

2012 PRICE DETERMINATION INVESTIGATION – REGULATED WATER AND SEWERAGE SERVICES IN TASMANIA

FINAL REPORT



CONTACT DETAILS

Office of the Tasmanian Economic Regulator

Office hours:	8.45am to 5.00pm, Monday to Friday (except public holidays)
Street address:	5 th Floor, 111 Macquarie Street, Hobart, Tasmania 7000
Postal address:	GPO Box 770, Hobart, Tasmania 7001
Telephone:	(03) 6233 6323 or international +61 3 6233 6323
Facsimile:	(03) 6233 5666 or international +61 3 6233 5666
Email:	office@economicregulator.tas.gov.au
Website:	www.economicregulator.tas.gov.au

Printed May 2012
Office of the Tasmanian Economic Regulator

ISBN 978-0-7246-5160-3

Copyright
© Office of the Tasmanian Economic Regulator

TABLE OF CONTENTS

ACRONYMS AND GLOSSARY	I
EXECUTIVE SUMMARY	VII
BACKGROUND	VII
CHALLENGES FACING THE TASMANIAN WATER AND SEWERAGE INDUSTRY ..	VIII
APPROACH TO FIRST PRICE DETERMINATION	IX
REGULATORY COMPLIANCE IMPROVEMENT	X
FINANCIAL SUSTAINABILITY	XI
STRUCTURE OF PROPOSED WATER AND SEWERAGE PRICES	XII
PROPOSED PRICE REFORM APPROACH – PRICE CONSTRAINTS	XIV
PRICING FOR OTHER SERVICES	XVI
1 INTRODUCTION	1
1.1 BACKGROUND	1
1.2 PURPOSE OF PRICE INVESTIGATION AND PRICE DETERMINATIONS	1
1.3 CONTEXT	2
1.4 SCOPE OF THE INVESTIGATION	11
1.5 PRICE DETERMINATION INVESTIGATION	13
1.6 CONSULTATION	14
2 APPROACH TO FIRST PRICE DETERMINATION	17
2.1 APPROACH TO REVENUE AND PRICE REGULATION	17
2.2 REVENUE LIMITS	19
2.3 ASSESSING ASSET VALUES, COSTS AND CAPITAL EXPENDITURE	21
2.4 ASSESSING PROPOSED PRICE AND SERVICE PLANS	22
2.5 ADJUSTMENTS TO THE PRICE DETERMINATION WITHIN THE FIRST REGULATORY PERIOD	24
3 SERVICE STANDARDS AND REGULATORY OBLIGATIONS	25
3.1 IMPLICATIONS OF SERVICE STANDARDS AND REGULATORY OBLIGATIONS	25
3.2 CUSTOMER SERVICE STANDARDS	26
3.3 APPROVED TRANSITIONAL SERVICE STANDARDS	30
3.4 REGULATORY COMPLIANCE IMPROVEMENT	37

4	ESTIMATING REVENUE LIMITS.....	47
4.1	REVENUE LIMITS – PRINCIPLES AND APPLICATIONS.....	48
4.2	REVENUE LIMIT DEFINITIONS.....	49
4.3	REVENUE LIMIT COMPONENTS.....	51
4.4	REVENUE LIMIT CALCULATIONS.....	65
4.5	ASSESSMENT OF REVENUE LIMITS AGAINST EXPECTED REVENUE	68
5	PRICING.....	75
5.1	INTRODUCTION.....	75
5.2	PRICE REFORM APPROACH	76
5.3	STRUCTURE OF REGULATED SERVICES.....	77
5.4	PRICES FOR WATER AND SEWERAGE SERVICES	84
5.5	PRICES FOR OTHER SERVICES	116
	APPENDIX 1 PRICE DETERMINATIONS	A-1
	BEN LOMOND WATER	A-3
	CRADLE MOUNTAIN WATER	A-23
	SOUTHERN WATER	A-49
	APPENDIX 2 POLICIES.....	A-69
	SERVICE CHARGE POLICY	A-70
	DEVELOPER CHARGES PRICING POLICY	A-72
	CUSTOMER CONNECTION POLICY	A-76
	SERVICE EXTENSION, EXPANSION AND INTRODUCTION POLICY.....	A-81
	WATER SUB-METERING POLICY	A-85
	APPENDIX 3 REVENUE LIMITS DATA	A-91
	UPPER, LOWER AND STATUTORY REVENUE LIMITS.....	A-93

ACRONYMS AND GLOSSARY

Term	Meaning within the context of this report
Asset Renewal Annuity (ARA)	Annualised calculation of the future asset renewal and replacement program.
Capex	Capital expenditure (i.e. investment in new regulated assets).
Caps	Caps placed on annual price movements to manage the impact of price increases on customers.
Connection charge	A cost-based charge for connecting a particular customer to water or sewerage infrastructure.
Connection point	The point where the customer's pipes connect to the water or sewerage infrastructure, or such other point as may be prescribed in Regulations made and in force under the <i>Water and Sewerage Industry Act 2008</i> .
Contributed assets	Include developer charges and government grants but exclude equity contributions from the owners of each regulated entity.
CPI	Consumer Price Index.
CSUR	Connection size usage ratio.
Customer	An owner or, owner and occupier, of a property that is connected to a regulated entity's water or sewerage infrastructure (including strata title lot owners); or An occupier of a property that is connected to a regulated entity's water or sewerage infrastructure who is liable for water and sewerage charges; or An owner or occupier of a property that is not connected to a regulated entity's water or sewerage infrastructure but where a regulated service is available and a regulated entity imposes a service charge for that service.
Customer Service Code	<i>Tasmanian Water and Sewerage Industry Customer Service Code</i> .
Customer Service Regulations	<i>Water and Sewerage Industry (Customer Service Standards) Regulations 2009</i> .
Delegate for Dam Safety	Delegate for Dam Safety Regulation (Secretary of the Department of Primary Industries, Parks, Water and Environment (DPIPWE)).
Developer charges	Includes headworks charges, assets gifted by developers and cash payments made by developers to regulated entities for the construction of new reticulation works.
DORC	Depreciated Optimised Replacement Cost.
Economic Regulator	The Tasmanian Economic Regulator as appointed under the <i>Economic Regulator Act 2009</i> .
EPA	Environment Protection Authority.

Term	Meaning within the context of this report
ET (Equivalent Tenement)	A measure of the demand that a development will place on infrastructure in terms of water consumption and sewage discharge, compared to a standard residential allotment. ET is also the basis for the calculation of target tariffs for customers for sewerage services.
Existing assets	All assets transferred to a regulated entity before 1 July 2011 under section 41 of the Water and Sewerage Corporations Act.
First regulatory period	1 July 2012 to 30 June 2015.
Fixed charge	A recurrent charge for the provision of a regulated service to a customer but not including a variable charge.
Free water allowances	A free water allowance allows a customer to use a predetermined volume of water without incurring a variable charge.
Full cost recovery	A revenue limit that results in a regulated entity recovering all of the costs associated with providing a regulated service.
Guideline	The Price and Service Plan Guideline published by the Economic Regulator in September 2011.
Headworks assets	Water or sewerage infrastructure, excluding reticulation assets and private plumbing, e.g. dams, reservoirs, water treatment plants, sewerage treatment plants, pump stations, water and sewerage trunk mains.
Headworks charges	A form of developer charge levied as a contribution towards the cost of existing or proposed headworks assets used to service developments, which increase demand upon water and/or sewerage infrastructure.
Industry Act	<i>Water and Sewerage Industry Act 2008.</i>
Industry regulators	Parties other than the Economic Regulator that have responsibility for regulating aspects of the Tasmanian water and sewerage industry (for example, the Delegate for Dam Safety, the Director of Public Health and the Director EPA.)
Kilolitre	A metric unit of volume or capacity equal to 1 000 litres.
kPa	A metric measure of pressure.
Limited water quality customer	A customer receiving water from a supply which has a permanent boil water alert in place or a customer receiving water from a supply the regulated entity has declared to be non-potable.

Term	Meaning within the context of this report
Limited water supply customer	<p>A customer:</p> <ul style="list-style-type: none"> – connected to a water main that periodically does not contain water under positive pressure; or – with a connection designed to provide low or intermittent flow, such as where the customer has been required to install, operation and maintain an individual tank or pump; or – connected to a non-reticulation water main that is subject to significant pressure variations due to either: <ul style="list-style-type: none"> o a pumped supply where the low pressure is below 50 kPa and the high pressure is above 500 kPa; or o an inlet supply to a trunk reservoir such that when the reservoir inlet valve is open the pressure is below 50 kPa; or – receiving a supply the regulated entity determines to be inadequate.
Lower revenue limit	The minimum amount of revenue a regulated entity needs to recover to ensure that it covers its costs of operation and achieves sustainability.
Minister	Minister for Primary Industry, Parks, Water and Environment.
Motor home dump point	A facility intended to receive the discharge of wastewater from any holding tank or similar device installed in a recreational vehicle.
NPR	National Performance Reporting.
New assets	All assets purchased or constructed by a regulated entity since the commencement of its operations on 1 July 2009.
Nominal dollars	The actual price of an item during a specific year i.e. nominal dollars are not adjusted for the effects of inflation.
NPV	Net Present Value.
NWI	National Water Initiative.
OM	Operating and maintenance expenditure i.e. the cost of operating and maintaining the water and sewerage systems and associated administrative costs.
Portable metered standpipes	A portable water hydrant which allows a customer to connect and draw water at authorised points throughout a regulated entity's network.
Price and service plan	A regulated entity's price and service plan approved by the Economic Regulator under section 65 of the Industry Act.
Price constraints	Caps placed on annual price movements to manage the impact of price increases on customers.
Price Determination	A determination made by the Economic Regulator under section 66 of the Industry Act.

