditure forecasts have been assessed using a detailed tariff impact model. The operating plans are based on:

- ◆ Prudent and efficient 'business as usual' spend;
- ◆ Known changes in business as usual operating costs over the five year planning period; and
- ◆ New obligations resulting from changed legislation.

Further details on operating expenditure forecasts are included in [Section 5](#).

Development of the proposed tariff structures in our Water Plan have been based on historical data as well as impacts of forecast growth.

Further details on our risk management approach can be found in [Section 3 – managing risk](#).



## **CUSTOMER EXPECTATIONS ON SERVICE – [SECTION 4](#)**

Water corporations are expected to propose a set of Guaranteed Service Levels (GSLs) reflecting the most important aspects of service delivery as identified by customers.

Westernport Water conducted a survey to gauge our customer’s opinions regarding what they consider the most important aspects of the services we provide. The feedback received from our customers supports our proposed GSLs.

Westernport Water has included in the operating costs ([Section 5](#)) and capital investment programs ([Section 6](#)) actions to ensure we continue to meet our customer’s expectations on the quality and reliability of our water and sewer services.

Further details on our services and key performance measures are provided in [Section 4](#) – Service outcomes.

## **OPERATING OUR BUSINESS – SECTION 5, 6, 7**

Water corporations are required to develop simplified and cost reflective tariff structures in consultation with their customers.

The ESC has provided water corporations with a set of tariff assessment principles that were considered in developing our proposed tariffs.

The tariff structure and pricing path proposed by Westernport Water in Water Plan 3 delivers a sustainable revenue forecast to support the proposals included in our operating and capital programs.

Westernport Water proposes to remove the inclining block tariff (‘IBT’) which was implemented in our last water plan period. The anticipated impact on consumption behaviour was not realised as a result of implementing the IBT in Water Plan 2. Westernport Water is now proposing a return to a flat rate for consumption, and applying this rate across both residential and commercial customers. Feedback from our customer survey suggests our customers support this proposal.

Customers who will be using Class A recycled water (from July 2012) will be required to pay a small fixed annual access fee, as well as a recycled water usage tariff, which is lower than the standard drinking water usage charge. Recycled water is not for drinking, but will be utilised for toilet and outside use. The amount of Class A used is expected to be 23% of total annual household water use, for those residential customers connected to the recycled water network.

Further details on tariffs for Water Plan 3 are included in [Section 10](#).

## ASSUMPTIONS AND FORECASTS – SECTION 8 and 9

Key assumptions and forecasts that underpin our Water Plan 3 are detailed in [Section 8](#) (Demand) and [Section 9](#) (Form of Price Control).

In developing our demand forecast we have considered:

- ◆ Our region’s population, demographics, and new trends identified from census data;
- ◆ General and local economic conditions, including forecast growth;
- ◆ Historical data for customer demand and our ability to supply from our current multiple water sources; and
- ◆ Average consumption per property

The tariffs included in our Water Plan 3 have been developed under a ‘price cap’ structure. We feel that providing a smoothed capped price provides an easy to understand pricing structure for our customers, as well as provides ‘revenue certainty’ to fund our operations.

## PROPOSED TARIFFS – SECTION 10

Tariffs for Water Plan 3 include:

- ◆ Removal of Inclining Block Tariff (IBT) for usage charges;
- ◆ Return to a flat usage charge;
- ◆ The same usage charge for residential and commercial customers;
- ◆ Changing the mix of fixed and variable charges; and
- ◆ Realigning unconnected vacant land charges to 50% of connected land charges.

To implement our proposed changes, and provide sufficient revenue to recover our costs of operating, we are proposing in our Water Plan, an average price increase of 3% (excluding CPI annual inflation) over the five year Water Plan period, commencing 1 July 2013.

## CUSTOMER CONSULTATION – SECTION 11

Water corporations are expected to undertake broader and more in depth consultation with customers during the development of Water Plan 3, compared with past price reviews.

Westernport Water has significantly increased our presence in the community in the lead up to the development of our Water Plan. A number of public forums, attendance by executives and staff at community group meetings, and provision of information booths have provided many opportunities for our customers to engage with us. The customer feedback received to date indicates that our customers are relatively happy with our services, and are supportive of our Water Plan proposals.

Further details on our customer consultation can be found in [Section 11](#).

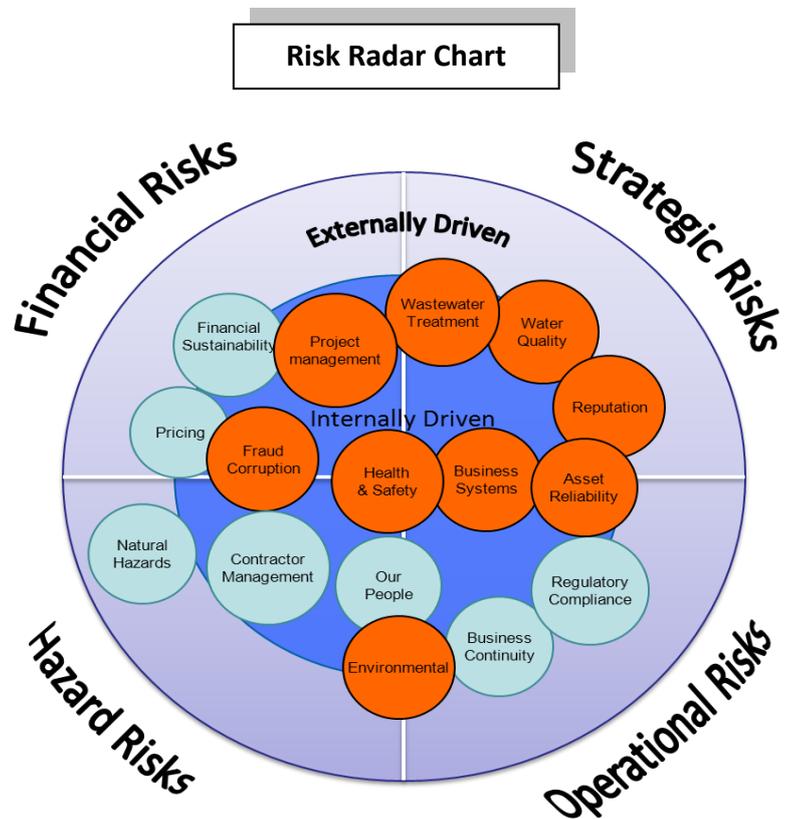
### 3 | Managing Risk

Westernport Water has developed a risk management framework based on the AZ/NZS 4360 standard and the principles of ISO 31000. This risk framework has been applied to support and prioritise our business decisions presented in the Water Plan.

The Victorian ‘water industry risk profiling’ has seen a significant shift in focus away from operational hazard risks, to systems (ICT) and strategic risks. The change in focus is designed to provide a longer term planning view of our operating efficiencies. This is demonstrated by the number of strategic capital projects described in this Water Plan which extend beyond this current water plan period e.g. Cowes sewer disposal system upgrades and replacements, and Cowes sewer treatment plant upgrade works.

The easing of the drought conditions in our region, and the commencement of our long term water security project (upgrading our Candowie Reservoir) has resulted in a change of our focus from water supply, to managing emerging risks of asset performance and reliability. The capital projects described in [Section 6](#) are designed to specifically mitigate these risk exposures.

Westernport Water ‘risk radar chart’ is based on the rankings of our strategic risks, factoring in Financial, Strategic, Operational, and Hazard Risks. The higher ranked categories (orange circles) are considered the strategic risk drivers for our business, with the others (blue circles) considered less priority risks either due to implemented control measures, or the likelihood of an occurrence or major impact. In addition, the radar chart describes the relationship of internal and external drivers impacting on these risks.



Using the risk radar, key risks clusters identified for our Water Plan include:

- **Water Quality** - building a multi barrier approach for treatment of Cryptosporidium and Giardia (organisms that may be present in our reservoir as a result of run off from pastoral paddocks). Upgrading our San Remo basin liner to prevent any possible contaminants;
- **Asset Reliability** - minimise disruptions to services with a focus on preventative maintenance and renewal programs. Improving pump station reliability, odour control, and wet weather ingress. Monitoring asset performance and control.

- ◆ **Wastewater Treatment** – Increasing irrigation area at treatment plant (King Road), and upgrading the Phillip Island wastewater disposal pipework and treatment processes due to increases in population, performance efficiencies, and legislated compliance.
- ◆ **Environment** – creating tree plantations to utilise by-products from treatment processes, and increasing sludge and biosolids management to meet EPA guidelines;
- ◆ **Business Systems** - investment in efficient systems and equipment to improve our operations;
- ◆ **Financial Sustainability** – financial management to ensure ongoing viability, and minimise pricing impacts and cost escalations; and
- ◆ **Project Management** – governance structure developed for major projects to ensure projects are well managed.

In developing our capital and operating expenditure forecasts, a key element is **financial** risk – the risk of not achieving the objectives or financial forecasts, and therefore not recovering sufficient revenue. Key risks for developing proposals in Water Plan 3 include a financial assessment on the changes in assumptions for:

- ◆ demand – assessing the impact of changes in demand on our revenue requirement to sustainably operate our business;
- ◆ operating and capital expenditure – impact of additional unbudgeted costs and potential under recovery from tariff revenue.

Forecast expenditure is contained within [Section 5](#) (Operating) and [Section 6](#) (Capital).

The risk table in [Appendix B](#) provides a summary of the risks for our capital expenditure program. Applying our risk management framework we have identified the probability and impact (consequence) analysis against each risk. This table also describes how we intend to manage the risks, and provides justification for the related expenditure. Where known, alternative options are mentioned with the preferred option noted as the project.

[Section 10](#) sets out the principles used for developing our new tariff structure. This section also covers the risks and impacts on customers of reducing our fixed water service charges and shifting our revenue base to a higher volumetric usage charge.

# 4 | Service Outcomes

## CORE SERVICE OUTCOMES

Westernport Water has committed to delivering its services in accordance with Government obligations, guidance from water industry Regulators, the Commission's core service standards, as well as meeting the service expectations of our customers.



The starting point for setting our performance standards for our core services was an assessment of our performance over the last water plan period, taking the 5 year average and factoring in the known areas of targeted performance improvements resulting from customer feedback.