Term	Meaning within the context of this report
Price Determination Investigation	An investigation conducted to gather information required by the Economic Regulator before making a Price Determination in respect of a regulated service.
Pricing Approach Paper	<i>Tasmanian Water and Sewerage Industry 2011-12 Pricing Investigation Principles and Approach Consultation Paper</i> (March 2011).
Pricing principles	The principles set out in sections 68 and 68AA of the Industry Act and in the Pricing Regulations.
Pricing Regulations	<i>Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011</i> .
Pricing zones	An area of land where the prices charged for each regulated service are the same; that is, the same sets of prices apply to each customer class within a specified area.
Proposed price and service plan	A price and service plan submitted by a regulated entity under section 65 of the Industry Act.
RAB	Value of regulated asset base.
Real dollars	Nominal figures which have been adjusted for the effects of inflation (CPI).
Regulated assets	Assets used to provide regulated services.
Regulated entity	A person holding a licence under the Industry Act [currently, Tasmanian Water and Sewerage Corporation (Southern Region) Pty Ltd trading as Southern Water, Tasmanian Water and Sewerage Corporation (Northern Region) Pty Ltd trading as Ben Lomond Water and Tasmanian Water and Sewerage Corporation (North Western Region) Pty Ltd trading as Cradle Mountain Water].
Regulated services	Services or activities for which a licence is required under section 30 of the Industry Act.
Regulatory period	A period covered by a Price Determination.
Reticulation assets	Water or sewerage infrastructure that is not headworks assets or private plumbing.
Returns to owners	Forecast dividends, income tax equivalents and guarantee fees to be returned to owner councils by each regulated entity during the first regulatory period.
Reuse water	Water discharged from a sewage treatment plant that is reused for purposes such as irrigation.
Ring-fencing	The separation of a regulated entity's accounts for the purpose of economic regulation, including splitting between regulated and unregulated components.
Section 61 contract	A contract between a regulated entity and a customer in accordance with section 61 of the <i>Water and Sewerage Industry Act 2008</i> , related to regulated services but to which pricing and terms of the Price Determination do not apply.

Term	Meaning within the context of this report
Service introduction charges	A charge on a property to cover the cost of installing, altering or utilising a regulated entity’s assets so as it can provide a regulated service to that property (excludes a connection charge, fixed charge or a developer charge).
Statutory revenue limit	The amount of revenue required to achieve the level of cost recovery stipulated in section 68(1A) of the Industry Act applying separate WACCs for existing and new assets.
Target tariff	Target tariffs represent transition tariff paths that apply in particular areas or regions. As part of tariff reform arrangements, customers are moved to these target tariffs consistent with proposed constraints on price movements.
Tariffs	Prices charged by regulated entities for the provision of regulated services made up of fixed charges, variable charges and miscellaneous fees and charges.
Third party capital contributions	Third party capital contributions include developer charges, service introduction charges and government grants.
Trade waste	Liquid waste generated by any industry, business, trade or manufacturing process.
Trade waste consent	A legally binding agreement between a customer and a regulated entity allowing the customer to discharge trade waste into the sewerage system.
Transition period	The period from 1 July 2012 to 1 July 2020 (prescribed in regulation 32 of the Pricing Regulations.)
Transitional service standards	Standards of service proposed by regulated entities to apply during the first regulatory period.
Unregulated assets	Assets used to provide unregulated services.
Unregulated services	Services that are not subject to regulation including water for irrigation, reuse water and stormwater services via a combined sewerage stormwater system.
Upper revenue limit	The revenue amount the regulated entities need for full cost recovery (including a commercial rate of return on capital investments).
Variable charge	A charge based on the volume of water delivered to, or sewage removed from, the property to which the charge relates.
Water and Sewerage Corporations Act	<i>Water and Sewerage Corporations Act 2008.</i>
WACC	Weighted average cost of capital.

EXECUTIVE SUMMARY

This Report presents the outcomes from the Economic Regulator's first independent Price Determination investigation for the Tasmanian water and sewerage industry. The decisions made by the Economic Regulator apply from 1 July 2012 to 30 June 2015.

The water and sewerage industry is critical to public health, the protection of the environment and economic development potential across Tasmania.

The extent of the challenges currently facing the industry means that not all concerns of customers, stakeholders and regulators will be able to be addressed in the first regulatory period. These issues have been allowed to develop over a number of years, if not decades, and will take a similar time to resolve.

However, it is considered that the decisions contained in this Report represent an appropriate balance, and important first step, in improving the Tasmanian water and sewerage industry.

It should be noted that there are a number of decisions in this Report to align prices, services and policies across the three regions of the State. This harmonisation has been proposed on the basis of ensuring uniformity and clarity for customers (noting that a number of customers operate across regions). However, it may also be of assistance in the future if the decision is made to amalgamate the current three water and sewerage corporations (regulated entities).

Background

The Tasmanian water and sewerage industry has undergone significant structural and regulatory reform over recent years.

From 1 July 2009, three water and sewerage local government owned corporations were established:

- Ben Lomond Water (operating in the northern region of the State);
- Cradle Mountain Water (operating in the north western region); and
- Southern Water (operating in the southern region).

These corporations provide water and sewerage services that were previously provided by 29 local councils. A common service provider corporation (Onstream) was also established as a subsidiary of the three corporations to provide services such as HR, payroll, billing etc to all three corporations.

As part of this reform, an economic regulatory framework was applied to the industry, in addition to existing regulatory arrangements in relation to public health, environmental protection, dam safety and occupational health and safety.

The economic regulatory framework is focussed on ensuring competitive market outcomes from the sector in relation to both price and service as well as ensuring the financial sustainability of the water and sewerage corporations and providing sufficient funding to meet other regulatory obligations.

The economic regulatory framework for the industry is administered by the independent Tasmanian Economic Regulator under the provisions of the *Water and Sewerage Industry Act 2008* and regulations under that Act. Under these arrangements, providers of regulated water and sewerage services are required to be licensed. The licences then bind the water and sewerage providers to comply with a number of regulatory obligations.

In relation to service, the economic regulatory framework requires licensed water and sewerage providers (regulated entities) to comply with a number of service standard obligations set out in the Water and Sewerage Customer Service Code (the Code) issued by the Economic Regulator. In addition regulated entities are required to adopt appropriate management practices in relation to asset management, emergency management and regulatory compliance. The performance of the industry is also reviewed and reported on through annual State of the Industry Reports prepared by the Economic Regulator.

The economic regulatory framework also provides for the regulation of prices for water and sewerage services. Since the regulated entities started operations, price regulation has been undertaken by the Tasmanian Government through Interim Price Orders issued by the Treasurer. This was a temporary measure only and, from 1 July 2012, water and sewerage prices are to be set independently by the Economic Regulator through Price Determinations that will apply for the first regulatory period (1 July 2012 to 30 June 2015).

In late 2011, the Economic Regulator started an investigation to make the first independent Price Determination for the Tasmanian water and sewerage industry.

A draft Report was released for public consultation in March 2012.

This Report represents the final outcomes of the Price Determination investigation.

More information on the context for the Price Determination investigation and the regulatory framework applying to the Tasmanian water and sewerage industry can be found in Chapter 1 of this Report.

Challenges facing the Tasmanian water and sewerage industry

The recent reforms of the Tasmania water and sewerage industry were undertaken to address a number of issues identified by a State Government review. From the start of their operations the three regulated entities inherited a number of significant challenges, including:

- a general under-recovery of revenue meaning that the regulated entities are currently not financially sustainable into the future at current revenue levels;

- inadequate or unknown performance in relation to drinking water quality, with a number of permanent or temporary boil water alerts in place across the State;
- widespread non-compliance of sewerage treatment plants with their environmental permits;
- inadequate, or non-existent, asset management practices, particularly in relation to dam safety;
- inadequate, or unknown, customer service standards; and
- a myriad of different pricing structures across council areas, with prices often applied on an unfair basis without reflecting actual costs.

These issues have been allowed to develop over years, if not decades. Fully addressing these issues will require significant time and capital investment.

Details on the issues facing the industry and recent performance by the regulated entities are contained in the 2010-11 Tasmanian Water and Sewerage State of the Industry Report, released by the Economic Regulator on 15 March 2012.

Approach to first Price Determination

Given the extent of the challenges facing the industry achieving all reform objectives will not be possible during the first regulatory period. This is mainly due to the need to manage the impact of price changes on customers as well as ensuring the ongoing financial viability of the regulated entities. On this basis, there is a need to prioritise the reform objectives for the first Price Determination investigation.

The Economic Regulator has set out the following reform priorities for the first regulatory period:

- at a minimum, generating revenue that will ensure the viability of each regulated entity throughout the first regulatory period;
- commencing the transition of revenues to achieve financial sustainability;
- achieving two-part pricing for water (with one fixed charge and a separate variable charge based on metered water usage) for all customers from 1 July 2012, including removing free water allowances;
- commencing the transition of customers to a rational price structure consistent with legislative pricing principles;
- not increasing existing cross-subsidies between customers and, if possible, reducing cross-subsidies; and
- managing the impact of price changes on customers.

The other consideration for the first Price Determination investigation is timing. Delays in the finalisation of the Government's Pricing Regulations significantly

compressed the time available to the Economic Regulator to conduct the first Price Determination investigation.