The service outcomes underpin our business expenditure forecasts for Water Plan 3 and our tariffs proposals. The outcomes of previous performance, the expected improvements in service and targets built into our next Water Plan are detailed below:

Our Performance Standards	Water Plan 2008-2013								Water Plan 2013-2018				
	08/09 Target	08/09 Actual	09/10 Target	09/10 Actual	10/11 Target	10/11 Actual	11/12 Target	12/13 Target	13/14 Target	14/15 Target	15/16 Target	16/17 Target	17/18 Target
<b>Water</b>													
Unplanned water supply interruptions (per 100km)	45	36	44.9	38	44.9	25	44.9	44.9	40	40	35	35	35
Average time taken to attend bursts and leaks (priority 1) (minutes)	30	20	30	0	30	0.25	30	30	30	30	30	30	30
Average time taken to attend bursts and leaks (priority 2) (minutes)	120	66	120	96	120	57	120	120	100	100	90	90	90
Average time taken to attend bursts and leaks (priority 3) (minutes)	1440	184	1440	265	1440	157	1440	1440	450	450	450	450	450
Unplanned water supply interruptions restored within 5 hours (per cent)	100%	98%	100%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Planned water supply interruptions restored within 5 hours (per cent)	100%	95%	100%	98%	100%	94%	100%	100%	100%	100%	100%	100%	100%
Average unplanned customer minutes off water supply	45	70	45	28	44	40	42	43	50	50	45	45	40
Average planned customer minutes off water supply	37	156	37	40	37	93	37	37	90	90	90	90	90
Average unplanned frequency of water supply interruptions	0.3	0.64	0.3	0.41	0.3	0.34	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Average planned frequency of water supply interruptions	0.3	0.88	0.3	0.3	0.3	0.59	0.3	0.3	0.5	0.5	0.5	0.5	0.5
Average duration of unplanned water supply interruptions (minutes)	180	110	180	69	180	118	170	170	120	120	120	120	120
Average duration of planned water supply interruptions (minutes)	112	178	112	131	112	158	112	112	120	120	120	120	120
Number of customers experiencing >1 unplanned water supply interruptions in the year (1)	4,500	N/A <sup>(1)</sup>	4,500	N/A	4,500	N/A	4,500	4,500	1,500	1,500	1,500	1,500	1,500
Unaccounted for water	13%	18%	13%	7%	13%	5%	13%	13%	10%	10%	10%	10%	10%
(1) Currently we are not able to report > 1 customer interruptions therefore N/A													
<b>Sewerage</b>													
Sewerage blockages (per 100km)	15	7	15	4.4	15	9	15	15	12	12	10	10	10
Average time to attend sewer spills and blockages (minutes)	60	88	60	40	60	125	60	60	90	90	90	90	90
Average time to rectify a sewer blockage (minutes)	210	135	210	123	210	269	210	210	200	200	200	200	200
Spills contained within 5 hours (per cent)	100%	100%	100%	91%	100%	88%	100%	100%	100%	100%	100%	100%	100%
Customers receiving more than 3 sewer blockages in the year	0		0		0		0	0	0	0	0	0	0
<b>Customer service</b>													
Complaints to EWOV (per 1000 customers)	1.1	2.1	1.1	2.13	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Telephone calls answered within 30 seconds	90%	96%	90%	94%	90%	93%	90%	90%	90%	90%	90%	90%	90%

Westernport Water is required to provide our customers with the following minimum flow rates:

Minimum flow rates (litres per minute)	
20mm	15
25mm	30
32mm	60
40mm	90
50mm	160

## OTHER SERVICE STANDARDS

The service standards detailed below were applied in our current water plan period. It is proposed that these standards will be maintained and [new] targets will be actioned over Water Plan 3.

Of particular note is the change in CO<sub>2</sub>/ Green energy target levels proposed for Water Plan 3. The Corporation does not propose to purchase green energy over Water Plan 3, rather we will be exploring CO<sub>2</sub> offsets via tree plantations at the Cowes and King Rd Waste Treatment Plants.

Over Water Plan 2 the Corporation developed and commenced implementing its Biosolids Management Plan at our Cowes waste treatment plant, which is reflected in the proposed service standard of 100% for Water Plan 3.

The increase in recycled water usage during periods of warmer weather was a contributing factor in establishing our Class A reuse water facility at Cowes. Westernport Water have required some new estates on Philip Island to connect to the reuse (dual pipe) systems. The increase in reuse water expected over Water Plan 3 is reflected in the proposed service standard. In addition, the installation of a tree plantation at Cowes waste treatment plant will allow for increased land based discharge of treated effluent (or recycled water).

An additional service standard proposed by ESC relates to the number of properties not yet connected to town reticulation systems. Westernport Water has only one small suburb that is currently not connected, and is serviced by septic systems which pump into our sewer network for disposal. It is not expected that this suburb will be sewered within Water Plan 3.

	Water Plan 2008-2013								Water Plan 2013-2018				
	08/09 Target	08/09 Actual	09/10 Target	09/10 Actual	10/11 Target	10/11 Actual	11/12 Target	12/13 Target	13/14 Target	14/15 Target	15/16 Target	16/17 Target	17/18 Target
CO <sub>2</sub> / Green energy target	N/A	4,490	N/A	4,317	N/A	4,487	N/A	7,555	6,300	6350	6450	6530	6700
Recycled water target	20%	19%	20%	16%	20%	11%	20%	23%	18.5%	19.0%	31.5%	32.0%	33.0%
Biosolids reuse	N/A	0	N/A	0	10%	169%(*)	10%	20%	100%(#)	100%	100%	100%	100%
Environmental discharge indicator	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Drinking water quality indicators	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Sewer backlog connections [NEW]									n/a	n/a	n/a	n/a	n/a

(\*) use of historical stockpiled Biosolids.

(#) volume of biosolids generated each year will be 100% used for land application, as per our Biosolids Management Strategy.

## PROPOSED CHANGES TO CORE SERVICES

The core performance standards table previously listed contains the following key changes:

1. **Improved performance from 2014/15 as a result of our Preventative Maintenance Plan for;**
  - ◆ Unplanned water supply interruptions (per 100km);
  - ◆ Average time to attend Priority 2 bursts and leaks (minutes); and
  - ◆ Sewerage blockages (per 100km).
  
2. **Increase (from 60min to 90min) in the average time to attend both priority 1 and 2 sewer spills and sewer blockages;**
  - ◆ Increased service standard reflects the property access issues that we experience
  
3. **Our commitment to an extensive air scouring program in our pipe network to assist with managing water quality, will affect our performance in the following:**
  - ◆ Average duration of planned water supply interruptions - from 112 minutes to 120 minutes;
  - ◆ Average planned frequency of water supply interruptions – from 0.3 to 0.5; and
  - ◆ Average planned customer minutes off water supply – from 37min to 90min.

## GUARANTEED SERVICE LEVEL SCHEME

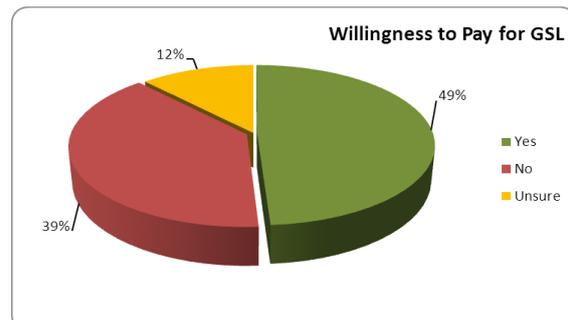
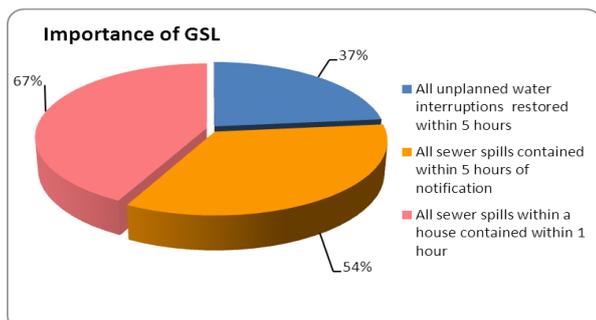
Guaranteed Service Levels (GSLs) are levels of performance that we guarantee to our customers. If we fail to meet these service standards then affected customers are eligible for a rebate.

Westernport Water is seeking to implement GSLs for our core services, water and wastewater. In determining the appropriate GSLs we looked at our past operational performance, the level of importance to the customer, the cost of implementation, and other water industry GSLs.

We proposed three GSLs and associated rebates for our Water Plan Customer Feedback Survey:

- ◆ All unplanned water interruption restored within 5 hours of notification (\$50 rebate)
- ◆ All sewerage spills in a house contained within 1 hour of notification (\$500 rebate)
- ◆ All sewerage spills contained within 5 hours of notification (\$250 rebate)

Our customers were asked to rank the GSLs in levels of importance to them on a scale of 1-5, 1 being not important, up to 5 being very important, and were also asked to indicate their willingness to pay for the GSL scheme. Two thirds of our customers responded that sewer spills within a house to be contained within 1 hour was the most important of the three GSLs, just over half rated sewer spills contained within 5 hours as very important and just over a third rated no more than 5 unplanned water interruptions as very important.



## Customer Feedback on GSLs

The low priority response from customers to the water interruption GSL can likely be attributed to the high percentage of non-permanent residents (60%) within our region as they would rarely be affected by this event. In further developing a meaningful water interruption GSL, we consulted again with our Customer Consultative Panel and determined that the GSL “No more than 5 unplanned water interruptions within any 12 month period” would be more relevant to both permanent and non-permanent residents. Westernport Water has adopted this GSL for Water Plan 3.

Nearly 50% of the customers surveyed indicated their willingness to pay an additional \$1 - \$2 per annum to support the introduction of GSLs, 39% did not want to pay and 12% were undecided.

The following table details the full set of GSLs we will be introducing in Water Plan 3 and the value of the rebate should we fail to meet our GSL obligation.

GSL	Value of Rebate #
1. No more than 5 unplanned water interruptions within any 12 month period	\$50
2. Sewage spill in a house contained within 1 hour of notification	\$500
3. Sewage spill <b>onto property</b> contained with 5 hours of notification	\$250
4. 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*	\$300

\*Introduced in 2011.

# Value of rebates will not increase over Water Plan 3

## GOVERNMENT AND REGULATORY OBLIGATIONS

Our proposed works to meet compliance obligations over the Water Plan period is summarised and included in [Appendix A](#). Specific commentary on our proposed actions over Water Plan 3 to meet Government and Regulator obligations are detailed in the following sections.

### Department of Health (DoH)

#### **Guidance on Water Plan 3 – Guidance Note No.14**

Over Water Plan 2 Westernport Water developed, and implemented a Water Quality Strategy. This strategy was focused on improving our regulatory compliance and the taste and odour of our water. With the completion of the chloramination project, the main regulatory issue of THM levels has been addressed. Our recent customer satisfaction survey indicated that the percentage of customers dissatisfied with the taste and odour of our water has significantly reduced.

Given the success of the Water Quality Strategy, the general strategic direction for Water Plan 3 is to consolidate and maintain our improvements in regulatory compliance and customer satisfaction with the taste and odour of our water.

Proposed key capital projects for Water Plan 3 include:

- IBWPP Tertiary Treatment (\$1.5M) to address the risk of cryptosporidium and giardia in treated water;
- Replacement of the San Remo Basin liner and cover (\$1.5M) to address the observed deterioration of the existing cover and liner, and maintain the quality of the water stored in the basin.

## Department of Sustainability and Environment (DSE)

### ***Guidelines for the Development of a Water Supply Demand Strategy (Version 2)***

Our Water Supply Demand Strategy (WSDS) was updated in the lead up to developing our Water Plan 3. In accordance with the Guidelines for the development of a Water Supply Demand Strategy (V2), we were required to submit:

- ◆ Water Supply Demand Strategy 2012;
- ◆ Drought Response Plan;
- ◆ Water Security Outlook and Action Plan; and
- ◆ Alternative Water Atlas.

The key outcomes from the updated WSDS are;

#### **1. Demand Side actions**

- ◆ Undertake community consultation to better understand the water use behaviours and attitudes of our customers.

#### **2. Supply Side actions**

A number of water supply projects have either been completed or are in pre-construction phase. These include:

- ◆ Bass River pump station – completed;
- ◆ Corinella Borefield – complete permanent installations during Water Plan 3;
- ◆ Candowie Reservoir Upgrade project – pre-construction phase, completion in first year of Water Plan 3;
- ◆ Works to connect to the Desalination pipeline – pre-construction phase; and
- ◆ Works to connect to the Desalination pipeline scour – pre-construction phase.

With the key deliverable of DSE approving the Candowie Upgrade project Water Plan 3 does not include any further major water supply projects. It is noted that a condition of the Candowie Upgrade project is to provide a full environmental flow to Tennent Creek. This is a new obligation on Westernport Water.

## Environment Protection Authority (EPA)

### ***EPA Water Plan 3 Guidance December 2011***

The Corporation has reviewed the EPA's Water Plan 3 obligations as detailed in the EPA Water Plan 3 Guidance (Dec 2011). The EPA has identified the key high-risk issues over Water Plan 3 as follows;

- ◆ Emergency discharge events
- ◆ Sewer spills
- ◆ Stockpiling of biosolids
- ◆ Licence requirements

Proposed strategic actions by the Corporation over Water Plan 3 are as follows:

#### **1. Cowes Wastewater Treatment Plant**

- ◆ Upgrade plant to meet growth, stabilise operation, improve sludge and biosolids management, storage and disposal;
- ◆ improve quality of effluent discharged to ocean; and
- ◆ Reduce quantity of effluent discharged to ocean by adopting land based irrigation and tree plantations.



## 2. Cowes wastewater reticulation system

- ◆ Progressive upgrade of the Cowes wastewater collection and transfer system to meet growth; and
- ◆ Accommodate peak wet weather flows.

## 3. King Rd Wastewater Treatment Plant

- ◆ Investigate storage options
- ◆ Install additional irrigation capacity and tree plantations.

It is also noted that the overall future intent of the EPA is for “...little to no environmental impacts...” from the Corporation’s activities. This may mean future step changes to our operations including updates to our ocean discharge disinfection process or treating all ocean discharges to Class A standard.

Compliance with our regulators and proposed works to continue to meet these obligations over the Water Plan period, is summarised and included in [Appendix A](#).

## 5 | Operating Expenditure

The key drivers of operating expenditure forecasts are driven by *business as usual* (BAU) expenditure and *new obligations*.

Our general operations do not fluctuate significantly from year to year, which means that majority of our operating expenditure is classified as *business as usual* ('BAU'). Our BAU costs are mainly fixed operating costs for providing our customers with core water and waste services, maintaining our assets required to service both our permanent population (17,000 customers), as well as our peak holiday population (approximately 60,000 customers). Refer to [Section 8](#) for further details on demand, population and our region's demographics.

While our operating BAU costs are mainly fixed, we are constantly focused on driving efficiencies and productivity into our operations and systems. This ensures we continue to deliver to our customers 'value for money' services. The operating costs included in Water Plan 3 are based on efficient spend, incorporating productivity improvement targets over the planning period, as well as budgeting for additional costs relating to known changes in operations.

Our Water Plan 3 expenditure forecasts on *new obligations* are derived from:

- ◆ Strategic initiatives and process improvements;
- ◆ Compliance with the [updated] Statement of Obligations (SoO);
- ◆ Legislative requirements regarding water quality from the Department of Health (DoH), and environmental improvements and considerations from the Environmental Protection Authority (EPA);
- ◆ Environmental Contribution collected by the Department of Sustainability and Environment (DSE); and
- ◆ Other growth and service improvements.

Total operating expenditure forecasts for our Water Plan is summarised below:

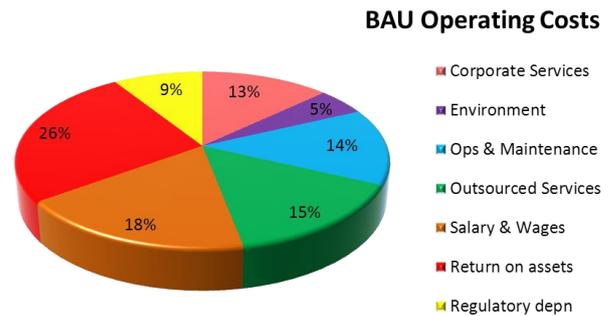
Operating Expenditure (\$m, Jan 2013)	2013/14	2014/15	2015/16	2016/17	2017/18
BAU Operating Costs	12.82	11.58	11.62	11.68	11.74
Licence Fees	0.05	0.05	0.05	0.05	0.06
Environment Contribution	0.79	0.79	0.79	0.79	0.79
New Initiatives	0.02	-	-	-	-
<b>Total Operating Expenditure</b>	<b>\$13.69M</b>	<b>\$12.42M</b>	<b>\$12.47</b>	<b>\$12.52</b>	<b>\$12.60M</b>

The major cost drivers influencing our operating expenditure is summarised below:

- ◆ Defined benefits super fund shortfall payment (\$0.7M);
- ◆ One off costs associated with finalising road works associated with Candowie Reservoir upgrade (\$0.6M);
- ◆ Salary and wages increases, however no increase in staff (FTE) (\$0.3M);
- ◆ Electricity increases due to Class A reuse demand (\$0.01M), and marginal increases in electricity due to increased demand (growth) and cost of pumping from alternative water sources (borefields and Bass River) (\$0.01M);
- ◆ Additional environment contributions requirement by DSE (increase of 45% from last water plan) (\$0.3M);

- ◆ Additional audit fees associated with fluoridation and Class A (\$0.03);
- ◆ Increased community education programs for Class A (\$0.02M);
- ◆ Additional testing and sampling costs (\$0.01M);
- ◆ Minor additional costs relating to changes in regulatory reporting for Bureau of Meteorology (BoM) (\$0.07M);
- ◆ One off contribution to South Gippsland Water waste upgrade project (\$0.02M);
- ◆ Additional licence costs associated with Class A, and change in licence conditions at Cowes waste treatment plant (\$0.02M);
- ◆ Increased preventative maintenance programs (\$0.3M)
- ◆ Additional monitoring costs (\$0.03M); and
- ◆ Estimate for additional costs associated with Guaranteed Service Level (GSL) payments (\$0.03M).

Whilst there are no direct impacts on Westernport Water operating costs of paying the Carbon Tax, there will be increases in electricity prices and these assumptions have been included in our BAU operating cost forecasts. It is assumed that our large sites (7) will have annual increases of 5% and our smaller sites will be affected by a 10% increase (from 2012/13 prices). It is also expected that there will also be a flow on effect to products and services as suppliers recover expenses relating to the increasing cost of producing goods.



## COST MINIMISATION

Westernport Water embraces the efficiencies gained in partnering with other water corporations through shared services, contributions and support for industry forums, as well as utilising state purchasing contracts for key expenditure items (e.g. electricity, chemicals, stationary, fuel, etc).

Increases in BAU operating cost forecasts identified above have been slightly offset by embedding our productivity and efficiency target into future costs. It is expected that Westernport Water will deliver real savings of approximately \$0.1M per year, as we focus on cost minimisation and improved financial management principles across our business. These savings will be built into BAU costs and will help minimise future pricing increases.

## 6 | Capital Expenditure

Capital expenditure is a key element of the annual revenue requirement proposed in our Water Plan.

Our capital expenditure is driven by growth, compliance, improvements in services, and renewals (replacements). A summary of our proposed capital expenditure for Water Plan 3 is shown in the table below.



Capital Expenditure (\$m, Jan 2013)	2013/14	2014/15	2015/16	2016/17	2017/18	Total
Net capital expenditure - renewals	0.74	1.34	1.12	0.68	2.06	\$5.93M
Net capital expenditure - growth	2.09	0.25	-	4.28	2.63	\$9.25M
Net capital expenditure - improved service	0.83	0.33	0.13	0.31	0.13	\$1.71M
Net capital expenditure - compliance	2.55	1.42	1.99	0.34	0.31	\$6.60M
<b>Total prescribed Capex</b>	<b>\$6.21M</b>	<b>\$3.34M</b>	<b>\$3.24M</b>	<b>\$5.61M</b>	<b>\$5.13M</b>	<b>\$23.53M</b>

Definition of expenditure drivers:

- ◆ **Renewal** projects are identified asset replacement projects due to age or condition.
- ◆ **Growth** projects are capital investments required to meet growth and forecast demand for our products and services.
- ◆ **Compliance** projects are required to meet regulatory and statutory obligations.
- ◆ **Improved service** projects required to continually improve asset performance, quality of our produces and deliver improved service to our customers.

The proposed capital expenditure reflects obligations imposed by Government (including technical regulators) or customers' service expectations. Overall compliance with our Regulators and proposed works to meet compliance obligations over Water Plan 3 period is summarised from a risk perspective and included in [Appendix B](#).

A full list of capital projects is included in [Appendix C](#).

Our proposed capital expenditure is in line with our previous water plan spending profile, however the focus on our capital projects has shifted from water supply projects to wastewater upgrades and improvements.

We use our risk management framework to assess all proposed capital projects and programs. Risk reviews provide a level of assurance that planned works deliver efficient long-term operation of our assets, take into consideration system/business wide needs, and require options analysis to deliver the best solution. Changes to our operating costs as a result of capital investments are also factored into operating expenditure forecasts.

Details of our key projects are provided below:

### **Pump Station Upgrades**

An ongoing program of upgrades of switchboards, pumps, generators, mechanical and electrical components and civil works to ensure that the Corporations 90 plus pump stations continue to operate efficiently and provided expected levels of service.

### **Cowes WWTP Replacement Programs**

The Cowes wastewater treatment plant (Cowes WWTP) services Phillip Island and the township of San Remo. An Upgrade Strategy (2012 to 2021) was commissioned and provides a consistent direction for upgrade activities at the Cowes WWTP over Water Plan 3 and Water Plan 4. The overall cost of the project(s) is \$5.8M of which \$2.75M will be expended over Water Plan 3.

The drivers for the upgrade strategy ensure our ongoing compliance with our EPA licence, and catering for growth within the Cowes district. The key activity from the upgrade strategy is to convert the Cowes WWTP to a Biological Nitrogen Removal (BNR) operation.

### **Wastewater Future – Cowes Reticulation**

Westernport Water has completed a number of studies into the existing performance and future demands on the wastewater reticulation systems across Phillip Island, San Remo and Corinella/Coronet Bay. For Water Plan 3 it is proposed to progressively implement upgrades to the Cowes area of Phillip Island and keep a watching brief on the San Remo and Corinella/Coronet Bay areas.

Options for the provision of long term wastewater services to Cowes have been assessed. It has been determined that the provision of a new regional outfall pump station and diversion of flows from east and west Cowes is the preferred long term strategic action. The overall cost of the project is estimated at \$15.7M of which \$6.0M is proposed to be expended over Water Plan 3.

### **Water Treatment Scheduled Works**

The Candowie catchment is an unprotected catchment with a land use being 5% forest and 95% agricultural (beef farming is the dominant agricultural use). Any activity involving cattle in catchments carries with it the possibility of water contamination with infectious forms of Cryptosporidium.

The Australian Drinking Water Guidelines (ADWG) recommends the implementation of a multiple barrier approach with the level of protection used to control a hazard being proportional to the associated risk. For Water Plan 3 the Corporation proposes to investigate, and if appropriate, introduce Ultra Violet disinfection into the treatment process at the Ian Bartlett Water Purification Plant.