In addition, the requirement under Industry Act to take into account the impact of price changes on customers combined with the current revenue under-recovery by each regulated entity, meant that movements in annual prices will be regulated. That is, prices will be determined by applying a limit on annual price movements. As a result, each regulated entity's annual revenue will be subject to monitoring rather than direct revenue regulation during the first regulatory period.

Caps (price constraints) will be placed on annual price movements and these price constraints, together with the amount of water used, will determine the revenue received by each regulated entity in each year of the first regulatory period. To make it clearer for customers, price constraints will be expressed in the Price Determination in nominal terms (i.e. in actual dollar terms, rather than needing to be adjusted for inflation over the period).

Delays in finalising the Government's Pricing Regulations also meant that there was not enough time for independent reviews of the regulated entities' asset values and costs as would typically occur in a Price Determination investigation. However the inability to undertake these independent reviews was not critical, as it will be price caps, not asset values and costs, which will determine prices for the first regulatory period.

More detail on the approach to the first Price Determination investigation can be found in Chapter 2.

Regulatory compliance improvement

In addition to pricing reform, one of the key drivers of the Tasmanian Government's reform of the water and sewerage industry was the need to improve levels of customer service and compliance with regulatory obligations.

In relation to customer service standards the Code allows regulated entities time to improve standards to acceptable levels. Each regulated entity has proposed transitional service standards for each year of the first regulatory period. The Economic Regulator has assessed these proposed transitional service standards in terms of whether they:

- are consistent with the minimum service standards within the Code (in terms of definition);
- set a service transition path that will result in the minimum service standard targets being met prior to the end of the second regulatory period;
- are consistent with available information on actual performance (i.e. are they realistically achievable?);
- reflect the impact of proposed expenditure programs; and

- reflect customer preferences (especially any identified priorities for service standard improvement).

The Economic Regulator has decided to accept the revised transitional service standards proposed by the regulated entities in their submissions on the draft Report.

In addition to customer service issues, broader regulatory compliance improvement and enforcement across the water and sewerage sector remains the responsibility of the Tasmanian industry regulators, being the Environment Protection Authority (EPA), Director of Public Health and the Secretary of the Department of Primary Industries, Parks, Water and Environment (DPIPWE), who is the Delegate for Dam Safety Regulation.

It is acknowledged that some areas of non-compliance may not be able to be rectified for some time. Compliance improvement plans and programs are needed, therefore, to ensure that progress is made towards meeting the priority compliance improvement expectations of industry regulators.

The Economic Regulator expected that each regulated entity would liaise closely with the other Tasmanian industry regulators in preparing their proposed Price and Service Plans to ensure that each regulator's reasonable compliance improvement expectations would be met over the first regulatory period.

The appropriateness of expenditure proposals in each proposed Price and Service Plan, and the compliance improvement outcomes they are expected to deliver, has been reviewed as part of the Price Determination investigation.

The Economic Regulator consulted with other Tasmanian water and sewerage industry regulators prior to the release of the draft Report to ensure the compliance improvement outcomes agreed to between each regulated entity and industry regulators are reflected in the relevant regulated entity's proposed Price and Service Plan.

The Economic Regulator consulted again with Tasmanian industry regulators after public consultation, and prior to the release of this Report and Price Determinations.

More detail on regulatory compliance is included in Chapter 3.

Financial sustainability

As discussed, the focus of the first Price Determination investigation is the regulation of prices, rather than revenue. That said, it is important to establish revenue limits as part of the first Price Determination investigation as it enables a comparison against expected revenue in each year to:

- assess whether the regulated entities are expected to achieve a financially sustainable level of revenue during the first regulatory period; and
- act as a basis of comparison to identify the extent of further revenue increases required to achieve legislative revenue limits and full cost recovery.

The Economic Regulator has assessed the revenue that each regulated entity expects to receive in each year of the first regulatory period (based on their preferred price constraints) and compared this against the following revenue limits:

- the upper revenue limit (full cost recovery);
- the lower revenue limit (sustainability threshold); and
- the statutory limit (the maximum revenue permitted under the Industry Act).

As a result of this analysis, Ben Lomond Water is expected to achieve moderate increases in annual revenue from customers over the first regulatory period. Even so, Ben Lomond Water is expected to remain in a financially unsustainable position. Increased revenue from customers and increased debt will be utilised to fund significantly increased returns to owners over the first regulatory period and to fund capital investment (capex) at levels that are nevertheless expected to decline after the first year of the regulatory period.

For Cradle Mountain Water, the impacts of its price reform proposals are expected to result in significant increases in annual revenue over the first regulatory period. The extent of revenue growth means that Cradle Mountain Water will achieve the lower revenue limit (financial sustainability) in the second year of the regulatory period. However, Cradle Mountain Water's relatively higher debt levels appear to be restricting its ability to source funds through additional debt. As a possible consequence, Cradle Mountain Water has elected to reduce levels of capex over the period and apply the expected growth in revenue sourced from customers to meet increased OM expenditure and make increased returns to owners.

For Southern Water, it is expected that the impacts of price reform will result in small increases in annual revenue. However the lack of revenue growth means that Southern Water remains in a financially unsustainable position over the period (although it is close to achieving the lower revenue limit). Despite declining dividend payments, returns to owners are forecast to remain constant over the first regulatory period due to the expected payment of higher income tax equivalents and guarantee fees. Based on significant increases in its debt servicing costs, Southern Water is also required to utilise debt to fund its capex program.

None of the regulated entities are expected to approach the statutory or upper revenue limits during the first regulatory period.

Whilst the Economic Regulator has no legislated responsibility in relation to the payment of dividends to owner councils, this Report discloses returns to owners (i.e. dividends, income tax equivalent payments and guarantee fees) in response to interest from stakeholders and to inform public debate. More detail on the calculation and analysis of revenue limits is included in Chapter 4.

Structure of proposed water and sewerage prices

Prior to the industry reform process, the prices charged by local governments for water and sewerage services varied markedly between municipalities in terms of

both the basis for setting prices and the levels of prices. The current structure and level of prices for water and sewerage services are a legacy of those former council arrangements.

The Economic Regulator identified the need to start this price reform process as a priority for the first regulatory period.

Each of the regulated entities proposed a price reform approach that involves transitioning customers to defined target tariffs.

The Economic Regulator has decided to approve the basis and structure of tariffs proposed by the regulated entities where:

- fixed water charges will be determined by the size of the water connection;
- variable water charges will be determined on water usage (with free water allowances to be removed); and
- sewerage charges will be determined based on the assessed equivalent tenements (ETs) of each property (an ET is a classification used to measure the demand a property will place on infrastructure - for example, a single residential property is rated as one ET whilst a hotel may be rated as 50 ETs).

The Economic Regulator has also required the regulated entities to adopt the following customer classes:

- full service customers;
- limited water quality - customers receiving water from a supply which has a permanent boil water alert in place or customers receiving water from a supply the regulated entity has declared to be non-potable;
- limited water supply - customers that:
 - are connected to a water main that periodically does not contain water under positive pressure; or
 - have a connection designed to provide low or intermittent flow, such as where the customer has been required to install, operation and maintain an individual tank or pump; or
 - are connected to a non-reticulation water main that is subject to significant pressure variations due to either:
 - a pumped supply where the low pressure is below 50 kPa and the high pressure is above 500 kPa; or
 - an inlet supply to a trunk reservoir such that when the reservoir inlet valve is open the pressure is below 50 kPa; or
 - receive a supply the regulated entity determines to be inadequate; and
- combined limited water quality and limited water supply.

The Economic Regulator has also required the regulated entities to adopt a single pricing zone for each region, such that prices will be transitioned to one consistent set of tariffs across each region.

It is considered that the above arrangements meet the pricing principles under the Industry Act and Pricing Regulations. However, whilst it is accepted that it will take some time to transition all customers to these target tariffs, in terms of the transition period specified in the Industry Act, it is intended that cost reflective pricing will be fully implemented by the end of the second regulatory period. Achieving this outcome will require customers above the target tariff to be transitioned down to the target tariff by 30 June 2020.

Further information on the structure and basis of proposed water and sewerage tariffs can be found in sections 5.3 and 5.4 of Chapter 5 of this Report.

Proposed price reform approach – price constraints

The Industry Act also requires the Economic Regulator to consider the impact of the rate of change of prices on customers.

The three regulated entities have all noted that the pricing arrangements they inherited from councils involve significant differences in the levels of prices and generally involve an under-recovery of revenue. It is not possible, therefore, to move customers to uniform tariffs immediately without significant price shocks for some customers (through the adoption of cost reflective tariffs) or through a significant revenue loss (through the adoption of lower uniform tariffs that do not reflect the cost of providing the services).

The regulated entities have, therefore, proposed an approach that commences the transition to uniform tariffs whilst managing the impact upon customers.

This price reform approach involves transitioning customers to identified target tariffs for water and sewerage charges and using caps on annual increases in prices. Under this approach:

- customers below the target tariff will have their prices increased by the maximum amount permitted under the price constraint;
- customers on the target tariff will have their prices increased by the projected annual increase in the target tariff (which is less than the amount permitted under the price constraints); and
- customers above the target tariff will have their prices frozen (meaning prices would be maintained at 2011-12 levels) – although Southern Water and Cradle Mountain Water proposed that such customers have their prices reduced by five per cent in the final year of the first regulatory period (2014-15), Ben Lomond Water proposed considering such a reduction at that time depending on its financial position.

The target tariffs have been determined based on judgments by the regulated entities on a transition path that commences the movement of customers towards uniform cost reflective tariffs.

The level of the target tariffs differs across regulated entities due to differences in pricing arrangements inherited from councils and reform priorities specific to each regulated entity. For example, Cradle Mountain Water has adopted target tariffs that transition customer fixed charges to a higher level to achieve a greater degree of revenue certainty, whereas Southern Water has prioritised transitioning customers to uniform cost reflective water usage charges in conjunction with the rollout of water meters in the southern region.

The actual amount paid by a customer in each year of the first regulatory period will depend on their starting point (i.e. the amount they paid in 2011-12), but the long term objective is to move customers to the target tariffs.

The Economic Regulator assessed the preferred price constraint scenario against higher (15 per cent or \$75) and lower (five per cent or \$25) price constraint scenarios and found that adopting the lower price constraint scenario would be unlikely to achieve the desired price reform or address the regulated entities' current financial unsustainability. Whilst adopting the upper price constraint scenario would address these issues, and provide the opportunity to provide increased dividends to councils, the annual increases in price permitted under this scenario may represent a significant price shock to some customers.

On that basis, the Economic Regulator has decided that the preferred price constraint scenario provides the best balance between improving each regulated entity's financial sustainability, addressing regulatory compliance issues and managing the impact of price increases on customers.

There are, however, some exceptions to the adoption of the preferred price constraint scenarios.

The Economic Regulator requires Ben Lomond Water to reduce the prices paid by customers above the target tariff in 2014-15 by five per cent consistent with the arrangements proposed by Cradle Mountain Water and Southern Water.

The Economic Regulator has also accepted the arrangements put forward by Cradle Mountain Water to move customers in the Kentish municipality paying above the water target tariff, directly to the relevant fixed water target tariff from 1 July 2012. In doing so, the Economic Regulator notes that this reflects the significantly higher prices that customers in this area inherited from previous council arrangements and is only financially possible for Cradle Mountain Water to deliver due to the relatively small number of customers involved.

The Economic Regulator also requires Cradle Mountain Water to apply the higher price constraint of the greater of \$75 and 10 per cent to the water service component for Burnie customers over the first regulatory period to enable the removal of free water allowances for those customers by 1 July 2013 and maintain the variable water charge at a reasonable level. This reflects the generally lower

water prices paid by customers in this area under the arrangements inherited from Burnie City Council.

Further information on pricing for water and sewerage services can be found in section 5.4 of Chapter 5 of this Report.

Pricing for other services

Each regulated entity proposed charging for a range of other services associated with the provision of regulated water and sewerage services. Each regulated entity provided the following proposed policies as attachments to their proposed Price and Service Plans:

- Service Charge Policy;
- Developer Charges Pricing Policy;
- Customer Connection Policy;
- Service Extension, Expansion and Introduction Policy; and
- Water Sub-metering Policy.

A number of issues were identified with the content of the policies proposed by the regulated entities. As a result, the Economic Regulator redrafted the policies to ensure that they complied with the relevant regulatory and legislative provisions, were understandable to the reader, and consistent in their drafting structure and use of terminology. Such revisions would usually be undertaken by the regulated entities in discussion with the Economic Regulator. However, the time constraints placed on the conduct of the first Price Determination investigation meant that this redrafting had to be performed without input from the regulated entities.

The services provided under these policies are generally consistent across the State. Given that many customers operate in more than one region, it was considered desirable to achieve maximum uniformity to improve clarity and consistency for customers.

The Economic Regulator, therefore, requires each regulated entity to adopt the policies provided at Appendix 2 to this Report.

In relation to pricing for trade waste customers, the Economic Regulator has decided to accept the arrangements put forward by the regulated entities where trade waste customers are categorised and treated as follows:

- Category 1 and 2 (low volume / low impact) trade waste customers operating under a standard regulated contract (section 60 of the Industry Act); and
- Category 3 and 4 (high volume / high impact) trade waste customers operating under a negotiated section 61 contract.

The Economic Regulator has also accepted the trade waste charges proposed by the regulated entities for 2012-13, requiring these charges to be uniformly indexed

at 2.6 per cent per annum to account for inflation (rather than the range of annual increases proposed by the regulated entities).

In addition, the Economic Regulator requires each regulated entity to amend its Price and Service Plan to include an undertaking that prices negotiated with category 3 and 4 trade waste customers will provide a reasonable transition over a period that reflects the time it would take for a trade waste customer to implement appropriate pre-treatment if it intended to do so.

Detailed discussion of the policies and proposed trade waste charging arrangements is included at sections 5.5.1 to 5.5.7 inclusive of Chapter 5 of this Report.

The Economic Regulator has also decided to approve the various miscellaneous fees and charges proposed by the regulated entities for 2012-13 but requires these amounts to be increased by 2.6 per cent per annum for the remainder of the first regulatory period to reflect inflation (rather than the range of annual increases proposed by the regulated entities).

The detailed miscellaneous fees and charges for each regulated entity can be found at Schedule 3 to each Price Determination included at Appendix 1 of this Report.

Next steps

Each regulated entity is now required to amend its Price and Service Plan to comply with the decisions reflected in this Report and the Price Determinations and resubmit their Plans, policies and customer contracts to the Economic Regulator on or before 15 June 2012.

The Economic Regulator intends approving each regulated entity's Price and Service Plan (including policies) by 30 June 2012. Prior to approval the Economic Regulator may amend the Price and Service Plans to ensure that they comply with the decisions reflected in this Report and the Price Determinations.

Enquiries

Enquiries about this Report and the Price Determinations should be directed to:

Glenn Bounds
Office of the Tasmanian Economic Regulator
Telephone: 03 6233 6323
Facsimile: 03 6233 5666

Email: office@economicregulator.tas.gov.au

Office of the Tasmanian Economic Regulator
GPO Box 770, HOBART TAS 7001

1 INTRODUCTION

This chapter provides an overview of the context, background and conduct of the first independent Price Determination investigation for the Tasmanian water and sewerage industry.

For the first water and sewerage Price Determination investigation the Tasmanian Economic Regulator faces a challenging/unusual set of circumstances, including:

- significant under recovery of revenue across the industry;
- limited time in which to complete the Price Determination investigation, due to factors beyond the Tasmanian Economic Regulator's control; and
- limited financial and service provision data.

In response to these circumstances, rather than prices being determined by revenue requirements, based on efficient costs, prices will be set by placing limits (caps) on annual price increases.

Nevertheless, the Price Determinations will, with the information and time available, start transitioning the industry towards financial sustainability and more equitable pricing.

In the future, the form of regulation is likely to be more consistent with arrangements in other jurisdictions and will be based on assessments of efficient costs, asset values, levels of capital investment and an assessed risk-based return on assets.

1.1 Background

The Tasmanian Economic Regulator will commence the independent regulation of prices in the Tasmanian water and sewerage sector from 1 July 2012. This involves conducting a Price Determination investigation to determine prices and service standards to apply to regulated water and sewerage services for the period 1 July 2012 to 30 June 2015.

1.2 Purpose of Price Investigation and Price Determinations

The purpose of the Price Determination investigation has been to gather information to enable the Economic Regulator to make a Price Determination in respect of regulated water and sewerage services provided by each of the three regulated entities.

Ben Lomond Water, Cradle Mountain Water and Southern Water are the regulated entities to which the Price Determinations will apply.

Each Price Determination specifies the method for determining the maximum prices that each entity can charge, for the supply of regulated water and sewerage services for each financial year of the regulatory period; that is, for the 2012-13, 2013-14 and 2014-15 financial years.

The Price Determinations are based on information provided by the regulated entities in their proposed Price and Service Plans which were submitted to the Economic Regulator on 31 October 2011.

1.3 Context

Prior to 2009-10, reticulated urban water and sewerage services in Tasmania were provided by Tasmania's 29 local councils. Service standards for the provision of water and sewerage services varied considerably across Tasmania, with little direct regulation of customer service standards. Additionally, prices charged for water and sewerage services varied markedly between municipalities in terms of both the basis for setting prices and the levels of prices.

In 2006, a Government review identified the need for structural and regulatory reform of the water and sewerage industry to address a number of critical environmental, public health, economic and financial issues facing the sector which were having an adverse impact on the Tasmanian community.

In response to the Government's review numerous acts, regulations, orders, codes and guidelines have been introduced as part of the reform process. For more information about these refer to section 1.3.2 below.

The major structural changes were introduced through the *Water and Sewerage Corporations Act 2008* (Water and Sewerage Corporations Act) and included:

- the creation of the three regional water and sewerage corporations (the regulated entities) and a fourth common service corporation, Onstream; and
- the transfer of the water and sewerage assets, liabilities and employees from councils and bulk water authorities to the regional corporations or the common service corporation.

From 1 July 2009, the three regional water and sewerage corporations, Ben Lomond Water (northern region), Cradle Mountain Water (north-western region) and Southern Water (southern region), took over the local council operations and began delivering water and sewerage services in their respective regions.

The *Water and Sewerage Industry Act 2008* (Industry Act) established the economic regulatory framework and provided for a number of transitional arrangements to apply until all elements of the new regulatory framework were fully implemented. Under the Industry Act, the Treasurer has the power to issue interim pricing orders (IPOs) prior to independent price regulation commencing. The original intent of the IPO was to transition prices paid by customers closer to levels they will pay when full price regulation starts on 1 July 2012 thereby ensuring customers do not face a price shock when the first regulatory period starts.

The IPO applied from 1 July 2009 and provided for price increases of up to 10 per cent per annum based on the previous year's bill. This was followed by an amended IPO in February 2010 which limited the maximum price increase to five per cent per annum.