### **Water Reticulation – Replacement Program**

This is an ongoing program of works including meter replacements and the key project of replacing the liner and cover at the San Remo Basin. The existing liner and cover are exhibiting signs of deterioration and for continued security of water supply quality it will be necessary to replace them.



### **Candowie Upgrade Project**

A small allowance has been made for carryover costs for the Candowie Upgrade Project from Water Plan 2 into Water Plan 3. This allows for the possibility of delays due to inclement weather affecting a critical stage of the project, namely the spillway crest component of the upgrade.

## 7 | Revenue Requirement

The *Water Industry Regulatory Order (WIRO)* requires the Essential Services Commission (ESC) to ensure that prices levied by water corporations provide them with a sustainable revenue stream that does not reflect monopoly prices or inefficient expenditure. The ESC uses the ‘building block’ approach to derive estimates of the revenue that the corporations require to deliver proposed service outcomes.

Under this building block approach, the revenue requirement for Westernport Water reflects operating expenditure, depreciation and a return on our assets.

The revenue required to operate our business determines the pricing increases to our tariffs.

Total revenue requirement proposed in our Water Plan is summarised below:

Revenue Requirement (\$m, Jan 2013)	2013/14	2014/15	2015/16	2016/17	2017/18	Total
Operating expenditure (\$m Jan 13)	13.69	12.42	12.47	12.52	12.60	\$63.70M
Return on assets to 30/6/13	5.09	5.00	4.92	4.83	4.75	\$24.59M
Regulatory depreciation of assets to 30/6/13	1.63	1.63	1.63	1.63	1.54	\$6.43M
Return on new assets	0.16	0.39	0.54	0.74	0.97	\$2.80M
Regulatory depreciation of new assets	0.10	0.28	0.45	0.62	0.78	\$2.23M
<b>TOTAL REVENUE REQUIREMENT</b>	<b>\$20.66M</b>	<b>\$19.72M</b>	<b>\$20.00M</b>	<b>\$20.34M</b>	<b>\$20.64M</b>	<b>\$101.36M</b>

The resulting annual price increases to meet our proposed revenue requirement over the five year planning period is 3% (excluding CPI annual inflation). Please note all prices proposed to meet our revenue requirement are still to be approved by ESC.

### Prescribed Services

Westernport Water prescribed services are regulated by the ESC. Our prescribed services are all services associated with the capture, storage, treatment and delivery of water, and the transfer, treatment and disposal of waste, including the sale of Class A and irrigation of Class B reuse water.

Westernport Water is able to recover revenue from levying tariffs, fees and charges directly relating to these services, to cover the revenue requirement to sustainably and efficiently operate our organisation.

### Non-prescribed services

The ESC does not regulate fees and charges levied on non-prescribed services, but provide oversight on its appropriateness. Our non-prescribed services are minor and relate to our farmland management and our LPG supply. Non prescribed services are not included in the development of water and wastewater tariffs.

Non Prescribed Services (\$m, Jan 2013)	2013/14	2014/15	2015/16	2016/17	2017/18
Revenue	0.05	0.05	0.05	0.05	0.05
Operating expenditure	0.10	0.10	0.10	0.10	0.10
Gross capital expenditure	-	-	-	-	0.02

## 8 | Demand

Demand forecasting plays a key role in designing the customer access and usage tariffs to enable Westernport Water to recover sufficient revenue for its operating and capital expenditure.

In developing the demand forecast we have considered the key drivers including:

- ◆ Supply
- ◆ Population and demographic changes
- ◆ General and local economic conditions
- ◆ Average consumption

### Supply

Westernport Water first released its Water Supply Demand Strategy (WSDS) in 2007. Since then it has been reviewed and revised a further two times, the most recent being in 2011 in preparation for our Water Plan.

In accordance with our WSDS, it is Westernport Water's objective to provide the lowest practical cost water to our customers by maximising the use of water available from the local sources under our management. It is also our objective, following consultation with our customers, to maintain a supply demand balance to ensure, on average, water restrictions will not be required 95% of the time.

The chart in the next section depicts our forecast of demand and supply from 2010 to 2060 and is based on the following assumptions:

### Baseline Demand Forecast

To reflect the uncertainty inherent in demand forecasting, which significantly impacts on our revenue, we have developed a baseline demand forecast (currently 1,900ML). These forecasts were derived from historic water consumption, population growth projections and recent trends in water usage. Assumptions underpinning our baseline demand forecasts:

- ◆ Current unrestricted demand<sup>1</sup> of 1,900ML per year, being the average (unrestricted) demand over the past three years;
- ◆ 1% per annum increase in demand (derived from applying the Victoria in the Future population growth forecast for Phillip Island to current rates of water consumption).

### Lower Demand Bound

A lower and upper demand forecast was used to assess a 'probable' range of demand growth up to year 2060. The following assumptions underpin our lower demand forecast:

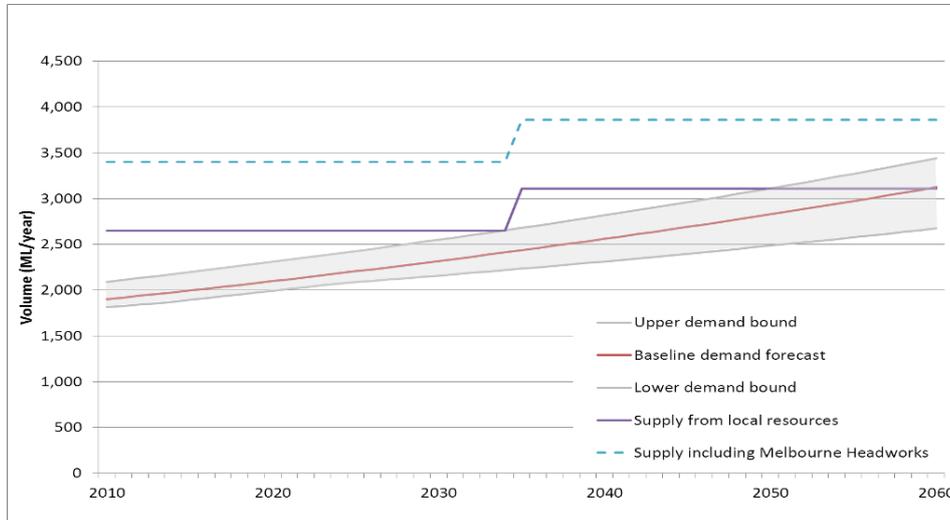
- ◆ Current unrestricted demand of 1,800 ML/year, being the average (restricted and unrestricted) demand over the past 5 years;
- ◆ Growth in residential connections in line with VIF population growth forecast for Phillip Island;
- ◆ Total non-residential (commercial) water consumption remains steady at 255 ML/year, being the average non-residential water demand for the period 2004/5 – 2009/10;
- ◆ Existing residential water connection consumption of 73 kL/year; and
- ◆ New water connection consumption of 37 kL/year.

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<sup>1</sup>System demand as distinct from billable customer demand.

## Upper Demand Bound

An upper demand bound represents a demand 10% higher than the baseline forecast. This represents the various sources of uncertainty that currently exist in the baseline demand forecast.



As can be seen by the chart, the forecasted supply from sources such as Candowie Reservoir, Bass River, Corinella Aquifer and the Metropolitan Water system will service the community until 2060, with our increased reservoir capacity, and a small increase in water sourced from Bass River (in year 2035).

The table below summarises the current entitlements from each of our water supply sources.

Source	Entitlement	% of total available water sources
Candowie Reservoir	2,911 ML per year (*)	39%
Bass River	3,000 ML per year	41%
Corinella Aquifer	491 ML per year	6%
Metropolitan Water System	1,000 ML per year (!)	14%
Total water supply (ML)	7,402 ML per year	100%

(\*) WPW is currently finalising a new entitlement for Candowie Reservoir to accommodate increased capacity.

(!) WPW does not intend to use Metropolitan Water during the WP3 period.

A full copy of Westernport Water's Water Supply Demand 2012 is available from our website [www.westernportwater.com.au](http://www.westernportwater.com.au) or by contacting us on 1300 720 711.

## Population and Demographic Changes

Westernport Water covers an area of 300 square kilometres including Phillip Island and the mainland stretching from The Gurdies to Dalyston.

Westernport Water's district can be characterised as a unique mix of rural farmland, small coastal townships and tourist destinations. Many of the townships, particularly on Phillip Island, are dominated by large numbers of holiday homes, and as a result have very low occupancy rates. The population swells significantly during holiday periods to well over 60,000 compared to normal population levels of 17,000.

According to research conducted by Bass Coast Shire Council, future growth in the region is likely to be driven by retirees and mature couples. Young families will be more attracted to specific locations such as Dalyston and Grantville as these provide relatively affordable housing opportunities as well as access to employment markets. While many retirees will move into former holiday/second homes, low occupancy rates are likely to remain characteristic of the Bass Coast settlement pattern as the significance of the region as a tourism/holiday destination is unlikely to diminish.

It is research like this, as well as a range of publications and other research material is used as the basis for forecasting changes in population and demographics, including:

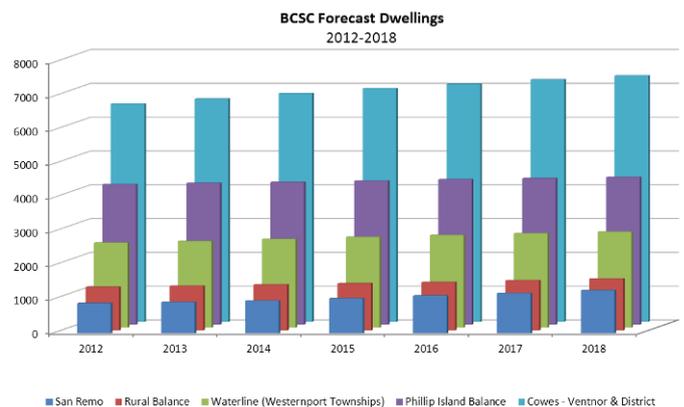
- ◆ 2006 Census of Population and Housing from the Australian Bureau of Statistic (ABS);
- ◆ Victoria in the Future 2012 from the Department of Planning and Community Development;
- ◆ 2006 Analysis – Coastal Report - Towns in Time - Department of Planning and Community Development;
- ◆ Bass Coast Shire Council (BCSC) – Community Profile and Statistics; and
- ◆ 2011 Census data (June 2012).

### Demand Forecast Assumptions

Based on these reports and research Westernport Water developed the following assumptions in forecasting demand:

- ◆ Growth in water usage of 1% per annum;
- ◆ Non-revenue water of 10% per annum of total system production. Non-revenue water is made up of our system leakage index, our in-house consumption, and an estimate of water used for our maintenance programs;
- ◆ Marginal growth in commercial or industrial customers;
- ◆ Average household size to remain constant;
- ◆ Dwelling occupancy rates to remain constant (permanent v non-permanent);
- ◆ Growth in [our region] residential property numbers of 2% per annum;
- ◆ Estimate of up to 23% of drinking water substituted by recycled water for properties connected to the purple pipe network; and
- ◆ Additional recycled water provided to farms

Our forecast in residential properties is supported by forecasts from BSCS (as per the tables below) showing a 2% increase in residential dwellings and developments year on year from 2012 to 2018 and constant occupancy rates.