Additional amendments to the IPO came into effect on 1 July 2011 which limited increases to fixed charges for each service to the greater of 10 per cent or \$50 (over 2010-11 charges), and applied a 10 per cent cap to variable charges.

1.3.1 Structure of industry

Ben Lomond Water, Cradle Mountain Water and Southern Water own, control and operate water supply and sewerage systems in Tasmania. The corporations manage all aspects of the water supply chain from dams and reservoirs to customer property connections and from customer sewer connections to wastewater treatment and disposal. The corporations are subject to various public health, environmental and customer service regulatory requirements.

- Ben Lomond Water services the city of Launceston and the municipal areas of Break O'Day, Dorset, Flinders, George Town, Meander Valley, Northern Midlands and West Tamar.
- Cradle Mountain Water services the cities of Burnie and Devonport and the municipal areas of Central Coast, Circular Head, Kentish, King Island, Latrobe, Waratah-Wynyard and West Coast.
- Southern Water services the cities of Hobart, Clarence and Glenorchy and the municipal areas of Brighton, Central Highlands, Glamorgan-Spring Bay, Huon Valley, Kingborough, Derwent Valley, Sorell, Southern Midlands and Tasman.

Under the Water and Sewerage Corporations Act, a proprietary company limited by shares was incorporated for each region, with the councils within each region as its shareholders.

The councils, as shareholders, receive all returns (dividends, income tax equivalents and guarantee fees).

Each regional corporation has a board of management including a common chairperson, three common directors and two regional directors.

Each regional corporation provides regulated water and sewerage services and unregulated services.

Regulated services are services or activities that require a licence under the Industry Act. In general, regulated services include reticulated water and sewerage services and activities that support those services (including the treatment of water and wastewater).

Unregulated services are those services either exempted under the Industry Act or declared by order of the Minister for Primary Industries, Parks, Water and Environment to be unregulated.

The most significant unregulated services provided by the regulated entities include:

- water for irrigation;
- reuse water; and
- stormwater services via a combined sewerage/stormwater system.

The Minister has also exempted a number of entities providing water and sewerage services from the requirement to be licensed under the Industry Act. This effectively means that only the three water and sewerage corporations are currently required to be licensed.

A person or entity is exempt from the requirement to be licensed if the person (including a body corporate or an unincorporated body of persons) owns or operates infrastructure used for the provision of a water or sewerage service to another person, or provides a water or sewerage service to another person, but whose primary function is not being a provider of the relevant service, i.e. the provision of the relevant service is ancillary to their primary purpose.

The following activities are also exempt from the requirement to be licensed:

- providing water and/or sewerage services, while owning or operating a caravan park, to a person occupying a site within the caravan park;
- providing water and/or sewerage services, while owning or leasing a building, to occupants of the building;
- providing water and/or sewerage services, while owning or managing a shopping centre, to occupants of the centre;
- providing water and/or sewerage services to another person for free; and
- providing water and/or sewerage services to not more than 250 customers.

1.3.2 Tasmanian legislative and regulatory framework

Economic regulation of the Tasmanian water and sewerage industry, and the conduct of the Price Determination investigation in particular, are governed by the:

- *Water and Sewerage Industry Act 2008* (Industry Act);
- *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011* (Pricing Regulations);
- *Water and Sewerage Industry (Customer Service Standards) Regulations 2009* (Customer Service Regulations);
- Customer Service Code (Code); and
- Price and Service Plan Guideline (Guideline).

1.3.2.1 *Water and Sewerage Industry Act*

The Industry Act establishes the economic regulatory framework for the provision of water and sewerage services in Tasmania.

In relation to pricing, the Industry Act provides for:

- an independent regulator (the Tasmanian Economic Regulator) for the sector with clear accountabilities and responsibilities to ensure effective and efficient outcomes for the sector and the protection of customers;
- independent pricing regulation with regulated entities required to submit a proposed Price and Service Plan to the Economic Regulator which outlines the services, revenue requirements and operational requirements of the regulated entity. The Economic Regulator will base its Price Determination on an assessment of the proposed Price and Service Plan submitted by each regulated entity; and
- the Economic Regulator to be guided by legislated pricing principles when making a Price Determination.

The pricing principles specified in section 68 of the Industry Act are as follows:

- a regulated entity is to be given a reasonable opportunity to recover the efficient costs it incurs in:
 - providing a regulated service; and
 - complying with a regulatory obligation; or
 - complying with a requirement to make a regulatory payment under the Industry Act (except where the Industry Act provides otherwise);
- the price is to provide for efficient pricing by:
 - introducing two-part pricing for water services based on the recovery of fixed costs and variable costs by way of a fixed charge and a variable charge (with the variable charge determined by the volume of water used as measured by a water meter);
 - reflecting the costs of servicing particular customers or classes of customers in different locations, regions or schemes;
- the price is to provide effective incentives, with respect to a regulated service to:
 - promote economic efficiency;
 - reduce costs; or
 - otherwise improve productivity;

- the price is to allow a regulated entity to receive a return on assets used in providing the regulated service; and
- the price charged to a particular customer or class of customers is to reflect at least the costs that relate directly to providing the regulated service to that customer or class of customers to the extent that it is commercially and technically reasonable to do so.

Section 68AA of the Industry Act acknowledges that the full application of the pricing principles will require a significant transition period. During this transition period, it is unlikely that all the pricing principles will be achieved and, therefore, reform objectives will need to be prioritised.

Section 68AA enables Price and Service Plans and Price Determinations not to apply some of the pricing principles during the transition period to the extent that the application of those principles would:

- result in a significant impact on customers, or a particular class of customers, due to the rate of change in prices;
- adversely affect the sustainability of a regulated entity in so far as it provides regulated services; or
- adversely affect the ability of a regulated entity to deliver regulated services.

For the purpose of section 68AA, the transition period is defined in the Pricing Regulations as the eight year period from 1 July 2012 to 1 July 2020 inclusive (that is, the expected duration of the first two regulatory periods).

The Industry Act also specifies a range of matters that the Economic Regulator is to take into account, including the need for the Economic Regulator to consider the impact of the rate of change of prices on customers.

1.3.2.2 Water and Sewerage Industry Pricing Regulations

In addition to the pricing principles set out in the Industry Act, the Pricing Regulations contain additional pricing principles in relation to:

- pricing zones (nodal pricing);
- the structure of service introduction charges;
- the calculation of developer charges;
- the treatment of contributed assets; and
- the basis for setting fixed and variable charges (including the removal of free water allowances).

1.3.2.3 *Customer Service Standard Regulations and Customer Service Code*

The Customer Service Regulations stipulate minimum service standards for the water and sewerage industry. As required by the Customer Service Regulations, and to regulate the standards and conditions of supply for water and sewerage services, the Economic Regulator has:

- developed the Code;
- established minimum service standard targets within the Code; and
- required regulated entities to develop customer charters.

Chapter 3 provides more detail about service standards and regulatory obligations.

1.3.2.4 *Price and Service Plan Guideline*

In October 2011, the Economic Regulator issued a Guideline to assist regulated entities in preparing their proposed Price and Service Plans.

The Guideline set out the legislative and regulatory requirements that the regulated entities had to comply with when submitting their proposed Price and Service Plans. The Guideline also set out the key steps and timing for the first Price Determination investigation.

It is unlikely that all the pricing principles under the Industry Act and the Pricing Regulations will be complied with during the first regulatory period. This is primarily due to the need to manage the impact of the rate of price changes on customers as well as ensuring the ongoing financial viability of the regulated entities. On this basis, there is a need to prioritise the price reform objectives for the first Price Determination.

The Guideline set out the following reform priorities for the first regulatory period:

- at a minimum, generating revenue that will ensure the viability of the regulated entity throughout the first regulatory period;
- commencing the transition of revenues up to the lower revenue limit to achieve sustainability;
- achieving two-part pricing for water for all customers from 1 July 2012, including removing free water allowances;
- commencing the transition of customers to a rational price structure consistent with NWI pricing principles;
- not increasing existing cross-subsidies between customer classes and, if possible, reducing cross-subsidies; and
- managing the impact of price changes on customers.

In assessing each regulated entity's proposed Price and Service Plan, the Economic Regulator considered the pricing principles contained in the Industry Act and Pricing Regulations and the requirements contained in the Guideline.

1.3.3 Industry regulators

The Economic Regulator is responsible for implementing and administering the water and sewerage economic regulatory framework, in accordance with the Industry Act and its subordinate legislation. Responsibility for environmental, public health and dam safety regulation of the industry lies with the Director of the Environment Protection Authority, the Director of Public Health and the Secretary of the Department of Primary Industries, Parks, Water and Environment (DPIPWE), who is the Delegate for Dam Safety Regulation, respectively.

Economic regulation of the industry and, more specifically, the Price Determination investigation, focuses on both price and service outcomes. Through the development of the Code and the Guideline, the Economic Regulator has sought to assist the regulated entities in addressing the Industry Act requirements in their proposed Price and Service Plans, namely:

- identifying regulated water and sewerage services, and determining service standards, to be delivered to customers over the first regulatory period;
- determining the revenue required to deliver the regulated services to the agreed standards, based on efficient costs; and
- determining regulated prices (or tariffs) that meet the pricing principles under the Industry Act and Pricing Regulations.

The responsibilities of the independent Tasmanian water and sewerage industry regulators, being the Environment Protection Authority, Director of Public Health and the Delegate for Dam Safety Regulation are described below.