FORECAST YEAR	2012	2013	2014	2015	2016	2017	2018
<b>Cowes – Ventnor &amp; District</b>							
Average Household Size	2.15	2.15	2.15	2.14	2.14	2.14	2.14
Number of Dwellings	6,443	6,594	6,572	6,895	7,033	7,161	7,276
Population	5,790	5,917	6,043	6,161	6,270	6,487	6,581
<b>Phillip Island Balance</b>							
Average Household Size	2.23	2.22	2.22	2.22	2.22	2.22	2.22
Number of Dwellings	4,148	4,180	4,210	4,250	4,290	4,325	4,360
Population	3,693	3,712	3,735	3,773	3,812	3,845	3,872
<b>Rural Balance</b>							
Average Household Size	2.54	2.53	2.53	2.53	2.54	2.54	2.54
Number of Dwellings	1,280	1,315	1,349	1,385	1,426	1,477	1,528
Population	2,757	2,812	2,884	2,959	3,053	3,145	3,255
<b>San Remo</b>							
Average Household Size	2.15	2.15	2.14	2.15	2.16	2.16	2.16
Number of Dwellings	888	920	961	1,032	1,109	1,186	1,269
Population	1,316	1,365	1,421	1,529	1,645	1,766	1,893
<b>Waterline (Westernport Townships)</b>							
Average Household Size	2.15	2.14	2.15	2.15	2.15	2.15	2.15
Number of Dwellings	2,504	2,550	2,610	2,677	2,732	2,782	2,829
Population	3,713	3,776	3,874	3,979	4,065	4,157	4,226
<b>Average Household Size</b>	<b>2.24</b>						
<b>Total Number of Dwellings</b>	<b>15,262</b>	<b>15,558</b>	<b>15,881</b>	<b>16,238</b>	<b>16,589</b>	<b>16,930</b>	<b>17,261</b>
<b>Total Population</b>	<b>17,270</b>	<b>17,581</b>	<b>17,957</b>	<b>18,400</b>	<b>18,844</b>	<b>19,399</b>	<b>19,827</b>

Source: Forecast dwellings & development (numbers), Bass Coast Shire 15 Jan 2012<sup>2</sup>

Rural balance includes the townships of Kilcunda and Dalyston and Waterline includes the townships of Coronet Bay, Pioneer Bay and Grantville.

OCCUPANCY RATES	2006	2011	2016
Cowes-Ventnor & District	39.81	40.11	40.59
Phillip Island Balance	39.48	39.98	39.95
Rural Balance	79.90	85.78	83.89
San Remo	66.80	66.82	67.09
Waterline (Westernport Townships)	67.40	68.73	69.03

## General and local economic conditions

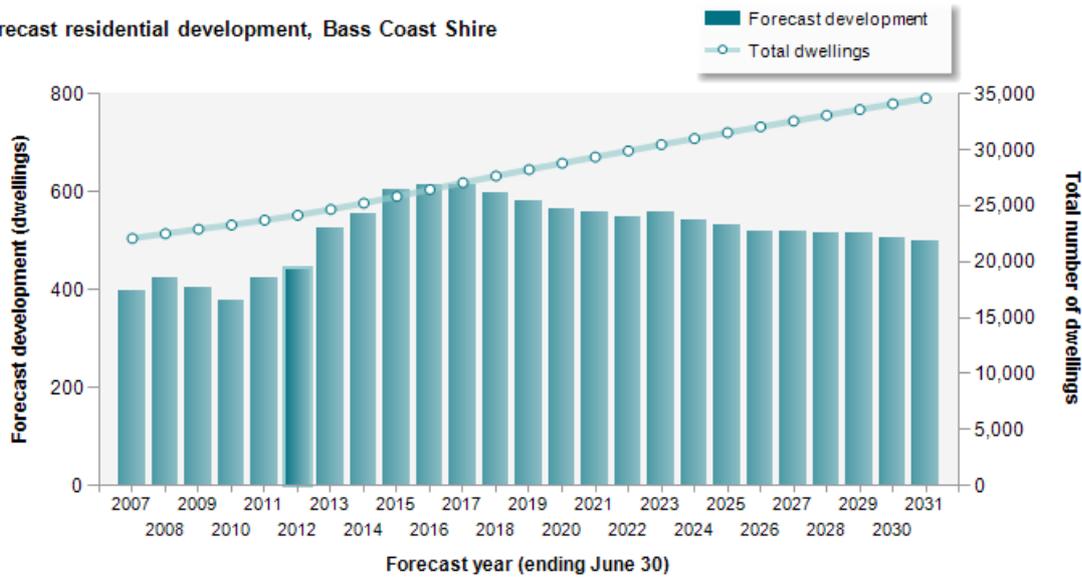
New Customer Contributions are charged by water corporations to help fund extensions of our water and sewer network to new (or changed) subdivisions.

The expected growth of the property subdivisions and the revenue received from New Customer Contributions has been based on the historical growth in our region and forecasts from Bass Coast Shire Council as highlighted by the chart below.

<sup>2</sup> Population numbers in forecast.id for the 2006 base year are derived on Estimated Resident Population from the Australian Bureau of Statistics. These differ from (and are usually higher than) Census counts as they factor in population missed by the Census, and population overseas on Census night. They are generally considered a more accurate measure of population size than Census counts.



Forecast residential development, Bass Coast Shire



Source: Bass Coast Shire Council <http://forecast2.id.com.au/Default.aspx?id=344&pg=5530>

(Note – this chart also includes development that falls in areas outside of our district e.g. Wonthaggi and Inverloch).

The expected growth in major new housing estates is between 75 to 120 lots per year, and redevelopment of existing land will provide for an additional 200 lots per year. In total, an average growth of 300 lots per year has been included in our Water Plan assumptions for revenue received for new customer contributions.

The growth of our recycled water Class A market is also linked to the number of new developments occurring over the Water Plan 3 period.

Our Class A recycled water plant was commissioned in July 2012 and we are now supplying one estate of 200 properties with recycled water through the dual pipe system. This will be followed by two new housing estates, currently under construction, adding a further 550 lots. It is our policy to mandate all new estates in the Cowes area and in selected other locations to provide dual pipe to achieve our ultimate target of 1,400 residences in a 10 year period.

In addition to growth in new housing estates, the conversion of our current Class B recycled water customer to Class A will increase the use of Class A water. A small increase in our commercial and farming Class A customers is expected in the five year Water Plan period.

## Summary of Actual and Forecast Customer Demand 2008/13 to 2013/18

	Unit	2008/09 Actual	2009/10 Actual	2010/11 Actual	2011/12 Actual	2012/13 Forecast	2013/14 Forecast	2014/15 Forecast	2015/16 Forecast	2016/17 Forecast	2017/18 Forecast
<b>Water Connections</b>											
Residential <sup>3</sup>	No.	13,160	13,364	13,646	14,202	14,368	14,655	14,948	15,247	15,552	15,863
Commercial / Non-Res	No.	991	1,005	1,044	1,064	1,084	1,086	1,095	1,105	1,117	1,128
<b>TOTAL</b>	<b>No.</b>	<b>14,151</b>	<b>14,369</b>	<b>14,690</b>	<b>15,266</b>	<b>15,452</b>	<b>15,741</b>	<b>16,043</b>	<b>16,352</b>	<b>16,669</b>	<b>16,991</b>
<b>Wastewater Connections</b>											
Residential	No.	12,122	12,333	12,642	13,075	13,384	13,418	13,686	13,960	14,239	14,524
Commercial / Non-Res	No.	518	536	553	550	555	591	597	603	609	615
<b>TOTAL</b>	<b>No.</b>	<b>12,640</b>	<b>12,869</b>	<b>13,195</b>	<b>13,625</b>	<b>13,939</b>	<b>14,009</b>	<b>14,283</b>	<b>14,563</b>	<b>14,848</b>	<b>15,139</b>
<b>Unconnected Land</b>											
<b>TOTAL</b>	<b>No.</b>	<b>1,721</b>	<b>1,770</b>	<b>1,638</b>	<b>1,674</b>	<b>1,677</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>
<b>Water Consumption</b>											
Residential	kl's	1,060,042	1,011,800	1,002,365	1,137,282	1,033,955	1,044,295	1,054,737	1,065,285	1,075,938	1,086,697
Commercial / Non-Res	kl's	548,235	544,206	588,579	640,989(*)	573,133	578,864	584,653	590,500	596,404	602,369
<b>TOTAL</b>	<b>kl's</b>	<b>1,608,277</b>	<b>1,556,006</b>	<b>1,590,944</b>	<b>1,778,271</b>	<b>1,607,088</b>	<b>1,623,159</b>	<b>1,639,390</b>	<b>1,655,785</b>	<b>1,672,342</b>	<b>1,689,093</b>
<b>Class A Recycled Water</b>											
Residential	kl's	0	0	0	0	3,080	3,142	3,203	3,265	3,326	3,388
Commercial / Non-Residential	kl's	0	0	0	0	45,000	65,000	65,000	65,000	65,000	65,000
<b>TOTAL</b>	<b>kl's</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>68,080</b>	<b>68,142</b>	<b>68,203</b>	<b>68,265</b>	<b>68,326</b>	<b>68,388</b>
<b>Developer Lots</b>											
Water	No.	213	376	536	426	409	300	315	270	300	340
Wastewater	No.	213	376	536	426	409	300	315	270	300	340
Recycled					50	650	725	800	875	950	1,025
<b>TOTAL</b>	<b>No.</b>	<b>426</b>	<b>752</b>	<b>1,072</b>	<b>852</b>	<b>1,468</b>	<b>1,325</b>	<b>1,430</b>	<b>1,415</b>	<b>1,550</b>	<b>1,705</b>

(\*) Additional consumption due to desalination plant construction

<sup>3</sup> Includes water connected land customers

## 9 | Form of Price Control

The *Water Industry Regulatory Order* (WIRO) provides for water corporations to develop tariffs that provide a sustainable revenue stream which does not reflect monopoly pricing or inefficient expenditure.

Prices and tariffs proposed in Water Plan 3 are set to ensure that we recover operating and maintenance costs, renewal and replacement costs for infrastructure (our assets) and an expected rate of return on existing and future assets.

The Essential Services Commission will authorise all of the proposed prices and how they were calculated only if they are satisfied that it meets the procedural requirements and regulatory principles in the WIRO. Alternatively, the Commission may specify the prices or the manner for calculating or determining the prices.

*Price cap* - Prices are approved by the regulator at the start of the regulatory period and escalated annually by applying the CPI-X formula to each price component. Prices are not rebalanced within the regulatory period. CPI is the consumer price index or CPI annual inflation.

*Revenue cap* — The maximum revenue businesses can earn is set at the start of a regulatory period. This provides a business with guaranteed revenue regardless of sales volume over the five year planning period.

Westernport Water is proposing to continue a price cap approach for our tariffs. Consideration of our customer demographics was a key in determining our approach to tariff pricing for Water Plan 3. Currently, 30% of our permanent residents hold some form of concession, and are considered fixed income households. We believe that using a price cap approach to tariff pricing provides our customers with a transparent year on year pricing path to assist our fixed income customers to plan for the expected increases over the five year water plan period.

# 10 | Tariff Structures

This section of our Water Plan details the proposed price structures for water and wastewater service to be implemented over 2013 – 2018, designed to achieve a revenue requirement of \$20M (average) per year.

Refer to [Section 7](#) for further explanation on what makes up our revenue requirement.