The Guideline required the regulated entities, in conjunction with each Tasmanian industry regulator, to establish regulatory compliance improvement outcomes to be achieved during the first Price Determination investigation. These outcomes will be based on compliance improvement priorities identified by the Tasmanian industry regulators. Capital expenditure programs proposed for the first Price Determination were required to reflect these compliance improvement priorities.

The Price Determinations authorise prices and, therefore, directly or indirectly, revenues, which, among other things, fund agreed capital expenditure programs.

The Price Determinations do not, however, authorise capital expenditure as being sufficient to meet the compliance improvement priorities of the Tasmanian industry regulators. Compliance improvement and compliance enforcement remain the responsibility of the Tasmanian industry regulators, being the Environment Protection Authority, Director of Public Health and the Delegate for Dam Safety Regulation.

1.3.3.1 Director, Environment Protection Authority

The Director of the Environment Protection Authority (EPA) is one member of the Board of the EPA.

The EPA administers and enforces the provisions of the *Environmental Management and Pollution Control Act 1994* (EMPCA).

The functions of the EPA, with respect to the water and sewerage sector, include the assessment and regulation of significant wastewater treatment plants (WWTPs), defined as 'Level 2' WWTPs (greater than 100 kilolitres per day).

The responsibilities of the EPA in regulating Level 2 WWTPs include:

- undertaking environmental impact assessments, in relation to proposals for new WWTPs or significant changes to existing WWTPs;
- developing legally binding environmental conditions for approved WWTPs, which are included as part of the planning permit or as a stand-alone environment protection notice;
- applying the Tasmanian policy framework in relation to water quality management as is relevant for wastewater activities and updating environmental conditions where necessary; and
- ensuring compliance with environmental conditions, largely through collection and evaluation of data on specified discharge limits and the impacts on the receiving environment.

The EPA also offers advice and guidance in relation to a broad range of wastewater issues including pumping stations, wastewater reuse, trade waste and biosolids reuse through the provision of policies and guidelines.

The EPA has released environmental guidelines governing the use of recycled water and biosolids and the recycling of wastewater and biosolids in Tasmania. The guidelines provide a framework for the sustainable reuse and recycling of water, wastewater and biosolids in a manner which is not only practical and safe for agriculture, the environment and the public but consistent with industry standards and best practice environmental management.

1.3.3.2 Director of Public Health

The functions of the Director of Public Health with respect to drinking water are to:

- protect public health with respect to the supply of drinking water;
- establish drinking water quality performance standards;
- monitor water suppliers performance against the standards and requirements prescribed by the *Public Health Act 1997* (and the associated Tasmanian Drinking Water Quality Guidelines 2005), the *Fluoridation Act 1968*, the

Fluoridation (Interim) Regulations 2009 and the Australian Drinking Water Guidelines 2011;

- enforce compliance with the requirements prescribed by the Acts and Guidelines;
- report on the water suppliers compliance with the prescribed standards;
- provide oversight of the fluoridation program in Tasmania through the Fluoridation Committee; and
- develop and implement strategies to promote and improve public health.

1.3.3.3 *Delegate for Dam Safety Regulation*

The Minister for Primary Industries and Water has regulatory oversight of dam safety through administration of the *Water Management Act 1999* and the *Water Management (Safety of Dams) Regulations 2003*. The key functions of the Minister are to:

- develop prescribed standards required for the design, construction, maintenance, surveillance and decommissioning of dams, and ensure compliance with those standards. These standards are largely based on the criteria and guidelines produced by the Australian National Committee on Large Dams (ANCOLD); and
- formulate measures to ensure the safety of dams and, in particular, plans to remove or minimise risks to persons or property or the natural environment arising from a dam safety incident.

The Water Management Branch of the Water and Marine Resources Division of the Department of Primary Industries, Parks, Water and the Environment administers the dam safety legislation. In relation to dam safety, this is primarily implemented through:

- reviewing new dam applications to ensure dams are constructed to contemporary safety standards and in accordance with the statutory requirements; and
- a program ensuring owners of existing dams meet their statutory dam safety responsibilities by monitoring, review and management of dam safety as required by the abovementioned Act and Regulations which incorporate the national dam safety guidelines.

1.3.4 National reforms and legislation

Tasmania is a signatory to the National Water Initiative (NWI) Agreement which provides a blueprint for water reform in Australia. As a signatory to the NWI, the Tasmanian Government has developed and published a plan of how it will implement its commitments to the NWI.

The Implementation Plan (September 2006)¹ sets out the actions that Tasmania has already completed and provides information on the tasks and timelines to complete the remaining commitments, and the context within which these actions are being implemented.

In relation to establishing limits on the revenue that can be earned by a regulated water and sewerage business, the NWI prescribes two revenue limits:

- the upper revenue limit (full cost recovery); and
- the lower revenue limit (sustainability threshold).

Under the NWI, a water and sewerage business should recover revenue at least equal to the lower revenue limit but no greater than the upper revenue limit. Revenue above the upper revenue limit represents monopoly profits.

Consistent with the:

- National Water Commission's statements;
- pricing principles specified in the Industry Act; and
- Pricing Regulations,

all water and sewerage businesses should ultimately be moving towards recovering revenue at the upper revenue limit.

1.4 Scope of the investigation

The Price Determination investigation estimates revenue limits or targets for each regulated entity. However, the maximum prices that each regulated entity can charge, for the supply of regulated water and sewerage services for each year of the first regulatory period has been determined by placing limits on annual price increases.

1.4.1 Regulated and unregulated services

The Price Determinations apply only to prices charged for regulated services.

Regulated services are services or activities requiring a licence under the Industry Act. In general, regulated services include reticulated water and sewerage services, activities that support those services (including the treatment of water and wastewater) and any ancillary activities where a miscellaneous fee is charged.

The Industry Act exempts some activities from economic regulation under the Industry Act. In addition, section 31 of the Industry Act allows the Minister to decide if an activity is to be regulated or unregulated. In terms of the services provided by the regulated entities, the Industry Act, and clause 3 of the

¹ <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/JMUY-6R78TG?open>

Water and Sewerage Industry Declaration Order 2011, specifies the following services to be unregulated services:

- the provision of water for irrigation;
- the provision of reuse water; and
- the provision of stormwater services via a combined sewerage/stormwater system.

1.4.2 Price and service regulation under the Industry Act

The Price Determination applies to both prices and service standards.

1.4.2.1 *Service Standards*

The minimum service standard framework is specified in the Code issued by the Economic Regulator in July 2010.

Regulated entities are required to comply with the Code.

1.4.2.2 *Price regulation*

Under the Industry Act, and in terms of price regulation, the Price Determination investigation usually involves two key steps:

- determining revenue limits based on appropriate services, service standards, regulatory compliance improvement, efficient costs and appropriate returns; and
- approving an appropriate tariff structure that starts the transition towards meeting the requirements of the pricing principles within the Industry Act and the Pricing Regulations but does not generate revenue in excess of annual revenue limits.

For the first Price Determination investigation the Economic Regulator has adopted an approach that reflects:

- the current status of the industry reform process;
- the financial position of each regulated entity; and
- the need to manage the impact of price increases on customers.

The Economic Regulator is also required to assess the proposed Price and Service Plans against a number of principles and objectives outlined in the Industry Act and in the Pricing Regulations.

The Economic Regulator must decide whether to approve the pricing proposals contained in a proposed Price and Service Plan, or require a regulated entity to amend its plan. In approving a Price and Service Plan, the Economic Regulator must be satisfied that the regulated entity will have sufficient revenue to meet its

obligations and deliver agreed standards of customer service, while also taking into account the impact of price increases on customers.

The Economic Regulator is also required to ensure that any reform of tariffs is consistent with the pricing principles under the Industry Act, or represent a transition towards achieving those principles.

1.5 Price Determination investigation

In a Price Determination investigation, the Economic Regulator reviews the regulated entity's proposed costs in providing water and sewerage services to customers together with the prices they intend charging for the services they propose to deliver over a defined period, called the regulatory period. The first regulatory period will run from 1 July 2012 to 30 June 2015.

During a Price Determination investigation, the Economic Regulator independently verifies the information provided by the regulated entities in their proposed Price and Service Plans and gathers additional information to assist in making a Price Determination for the water and sewerage services provided by the regulated entities.

The conduct of the first Price Determination investigation has been significantly constrained by the delay in the creation of the Pricing Regulations. As a result, the time allocated to data collection and analysis and public consultation is less than optimal.

After reviewing the regulated entities Price and Service Plans, the Economic Regulator issued a draft Report summarising its proposed decisions and the reasons for those proposed decisions. The Economic Regulator also issued draft Price Determinations for each regulated entity specifying the method for determining the maximum prices that each entity can charge, for the supply of regulated water and sewerage services for each year of the regulatory period; that is the 2012-13, 2013-14 and 2014-15 financial years.

After consulting on the proposals in its draft Report and draft Price Determinations, the Economic Regulator has released this Report and Price Determinations for regulated water and sewerage services for the regulatory period along with a Statement of Reasons responding to issues raised during consultation on the draft Report.

1.5.1 Conduct of the investigation

As part of the 2011-12 Price Determination investigation, each regulated entity was required to prepare its proposed Price and Service Plan setting out its costs and proposed prices and services.

The regulated entities' proposed Price and Service Plans were submitted to the Economic Regulator on 31 October 2011.

The Economic Regulator reviewed the information contained within each proposed Price and Service Plan including, each regulated entity's proposed:

- service obligations;
- revenue requirements, including operating expenditure and capital expenditure needs;
- demand forecasts; and
- pricing proposals and customer impact analysis.