The proposed pricing path included in our Water Plan has been “smoothed” over the five year water plan period to achieve our objective of providing a consistent and predictable average annual price movement for our customers of 3% (excluding CPI annual inflation).

## Tariff Structures

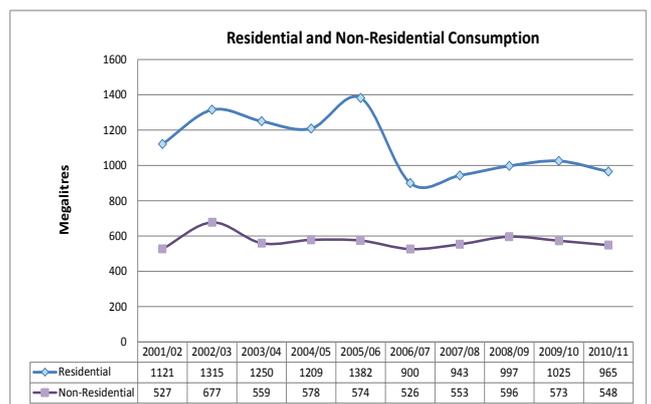
In developing the proposed access and usage charges Westernport Water modelled a range of pricing options, including:

- ◆ Returning to a two part tariff (fixed charge plus volumetric charge) by replacing the Inclining Block Tariff (IBT) with a single volumetric usage charge;
- ◆ Applying a single volumetric usage charge to both residential and commercial customers;
- ◆ Reduction of the fixed water access charges by increasing the volumetric charge; and
- ◆ Rebalancing the unconnected Vacant Land access charges to 50% of the connected rate for water and sewer.

### Two part tariff

In the post drought 2008-2013 Water Plan 2 (WP2), Westernport Water introduced an Inclining Block Tariff (IBT) charging structure for water consumption. The objective of the IBT was to effect change in customer efficient use of water.

Based on the data collected over the current water plan period, the expected impact of IBT has not been realised, as consumption patterns have remained constant despite property and population growth, as shown in the graph of residential and non-residential consumptions since 2001/02.



Westernport Water believes a change in customer attitudes and behaviour regarding the efficient use of drinking water has impacted our consumption patterns through:

- ◆ Increased education programs regarding conservation;
  - ◆ Customer awareness of climate change; and
  - ◆ Implementation of the State Government’s Permanent Water Saving Rules;
- not our customer’s sensitivity to prices expected through an IBT structure.

### Reduction of the access charges for water and sewer

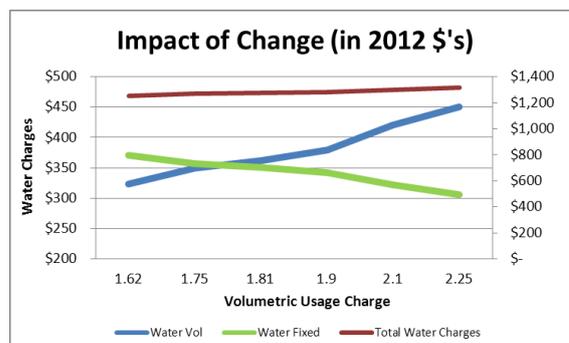
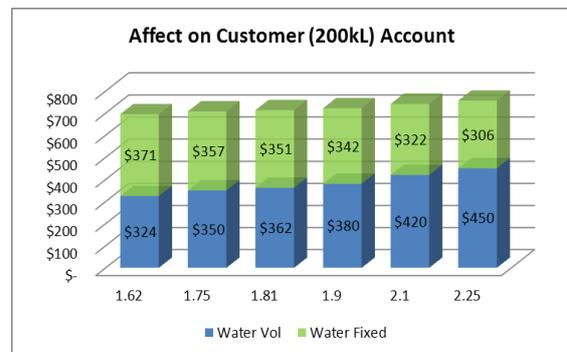
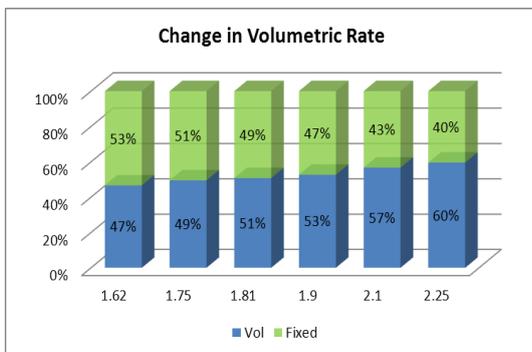
The Essential Services Commission ('ESC') encouraged water corporations to restructure tariffs with a focus on reducing fixed annual charges and increasing the variable usage charge, to send pricing signals around the efficient use of water.

Feedback received from our customers indicated that they would support an increase in volumetric usage charges, if a reduction in fixed charges was possible. As part of the development of our Water Plan, we undertook a sensitivity and impact analysis on reducing our fixed charges.

Taking into consideration only 40% of our customers reside in our service area, and our operating costs are mainly fixed as our services are required to accommodate our peak population, we are limited in the ability to "load" up the variable charge.

The ESC's goal for customer's average annual water account to be made up of 60% variable charges and 40% fixed water charges has a significant impact on our revenue base. To recover the same amount of revenue (annual average of \$20M), we would need to charge in excess of \$2.25 per thousand litres – which is still infinitely cheaper than bottled water, but at this rate our permanent residents would absorb the impact of this change as they make up 63% of the total usage revenue collected annually.

Currently, the average annual account is 47% variable and 53% fixed water charges. The possible effect of changing our fixed and variable charges is demonstrated in the graphs below:



During the process of developing a proposed tariff structure for Water Plan 3, Westernport Water determined that a marginal reduction of the fixed component (access fees) equates to a significant increase in the variable (water use) charge. To minimise the impact on our permanent residents, and ensure that revenue would not be significantly at risk, a usage rate of \$1.79 per kL achieves a reduction of 2% for fixed water charges – which will benefit all customer groups. This is reflected in the in the [section below](#) on proposed prices.

### Rebalancing the vacant land charges

Westernport Water commenced a program in previous water plans to rebalance the unconnected land water and sewer charges to be 50% of the connected residential rate. It is proposed to complete this program in 2013/14. Customer feedback on this proposal generally supported the rebalance. A realignment of vacant land tariffs is required in 2013/14.

### Commercial Rates

Commercial fixed water service charges are based on the standard 20mm fixed charge. An increasing ratio is applied to reflect the cost of servicing the larger tappings. With the reduction of the standard 20mm fixed charge, our commercial customers will also see a reduction in fixed water charges.

### Proposed Pricing Path

The following tables detail the proposed pricing path (excluding CPI annual inflation) to be applied to the access and usage charges for water, recycled water and sewer.

(\$ Jan 2013)	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
<b>Price Path Movement</b>					
All water and sewer tariffs	3%	3%	3%	3%	3%

### Proposed Prices

The following tables demonstrate the impact of the proposed pricing path to the access and usage charges.

**Please note all proposed prices are expressed in Jan 2013 dollars (excluding CPI annual inflation), and are still subject to approval from ESC.**

### Proposed Water and Recycled Water Access Charge (per annum) – excludes CPI annual inflation

(\$ Jan 2013)	2012-13 (Actual)	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
<b>Residential</b>						
Water Access Charge	\$365.60	\$360.00	\$370.95	\$382.23	\$393.86	\$405.84
Unconnected Land Water Access	\$238.96	\$180.00	\$185.48	\$191.12	\$196.93	\$202.92
Class A Recycled Water Access	\$25.00	\$ 25.00	\$25.76	\$26.54	\$27.35	\$28.18
<b>Commercial</b>						
20mm Water Access Charge	\$365.60	\$360.00	\$370.95	\$382.23	\$393.86	\$405.84
25mm Water Access Charge	\$658.08	\$647.99	\$667.70	\$688.01	\$708.94	\$730.51
32mm Water Access Charge	\$1,243.40	\$1,224.28	\$1,261.52	\$1,299.90	\$1339.44	\$1380.19
40mm Water Access Charge	\$2,267.28	\$2,232.36	\$2,300.27	\$2,370.25	\$2,442.35	\$2,516.65
50mm Water Access Charge	\$4,059.24	\$3,996.69	\$4,118.27	\$4,243.55	\$4,372.64	\$4,505.66
65mm Water Access Charge	\$8,082.00	\$7,957.40	\$8,199.47	\$8,448.90	\$8,705.92	\$8,970.76
80mm Water Access Charge	\$14,006.48	\$13,790.51	\$14,210.02	\$14,642.29	\$15,087.71	\$15,546.68
100mm Water Access Charge	\$25,197.16	\$24,808.58	\$25,563.27	\$26,340.91	\$27,142.21	\$27,967.89
150mm Water Access Charge	\$58,074.64	\$57,179.01	\$58,918.42	\$60,710.74	\$62,557.58	\$64,460.61
Class A Recycled Water Access	\$25.00	\$ 25.00	\$25.76	\$26.54	\$27.35	\$28.18

### Proposed Water Usage Charge (per kilolitre) – excludes CPI annual inflation

(\$ Jan 2013)	2012-13 (Actual)	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
<b>Residential</b>						
Water	\$1.6245 \$1.7870 \$2.3015	\$1.7900	\$1.8717	\$1.9571	\$2.0464	\$2.1398
Class A Recycled Water	\$1.0000	\$1.0000	\$1.0210	\$1.0424	\$1.0643	\$1.0867
<b>Commercial</b>						
Water	\$1.6245	\$1.7900	\$1.8717	\$1.9571	\$2.0464	\$2.1398
Class A Recycled Water (>5ML/yr)	\$0.4000	\$0.4000	\$0.4100	\$0.4200	\$0.4300	\$0.4400

### Proposed Sewer Access Charge (per annum)

	2012-13 (Actual)	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
<b>Residential</b>						
Sewer Access Charge	\$555.56	\$555.00	\$571.88	\$589.28	\$607.21	\$625.68
Unconnected Land Sewer Access	\$245.60	\$277.50	\$285.94	\$294.64	\$303.60	\$312.84
<b>Commercial</b>						
Sewer Access Charge	\$555.56	\$555.00	\$571.88	\$589.28	\$607.21	\$625.68
Per Cistern Charge (> 2 cisterns)	\$201.80	\$200.00	\$206.08	\$212.35	\$218.81	\$225.47

### Revenue from New Customer Contributions (NCC's)

Water corporations generally require new customers to make an upfront contribution to the costs of connecting to the existing water and sewerage networks. Existing property owners may also contribute to the cost of new infrastructure when they connect to additional services. The following table illustrates our assumptions regarding NCC revenue over Water Plan period expressed in **1 Jan 2013** dollars (excludes CPI annual inflation):

(\$m, Jan 2013)	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Water	0.21	0.23	0.19	0.22	0.23
Sewer	0.25	0.25	0.20	0.24	0.28
Recycled Water	0.07	0.08	0.03	0.06	0.11
<b>Total New Customer Contributions</b>	<b>0.53</b>	<b>0.57</b>	<b>0.42</b>	<b>0.52</b>	<b>0.61</b>

### Miscellaneous Charges

In addition to providing water, recycled water and sewerage services, we also provide other services in connection with our prescribed water and sewerage services. These are known as miscellaneous services and are also prescribed services under the WIRO.

As Westernport Water will only apply annual CPI (inflation rate) to these fees, we anticipate our customers will only experience minor price increases throughout this regulatory period.