Where the Economic Regulator considered the information was deficient or did not comply with the Industry Act, the Pricing Regulations, the Code or the Guideline, the Economic Regulator requested the relevant regulated entity to resubmit additional or revised information.

This Report outlines the Economic Regulator's decisions on proposed service levels, revenue requirements, demand forecasts and pricing proposals for each regulated entity, taking into account any additional or revised information submitted through consultation or by the regulated entities.

The Economic Regulator has also made Price Determinations (Appendix 1) for the regulated entities specifying the method for determining the maximum prices that each entity can charge for the supply of regulated water and sewerage services for the first regulatory period.

1.6 Consultation

1.6.1 Consultation to date

The Economic Regulator intended to commence the Price Determination investigation before the end of the 2010-11 financial year to ensure adequate time to consult with industry and the public before the beginning of the first regulatory period on 1 July 2012.

However, delays in finalising the Government's Pricing Regulations caused considerable uncertainty amongst the regulated entities and stakeholders regarding the process and timing of the first Price Determination investigation. In response, the Economic Regulator released its Pricing Approach Paper² for public consultation in March 2011, which outlined the proposed approach and timing for the first Price Determination investigation. The Economic Regulator sought submissions from interested parties on the proposed approach and, once the Pricing Regulations were finalised in September 2011, the Economic Regulator published a draft Price and Service Plan Guideline³ and complementary Consultation Paper.⁴ The draft

² Tasmanian Water and Sewerage Industry 2011-12 Pricing Investigation Principles and Approach Consultation Paper, March 2011

³ Tasmanian Water and Sewerage Industry 2011-12 Price Determination Investigation Draft Price and Service Plan Guideline, September 2011

Guideline was prepared to assist each regulated entity to prepare its proposed Price and Service Plan whilst the Consultation Paper highlighted the issues addressed in the draft Guideline and sought stakeholder feedback on the draft Guideline.

The Economic Regulator considered the comments made in submissions on the draft Guideline and released the final version of the Guideline in October 2011. The Economic Regulator also released a Statement of Reasons discussing issues raised in submissions on the draft Guideline and the Economic Regulator’s responses to those issues.

The regulated entities were then required to prepare a proposed Price and Service Plan in accordance with the Guideline and submit it to the Economic Regulator by 31 October 2011.

The Economic Regulator released its draft Report and draft Price Determinations in March 2012 and invited submissions from interested stakeholders. Following consideration of submissions this Report was prepared and the attached Price Determinations made. The Economic Regulator also released a Statement of Reasons discussing issues raised in submissions on the draft Report and draft Price Determinations.

1.6.2 Key steps and timelines

Table 1.1 Timetable for the Price Determination investigation

Action	Due date
Draft Report and draft Price Determinations released for public consultation	22 March 2012
Consultation on draft Report and draft Price Determinations closes	16 April 2012
Final Report and Price Determinations published by Economic Regulator	30 May 2012
Making of Price Determinations gazetted	30 May 2012
Regulated entities submit revised Price and Service Plans	15 June 2012
Economic Regulator approves Price and Service Plans	30 June 2012
First Price Determinations commence	1 July 2012

⁴ Tasmanian Water and Sewerage Industry 2011-12 Price Determination Investigation Consultation Paper on the Draft Price and Service Plan Guideline, September 2011

2 APPROACH TO FIRST PRICE DETERMINATION

This chapter provides an overview of the approach adopted by the Economic Regulator for the first independent Price Determination investigation for the Tasmanian water and sewerage industry.

The chapter also provides background on key regulatory issues and explains how they were managed during the first Price Determination investigation.

2.1 Approach to revenue and price regulation

In April 1995 the Council of Australian Governments (CoAG) agreed on a number of competition policy reforms. The Tasmanian Government was a signatory to these reforms. These National Competition Policy reforms centred on:

- the review and reform of regulation that restricted competition;
- the introduction of competitive neutrality (where government services are provided in competition to the private sector);
- the restructure of public monopoly businesses; and
- providing rights of access to infrastructure (such as train lines, gas pipelines etc) to promote greater competitive pressure so encouraging greater efficiency.

CoAG recognised that effective competition may not always be achievable. The competition policy reforms provided for government regulation of pricing as an appropriate action where effective competition was not achievable. In such circumstances, it has become common practice for monopoly, or near monopoly, providers of goods and services to be subject to revenue and/or price regulation, particularly where the goods and services provided are considered to be essential services such as electricity and water.

In the absence of effective competition, regulation of such industries is usually undertaken to ensure that consumers do not pay more than the efficient cost for the provision of the goods or service, and to ensure that services meet prescribed standards.

Revenue regulation generally involves determining the revenue required (referred to as the “revenue allowance”) for the regulated business to meet its costs to produce the goods and services to prescribed standards and deliver them to customers. Prices are then set based on the revenue allowance, customer numbers and the volume of goods and services to be delivered over a defined period.

Under price regulation, the price the entity can charge for each regulated service may be set by reference to:

- the maximum revenue allowance the entity can earn;
- maximum prices; or
- maximum rates of change in prices.

2.1.1 Building block approach

The use of the building block approach is a relatively standard practice in the regulation of monopoly network business. The building block approach involves determining the revenue required to meet operating and maintenance costs, depreciation (return of capital) and provide the business with a commercial risk adjusted return on its capital investment (return on capital).

The Economic Regulator has adopted the building block approach to determine a revenue allowance for each regulated entity for the first regulatory period. This involved determining the following for each regulated entity:

- the value of the regulated asset base (RAB) (the value of the assets used to provide regulated services);
- depreciation (return of capital invested in assets over the economic life of the assets); and
- operating and maintenance expenditure necessary to provide the regulated services.

In addition, a single weighted average cost of capital (WACC) (the cost of debt and equity that together make up the total amount of capital invested in the regulated business) was derived which is applicable to all three regulated entities.

In determining the revenue allowances for the regulated entities, the Economic Regulator has determined three revenue limits. This is discussed further in section 2.2.

2.1.2 Approach for the first Price Determination

The regulatory approach adopted for the first Price Determination investigation reflects the circumstances currently facing the industry. For the first regulatory period, the two key issues are:

- the regulated entities' current revenues are substantially below full cost recovery (also referred to as "revenue under-recovery"); and
- time constraints.

The requirement under section 15(d) of the Industry Act to take into account the impact of price changes on customers, combined with the current level of revenue under-recovery by each regulated entity, means that movements in annual prices

will be regulated; that is, prices will be determined by applying a limit on annual price movements. As a consequence, a regulated entity's annual revenue will be subject to monitoring rather than direct revenue regulation during the first regulatory period.

Caps (price constraints) will be placed on annual price movements and these price constraints, together with the volume of water used, will determine the revenue received by each regulated entity in each financial year of the first regulatory period. To make it clearer for customers, price constraints will be expressed in the Price Determination in nominal terms (i.e. in actual dollar terms, rather than needing to be adjusted for inflation over the period).

Delays in finalising the Government's Pricing Regulations meant that there was insufficient time for independent reviews of the regulated entities asset values and costs as would typically occur in a Price Determination investigation. However, the inability to undertake these independent reviews was not critical, as it is price constraints, not asset values and costs, which have determined prices for the first regulatory period as explained above.

2.2 Revenue limits

In determining the revenue allowances for each of the regulated entities, the Economic Regulator has established three annual revenue limits – upper, lower and statutory.

In establishing the revenue limits for each regulated entity, the Economic Regulator has adopted an approach that is consistent with:

- the pricing principles¹ articulated in the NWI;
- the pricing principles listed in section 68 of the Industry Act; and
- the additional pricing principles expressed in the Pricing Regulations.

The three revenue limits are outlined below and are addressed in more detail in Chapter 4.

2.2.1 Upper and lower revenue limits

The NWI prescribes two revenue limits:

- the upper revenue limit (full cost recovery); and
- the lower revenue limit (sustainability threshold).

Under the NWI, a water and sewerage business should recover revenue at least equal to the lower revenue limit but no greater than the upper revenue limit as revenue above the upper revenue limit represents monopoly profits.

¹ Natural Resource Management Ministerial Council, 23 April 2010:
<http://www.environment.gov.au/water/policy-programs/urban-reform/nwi-pricing-principles.html>

Consistent with the National Water Commission's statements, and the pricing principles specified in the Industry Act and the Pricing Regulations, all water and sewerage businesses should ultimately be moving towards recovering revenue at the upper revenue limit.

The upper revenue limit has been determined using the building block approach and reflects full cost recovery revenue for the regulated business. That is, it is the level of revenue required by the regulated business to meet operating and maintenance costs, fund depreciation (return of capital) and provide the business with a commercial risk adjusted return on its capital investment (return on capital).

The lower revenue limit is the minimum amount a regulated business needs to recover to ensure that it covers its costs of operations and represents the minimum revenue required to achieve sustainability. Under the lower revenue limit calculation, the cost of operations includes operating and maintenance expenditure, debt servicing costs and an allowance for the cost of asset refurbishment, replacement and future augmentation (the asset renewal annuity or ARA). The lower revenue limit, therefore, is not sufficient to recover the cost of capital.

2.2.2 Statutory revenue limit

The Industry Act provides for an additional revenue limit to those prescribed under the NWI, the statutory revenue limit. The statutory revenue limit is the amount of revenue required to achieve the level of cost recovery stipulated in the Industry Act. The statutory revenue limit is calculated by applying the two separate weighted average costs of capital (WACCs) set out in section 68(1A) of the Industry Act; that is, one WACC for existing assets and another WACC for new assets.