### Proposed Water Connection Fees

Please note the prices in the following table are expressed in **1 Jan 2013** dollars (excludes CPI annual inflation).

<b>WATER CONNECTION FEES</b>	<b>2013 - 2014</b>
Standard 20mm Dry Tapping	\$240.95
Standard 20mm Wet Tapping	\$303.80
25mm – fittings supplied by Westernport Water	\$440.05
32mm – fittings supplied by Westernport Water	\$995.45
40mm – fittings supplied by Westernport Water	\$1,309.90
50mm (plus cost of fittings)	\$2,096.00
80mm (plus cost of fittings)	\$2,724.80
100mm (plus cost of fittings)	\$3,510.80
150mm (plus cost of fittings)	\$3,772.80
250mm (plus cost of fittings)	\$5,742.65
<b>WATER DISCONNECTION / PLUG UP FEES</b>	
20mm to 50mm	\$104.75
Larger than 50mm	Actual Cost

### Proposed Wastewater Connection Fees

Please note the prices in the following table are expressed in **1 Jan 2013** dollars (excludes CPI annual inflation).

<b>WASTEWATER CONNECTION FEES</b>	<b>2013 - 2014</b>
Plan of sewer connection per A4 page	\$31.40
Consent to connect – standard residential	\$104.80
Consent to connect – residential other	\$157.10
Consent to connect – industrial / commercial	\$157.10
Consent to connect – industrial / commercial other	\$314.35
As Constructed Drawing per A4 page	\$31.40

## Other Fees

Please note the prices in the following table are expressed in **1 Jan 2013** dollars (excludes CPI annual inflation).

MISCELLANEOUS FEES	2013 - 2014
<b>BACKFLOW PREVENTER</b>	
Assessment of application (per assessment)	\$146.65
Annual agreement renewal fee (per annum)	\$62.85
<b>PRIVATE FIRE SERVICE</b>	
Information fee	\$209.55
Annual inspection fee	\$52.35
Sealing fire hose tap (per seal)	\$52.35
Resealing fire hose tap	\$209.55
Per additional tap fee	\$5.15
<b>TESTING</b>	
Water quality	Actual cost
Water meters smaller than 32mm	\$73.30
Water meters larger than 32mm	Actual Cost
<b>STATEMENTS</b>	
Information statement – standard (each)	\$46.30
Information statement – priority (each)	\$92.60
Pressure flow statement – per test (each)	\$158.75
Account and usage history (in excess of 3 years)	\$69.80
Special meter reading (per reading)	\$52.85
Restrictor removal (each)	\$57.70
Galvanised iron property service pipe replacement	Actual cost
Build over permit (per application)	\$102.85
Dishonoured payment charge	Bank charge
Cutting in to sewer fee	Actual cost
Works agreement – engineering, administration, supervision	Actual cost

## Trade waste

Westernport Water has only one major trade waste customer. The customer has entered a formal agreement. Prices charges for this service are cost reflective and will increase each year by CPI (CPI annual inflation). This agreement will expire during Water Plan 4.

### Impact Analysis of proposed tariff structures and pricing increases (rounded and excludes CPI annual inflation)

The following table illustrates the impact of proposed pricing increases for our residential customers:

(\$ Jan 2013)	2012-13 (Actual)	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Water Usage (200kL/yr)	394	\$358.00	\$368	\$380	\$391	\$403
Water Fixed	\$365	\$360.00	\$370	\$382	\$393	\$405
Sewer Fixed	\$555	\$555.00	\$571	\$589	\$607	\$625
<b>Total Account</b>	<b>\$1,316</b>	<b>\$1,273.00</b>	<b>\$1,309</b>	<b>\$1,351</b>	<b>\$1,391</b>	<b>\$1,433</b>
Water Usage (73kL/yr)	\$120	\$130	\$134	\$138	\$142	\$147
Water Fixed	\$365	\$360	\$370	\$382	\$393	\$405
Sewer Fixed	\$555	\$555	\$571	\$589	\$607	\$625
<b>Total Account</b>	<b>\$1,040</b>	<b>\$1,045</b>	<b>\$1,075</b>	<b>\$1,109</b>	<b>\$1,142</b>	<b>\$1,177</b>
Water Usage (40kL/yr)	\$61	\$71	\$73	\$76	\$78	\$80
Water Fixed	\$365	\$360	\$370	\$382	\$393	\$405
Sewer Fixed	\$555	\$555	\$571	\$589	\$607	\$625
<b>Total Account</b>	<b>\$981</b>	<b>\$986</b>	<b>\$1,014</b>	<b>\$1,047</b>	<b>\$1,078</b>	<b>\$1,110</b>

# 11 | Customer Consultation

Westernport Water engaged with our customers and stakeholders throughout the development of our Water Plan. Our communication strategy focused on reaching as many customer groups within our region, employing a number of different engagement techniques and communication methods. Using these forums and techniques we were able to discuss our Water Plan with a true cross section of our customer base.

To date, we have facilitated six community consultation forums, and presented to five service clubs and business associations, providing opportunities for detailed discussion on water plan proposals.

Westernport Water has an active Customer Consultative Panel (CCP) who met regularly over the last six months to discuss and debate proposed water plan proposals, tariffs, pricing impacts and Guaranteed Service Levels. Our CCP also provided input into the development of our Water Plan customer feedback form (survey).

The advertising campaign preparing the draft for Water Plan 3 ran for 5 weeks leading up to the finalisation our draft submission in June. The awareness campaign of our Water Plan commenced with a media release in mid March, followed by a local radio interview on 3MFM, which played daily for 7 days. Local newspapers and community newsletters formed the foundation of the advertising campaign, with supporting information provided online via our website.

Consultation Sessions	Attendance	Assistance Required
Grantville	1	0
Woolworths Complex	25	5
Cowes Cultural Centre	5	2
Woolworths Complex	18	4
San Remo Street Stall	17	3
Drop in day	2	1
Service Clubs / Business Associations	84	n/a
Phone Calls	17	15
Emails	3	1
Mail correspondence	2	
Surveys completed online	81	?
Surveys returned hard copy	469	
Customer Engagement	724	

All customers were sent consultation information flyers and customer feedback forms outlining Water Plan proposals. This feedback form was also made available electronically online via our website and through an online survey platform (Survey Monkey) which was also utilised to collate the results.

Involving customers early in the preparation of the draft Water Plan, providing fact sheets, a significant time period for customers to provide feedback, plus offering a water-saving appliance as a prize, all proved very effective and greatly increased our response rate, thus providing a statistically valid sample of a true cross section of our customer base.

Providing information stands in local shopping centres and attending community group meetings proved to be far more effective techniques for reaching customers than traditional consultation forums implemented for the previous two water plans.

Westernport Water's has incorporated customer feedback into the final Water Plan 3 submission. Water Plan 3 will be made available on 28 September 2012. Interested customer



and stakeholders can obtain a copy of our Water Plan from Westernport Water's main office and website, further more we will be emailing a copy to all the members of the service clubs and traders associations, and to those who expressed interest during our initial consultation process.

### **Providing feedback on the proposals in our Water Plan**

We welcome feedback from individuals and organisations on our Water Plan.

Feedback may be provided:

- ◆ Via post – 2 Boys Home Road, Newhaven VIC 3922
- ◆ In person at our Corporate Office (at above address)
- ◆ Online via our 'Contact Us' page on our website [www.westernportwater.com.au](http://www.westernportwater.com.au)
- ◆ Email - [westport@westernportwater.com.au](mailto:westport@westernportwater.com.au)

## Appendix A - Compliance with our regulators

Our proposed works to meet compliance obligations over the Water Plan period is summarised and included in the following table:

### 1. Compliance snapshot - environment

Detail	Status - Compliant - Non compliant - Partial compliance	Assessment	Comment/ programs
EPA Licence	Partial compliance	Internal	Exceed Mean and Maximum Daily Flow Rates <ul style="list-style-type: none"> <li>Planned upgrades to Cowes WWTP over regulatory period.</li> <li>Licence amendment application in parallel with Works Approval for Cowes WWTP.</li> </ul>
Candowie Revegetation	N/A	Internal	Compliance with 'Net Gain' requirements under the Federal EPBC Act 1999.
State Environment Protection Policy (Waters of Victoria)	Non compliant	Internal	Ammonia, Nitrogen and Phosphorus SEPP compliance <ul style="list-style-type: none"> <li>Cowes WWTP upgrade to include biological nutrient removal ('BNR') process</li> <li>Licence amendment application to include a Mixing Zone</li> </ul>
Environmental Management System ('EMS')	N/A	Audit	Achieve Australian accreditation of EMS.
Biodiversity assets register	Compliant	Internal	5 year review to be conducted in 2013. Implementation of land management recommendations and conservation requirements our land. Continued support – Landcare.
GEM: Use of reclaimed water State Environment Protection Policy (Waters of Victoria)	Partial Compliance	Internal	Required 30A approval for emergency offsite discharge in 10/11 <ul style="list-style-type: none"> <li>King Rd WWTP scheduled works to include additional irrigation areas and tree plantations.</li> </ul>

## 2. Compliance snapshot – water quality

Detail	Status - Compliant - Non compliant - Partial compliance	Assessment	Comment/ programs
Water quality standards contained in Safe Drinking Water Act 2003 ('SDWA')	Compliant	Internal	Replacement of San Remo Basin cover and liner (Yr 2017) to continue meeting standards and for business continuity.
Delivery of "safe" drinking water as per standards ('SDWA') and regulations 2005 ('SDWR')	Compliant	External	Installation of a UV tertiary treatment process (Yr 2015) to provide a multi barrier approach to mitigate risk of Cryptosporidium and Giardia.
Water quality standards in Schedule 2 of the regulations ('SDWR')	Compliant	Audit	Continued chloramination of water supply to comply with Disinfection By-products standard.
Regulatory obligations ('SDWA') – Total Dissolved Solids ('TDS')	Compliant	Audit	WPW consistently reports a TDS below Department of Health ('DoH') guidelines.
Water Treatment operator training / competency	Compliant	External	<ul style="list-style-type: none"> <li>• WPW is on target to have all operators trained to Cert III in Water Treatment standard by July 2013</li> <li>• Implement a competency based training program in conjunction with the DoH guidelines.</li> </ul>
Compliance with best practice - risk management	Partial Compliance	Audit	Further development of our SCADA system on key water and sewer assets will provide alerts and online reporting on asset performance.
Health - Fluoride Treatment	Compliant	Audit	The DoH will undertake Fluoridation plant audits against a code of practice before end of Dec 2015. The date and year of this audit for WPW is to be determined.
[Possible] changes to regulations ('SDWR') :  Reg. 4 & 5 - Sampling localities Reg. 6 - Backflow protection Reg. 7 - Risk Management Plan audit Reg. 11 - Frequency of sampling Reg. 12 - Sample analysis Reg. 15 - Annual reporting	N/A	To be included in biennial audit of water quality by DoH	WPW will be reviewing our current service area boundaries to ensure this is consistent with GPS mapped data. WPW is currently implementing a backflow prevention program. Sampling schedule and delivery times will be reviewed to meet any changes in regulations. WPW to expand and report on critical control points performance at IBWPP in our annual water performance report.

### 3. Compliance snapshot – corporate

Detail	Status - Compliant - Non compliant - Partial compliance	Assessment	Comment/ programs
Occupational Health & Safety	Compliant	Audit	Assurance of the OHS management system and practices. WPW provides regular refresher training courses on OH&S issues.
<b>The following section relates to [proposed] Statement of Obligations - SoO</b>			
3.2 Board Performance	Compliant	Internal	Annual review and report to the Minister
4.1 Customer engagement	Compliant	Internal	Our Customer Consultative Panel includes representatives covering all our customer groups, incl permanent residents, non-permanent residents, retirees, large commercial, and tourism. WPW provides quarterly newsletter, facilitates an annual open public forum, and conducts an annual customer satisfaction survey.
4.2 Public information	Compliant	Audit	Our website contains information regarding our products and services, tariffs, and contact details. The Essential Services Commission ('ESC') proposes to introduce a web mystery shopper a new performance measure for public information.
4.3 Information for schools	Compliant	Internal	WPW participates in school education forums in our service area.
5.1 Managing Risks	Compliant	Audit	WPW maintains an integrated RM system based on the principles of ISO31000. A annual report of our strategic risks submitted with the Corporate plan
5.2 Managing Incident & Emergencies	Compliant	Audit	WPW will be implementing improvements for our Business Continuity and Disaster Recovery Plans. Annual security exercise conducted, with participation from VicPol, DSE, and local council representatives.
5.3 Dam Safety	Compliant	Audit	Reservoir upgrade project will be completed in 2014. Dam Safety report submitted annually. External expert engaged to provide Dam Safety assessment and operating manuals for Reservoir to ANCOLD standards.
5.4 Blue Green Algae Blooms	Compliant	Internal	WPW maintains reporting protocols consistent with DSE guidelines
6.1 Water Supply Demand Strategy ('WSDS')	Compliant	External	WSDS approved by the Minister (2012)
6.2 Water storage plans for urban system	Complaint	External	Water Security Outlook and Action Plan, Drought Response Plan and Alternative Water Atlas have been prepared (2012)
7.1 Managing [water] Assets	Compliant	Audit	WPW to embed the new Asset Management System functionality across the business. The Strategic Asset Management Plan has been updated (2012) and specific Asset Management Plans are being updated,
7.2 Bulk supply system	Compliant	Internal	Bulk Entitlement ('BE') in place for Candowie, Bass River. WPW to assess practicality of converting Corinella Borefield licence to a permanent entitlement. BE managed within Environmental flows.

## Compliance snapshot – corporate (continued)

Detail	Status - Compliant - Non compliant - Partial compliance	Assessment	Comment/ programs
7.3 Licensed administration functions	TBC		
7.4 Metering	TBC		
7.5 Sewerage services to unsewered urban areas	Compliant	Internal / External	In conjunction with Bass Coast Shire Council WPW will monitor the need for providing reticulated sewerage to the Silverleaves area of Cowes
7.6 Sewerage services to new urban areas	Compliant	Internal	WPW considers the appropriate service options for new areas.
7.7 Sewerage connection to properties	Compliant	Internal	WPW works with Bass Coast Shire Council and EPA in assessing the need fro serviced properties to be connected.
7.8 Trade Waste	Compliant	Internal / External	WPW has policies and procedures in place. A Trade Waste Customer Charter has been submitted to ESC for endorsement.
8.1 Complying with obligations	Compliant	Audit	Audit of compliance framework and systems - planned in the regulatory period.

## Appendix B - Risk Assessment Table

Appendix B provides a summary of our capital expenditure programs and the associated risk assessment:

Project	Cost	Driver	Risk			Financial Impact	Independent assessment	Options
			Likelihood	Impact	Rating			
IBWPP Tertiary Treatment	\$1.5M	Address the risk of cryptosporidium and giardia in treated water	Possible	Catastrophic	Extreme	Reputational Risk – High community impact.  Potential \$1M loss based on risk appetite	undertake a functional design of a UV tertiary treatment process	1. Business as usual
			Candowie is an open catchment with high risk of contamination. UV post filtration will reduce the risk of pathogen filter breakthrough.					2. Install UV disinfection
Pump Station Upgrades	\$3.26M	Critical pump stations capacity to meet forecasted demand and wet weather inflows. Church St, Rhyll Rd, Woolamai, Beachcomber combined with odour control.	Possible	Major	High	EPA fines or prosecution up to \$610K.  EPA notice or undertaking requiring unplanned or unbudgeted works	External assessment of capacity providing input into sewer modelling	1. Business as usual
			Condition assessments of critical pump stations reaching less than optimum performance. Odour complaints leading to an EPA intervention.					2. Redirection of critical flows. 3. Upgrade pump station and redirect critical flows.
Coves Wastewater Treatment Plant (Coves WWTP)	\$2.75M	To cater for future sewerage requirements on Phillip Island through to 2021.  Reduce nitrogen loads in effluent discharge. Inclusion of a full Biological Nitrogen Removal (BNR) process at CWWTP.	Likely	Major	Extreme	EPA fines or prosecution up to \$610K.  EPA notice or undertaking requiring unplanned or unbudgeted works.	Consultants conducted assessment and provided 2012/17 upgrade strategy	1. Business as usual
			Current wastewater treatment process is unable to meet EPA licence requirements.					2. CWWTP planned upgrades
Coves Wastewater Reticulation	\$6.00M	To cater for future population growth	Likely	Major	Extreme	EPA fines or prosecution up to \$610K.  EPA notice or undertaking requiring unplanned or unbudgeted works	External review of wastewater futures strategy	1. Business as usual
			Failure of existing reticulation system, and its ability to cope with future demand.					2. Augment existing gravity sewer system and intermediate pump station facilities estimate \$19M 3. Provide a new regional pump station and divert flows from east and west Coves estimate 17M

Project	Cost	Driver	Risk			Financial Impact	Independent assessment	Options
			Likelihood	Impact	Rating			
Replacement of San Remo Basin cover and liner	\$1.5M	Liner blow off may cause water quality contamination.	Possible	Major	High	Potential \$1M loss based on risk appetite		<ol style="list-style-type: none"> <li>1. Business as usual</li> <li>2. No further option other than to delay</li> <li>3.</li> </ol>
Sludge Management	\$0.35M	CWWTP will not be able to manage its sludge treatment out to 2021, creating excessive emergency work and costs	Likely	Moderate	High	Estimate cost for emergency works ?? EPA notice or undertaking requiring unplanned or unbudgeted works.	Consultants provided 2012/17 upgrade strategy – Master Plan	<ol style="list-style-type: none"> <li>1. Business as usual</li> <li>2. Use Geobags on new dedicated bunded area &amp; existing sludge dry beds. Provide dedicated on-site sludge drying pkans</li> <li>3. Install mechanical dewatering facility and sludge heat dryer. Both high capital and energy costs</li> </ol>
Corporate system replacement programs	\$0.515M (2013)	Addresses the business continued investment in our system capability	Likely	Moderate	High	Failure to provide functional system capability. E.g. software, maintenance equipment .		<ol style="list-style-type: none"> <li>1. Business as usual</li> <li>2. Upgrades in line with business requirements and supplier conditions</li> <li>3. Purchase new systems to meet business requirements</li> </ol>
King Rd WWTP scheduled works	\$0.75M	Address irrigation to land of recycled water capacity. Guidelines for Environmental management – Use of reclaimed water. SEPP WoV. An extra 40ha of irrigation area was required for a 1:10 wet year scenario by 2024	Likely	Moderate	High	EPA notice or undertaking requiring unplanned or unbudgeted works.	Investigation into options and nutrient balance models	<ol style="list-style-type: none"> <li>1. Business as usual</li> <li>2. New lagoon</li> <li>3. Upgrade current lagoon capacity</li> <li>4. Temporary lagoon and additional irrigation area</li> </ol>
Pump Station Replacement Works	\$0.75M	Pump station performance / reliability. Odour control	Possible	Major	High	Financial impact of service disruption and or environmental spills. EPA notice or undertaking requiring unplanned or unbudgeted works.	CEE	<ol style="list-style-type: none"> <li>1. Business as usual</li> <li>2. Upgrade switchboard replacement</li> </ol>
Water main renewal / replacement	\$1.29M	Address the unplanned water bursts. Replace critically corroded AC water main.	Likely	Moderate	High	Unplanned emergency works at extra cost of disruption	Girdwood Contracting	<ol style="list-style-type: none"> <li>1. Business as usual</li> <li>2. Unplanned emergency works – run to fail</li> </ol>

## Appendix C – Capital Expenditure

The following table summarises our capital expenditure program for the Water Plan period:

Project Driver	Project Details	Total for WP3
COMPLIANCE	Cowes Tree Plantation	\$ 75,000
	Cowes WWTP Irrigation	\$ 250,000
	CWWTP - Master Plan Works	\$ 2,750,000
	CWWTP - Sludge Management	\$ 250,000
	IBWPP Tertiary Treatment	\$ 1,520,000
	King Rd - Plantation	\$ 50,000
	KRWWTP - Sludge Management	\$ 10,000
	Odour Control - Fredericks Pump Station	\$ 15,000
	Odour Control - Woolamai Pump Station	\$ 245,000
	IBWPP Sludge Management Program	\$ 125,000
	Wastewater Future - Cowes PS upgrades	\$ 1,310,000
	<b>Compliance Total</b>	
GROWTH	Candowie Upgrade Project (CUP)	\$ 1,367,000
	Church St PS upgrade	\$ 150,000
	Cowes Class A extension - Link main	\$ 560,000
	King Rd - Irrigation	\$ 550,000
	King Rd WWTP Storage Lagoon	\$ 200,000
	Wastewater Future - Cowes reticulation	\$ 6,000,000
	Candowie Upgrade Project (CUP) - additional funding	\$ 420,000
<b>Growth Total</b>		<b>\$ 9,247,000</b>
IMPROVED SERVICES	Landvic updates - automate application to Open Spatial GIS	\$ 30,000
	Medium pressure pump station - alarms	\$ 250,000
	R & D contributions	\$ 125,000
	Rhyll Rd pump upgrade	\$ 100,000
	San Remo Basin HYPO system Upgrade	\$ 100,000
	Sewer main improvements	\$ 500,000
	Carry over projects - refer board report	\$ 600,000
<b>Improved service Total</b>		<b>\$ 1,705,000</b>
RENEWALS	Switchboard Replacements	\$ 300,000
	Corinella Borefield - Permanent PS	\$ 45,000
	CWWTP - Civil & Mech & Elec	\$ 250,000
	IBWPP - Civil & Mech & Elec	\$ 345,000
	IBWPP - Pump & Valve Replacement Program	\$ 150,000
	KRWWTP - Civil & Mech & Elec	\$ 100,000
	Meter replacement program	\$ 180,000
	Motor Vehicle Replacements Program	\$ 300,000
	Water Main Replacement Program	\$ 1,295,000
	San Remo Basin Cover Replacement	\$ 1,545,000
	Solar Battery replacement	\$ 50,000
	SPS - Civil Works	\$ 250,000
	SPS - Mech and Elec Works	\$ 500,000
	Water Distribution system - Mech and Elec Works	\$ 250,000
Woolamai pump station - generator	\$ 100,000	
Stanley Rd - Master Plan	\$ 270,000	
<b>Renewal Total</b>		<b>\$ 5,930,000</b>
NON - PRESCRIBED	Replace gas detectors	\$ 15,000
<b>Non-regulated Total</b>		<b>\$ 15,000</b>
<b>Grand Total</b>		<b>\$ 23,497,000</b>