For existing assets, the WACC incorporates a commercial rate of return on the debt component and a legislated pre-tax rate of return of three percent on the equity component.

For new assets, the WACC incorporates a commercial rate of return on both debt and equity.

The legislative requirement for two WACCs necessitates the creation of two separate RABs. The RAB for existing assets will gradually decline over time as depreciation and disposals reduce the value of existing assets. The RAB for new assets will increase in line with investment in capital projects.

2.2.3 Treatment of assets used to provide unregulated services

Revenue limits reflect costs associated with providing regulated services and an appropriate return on the regulated assets used to provide those services.

This means that the costs of, and returns on, assets used to provide unregulated services (that is, unregulated assets) must be recovered from the persons utilising those services rather than from the regulated customer base.

In calculating each regulated entities RAB², the value of unregulated assets and the costs associated with unregulated services, such as providing water for irrigation or providing stormwater services via a combined sewerage/stormwater system, must be excluded using an optimisation approach. Under the optimisation approach, the value of assets used to provide services to both unregulated and regulated customers is adjusted to determine the value of the assets required to service regulated customers only. This optimised asset value is then included in the RAB.

Where reuse water is used for irrigation in accordance with existing contracts, a proportion of reuse assets must be excluded from the RAB to cover the cost of the reuse system based on the following ratio:

$$\frac{\text{Revenue received from reuse customers}}{\text{Total cost of providing reuse assets}}$$

For unregulated assets associated with new reuse schemes, or renegotiated reuse contracts, a proportion of reuse assets should be excluded from the RAB using a ratio that takes into account the average expected returns from reuse water irrigation customers.

2.2.4 Regulatory accounting

The Economic Regulator intends issuing a Regulatory Accounting Ring-fencing Guideline in accordance with section 64(2) of the Industry Act to provide guidance to the regulated entities on meeting the detailed accounting and information requirements necessary to enable the Economic Regulator to undertake its responsibilities under the Industry Act.

Given the time constraints applying to the first Price Determination investigation, the Economic Regulator does not intend issuing a Regulatory Accounting Ring-fencing Guideline until after the first regulatory period commences.

In the meantime, regulated entities should ensure that asset and cost data is able to:

- separately identify regulated and non-regulated components;
- be reconciled to information contained in the regulated entity's financial statements; and
- document the basis for allocating assets and costs between unregulated services and regulated services.

2.3 Assessing asset values, costs and capital expenditure

As explained above, the form of regulation adopted for this first Price Determination involves direct regulation of the rate of change to annual prices. Therefore, annual revenue allowances will only be subject to monitoring for the first regulatory period.

² As outlined in the Price and Service Plan Guideline, the opening RAB is to be based on the depreciated optimised replacement cost (DORC) of regulated assets as at 1 July 2009 (the date each regulated entity commenced operations).

However, in the future, these allowances are likely to be subject to regulation as the current level of revenue under-recovery is addressed over time. In future Price Determination investigations it will be important to ensure that annual revenue allowances are based on optimised asset values and efficient costs. This would usually be achieved by the Economic Regulator engaging expert third party advisers to review asset values and cost data submitted by regulated entities.

As noted in section 2.1.2, time did not permit the conduct of third party independent assessments for this Price Determination investigation, nor is there any value engaging a third party to undertake those assessments given that revenues for the first regulatory period will be determined by the application of limits on annual price movements. For the first Price Determination investigation, the Economic Regulator has used independently audited asset values as at 1 July 2009 as a basis for determining the respective regulatory asset bases.

The regulated entities have also provided, as part of their proposed Price and Service Plans, their proposed capital expenditure (capex), operating cost and depreciation expense data to determine annual revenue limits, reflecting the amount to be invested in new regulated assets (split between water and sewerage services). In assessing the proposed capex programs, the Economic Regulator has consulted with other Tasmanian water and sewerage industry regulators to ensure that the proposed capex programs will achieve the expected outcomes in relation to regulatory compliance improvement over the period.

The Economic Regulator did not engage an independent third party to assess operating costs and asset values for the first Price Determination investigation, but has undertaken an in-house benchmarking analysis comparing Tasmanian regulated entities' operating costs with the operating costs of similar water and sewerage providers in other Australian jurisdictions, where such data is available.

Whilst this benchmarking exercise will not directly impact on prices for the first regulatory period, the outcomes may result in the future rebasing of assets and/or costs that underpin the calculation of annual revenue allowances. The data from this benchmarking analysis will provide base data for future comparisons as well as incentives for the regulated entities to address any identified inefficiencies.

The Economic Regulator expects to undertake an independent review of operating costs and asset values as part of the second Price Determination investigation.

2.4 Assessing proposed Price and Service Plans

In assessing each regulated entity's proposed Price and Service Plan, the Economic Regulator has looked at:

- whether each proposed Price and Service Plan is consistent with, or working towards, the pricing principles set out in the Industry Act and Pricing Regulations;
- how each proposed Price and Service Plan addresses the price reform priorities established by the Economic Regulator; and

- the customer impacts flowing from the proposed Price and Service Plan.

The pricing principles and reform priorities are listed in section 1.3.2.

Section 15 of the Industry Act also requires the Economic Regulator to consider the impact on customers of the rate of change in prices.

Consistent with the “propose and respond” nature of the regulatory framework, the Economic Regulator considered that the regulated entities were best placed to develop models to support pricing proposals and assess customer impacts as they hold detailed customer and usage information.

The regulated entities were required, therefore, to propose the structure and the amount of constraints on annual price changes in their proposed Price and Service Plan. Each regulated entity was required also to propose preferred and alternative price constraints.

For a regulated entity’s preferred price constraints, its proposed Price and Service Plan had to specify the estimated total regulated revenue and Net Profit After Tax for each financial year of the first regulatory period.

In relation to customer impacts, each regulated entity was required to provide the following information for each financial year of the first regulatory period:

- the percentage of customers whose tariffs are expected to be above the target tariffs (target tariffs represent a single tariff structure to apply in each region rather than the current structure of different tariffs in different areas. The target tariffs will, over the regulatory period, increase towards the level required to achieve full cost recovery revenue);
- the percentage of customers whose tariffs are on the target tariffs (that is, their tariffs will increase at the target tariff rate proposed by the regulated entity);
- the percentage of customers whose tariffs are below the target tariffs by an amount less than the preferred price constraint (that is, these customers will reach the target tariff during that year); and
- the percentage of customers whose tariffs are below the target tariffs by an amount greater than the preferred price constraint but whose annual tariff increase will be capped at the preferred price constraint limit (that is, those customers who will not reach the target tariff during that year).

In addition to “preferred” price constraints, each regulated entity was also required to provide the above information for higher and lower price constraint scenarios to allow for comparison with the preferred scenario. The purpose of these alternative scenarios was to provide a framework for stakeholders and the Economic Regulator to assess the impact of the different price constraint scenarios on Net Profit After Tax and the rate at which customers are expected to move to the target tariff.

The structure and amount of the preferred price constraints developed by each regulated entity was determined by assessing the ability to deliver price reform in a manner that manages the complex and competing objectives facing the industry.

Each regulated entity has had to balance the impact of the rate of change of prices on customers and the need to move to efficient pricing in the long term in order to meet future investment and regulatory compliance requirements.

2.5 Adjustments to the Price Determination within the first regulatory period

The need for certainty is considered important as the industry moves through a reform transition period. To maximise certainty for regulated entities, owner councils, stakeholders and customers, the Pricing Regulations permit price adjustments only if there has been a material change in the costs incurred by a regulated entity as a result of complying with one or more of the following events, which may occur after the Price Determination has been made:

- new or amended legislative requirements; or
- a tax event (as defined in the Pricing Regulations).

Prices will not be reviewed annually; rather, each regulated entity will be responsible for proposing any adjustments in line with the terms of the Price Determination and the requirements of the Pricing Regulations.

All other variations between forecasts and actual outcomes over the first regulatory period will, therefore, need to be managed by the regulated entities, including any differences between forecast and actual CPI.

The second Price Determination investigation will review any differences between forecast and actual outcomes that occurred during the first regulatory period and recommend appropriate actions to account for those variations.

3 SERVICE STANDARDS AND REGULATORY OBLIGATIONS

This chapter provides an overview of the customer service standards and regulatory compliance obligations upon the Tasmanian water and sewerage regulated entities.

This chapter outlines:

- a regulated entity's obligations in relation to achieving minimum and transitional customer service standards;
- the Economic Regulator's assessment of each regulated entity's proposed transitional service standards;
- the Economic Regulator's subsequent approval of each regulated entity's revised transitional service standards, as submitted during consultation on the draft Report; and
- the regulatory compliance improvement programs put forward by each regulated entity, and the Tasmanian water and sewerage industry regulators' assessment of those programs.

3.1 Implications of service standards and regulatory obligations

One of the key drivers of the Tasmanian Government's reform of the water and sewerage industry was the need to improve levels of customer service and compliance with regulatory obligations.

As part of the Government's reform process, comprehensive service standards and regulatory frameworks were established resulting in the regulated entities devoting more resources to compliance improvement.

However, the pre-reform legacy of revenue under-recovery, and under investment, by local councils has meant that in order to improve service standards and regulatory compliance, price increases are inevitable.

In reviewing a regulated entity's proposed Price and Service Plan, the Economic Regulator must be satisfied that the regulated entity will have sufficient revenue to meet its obligations and deliver agreed standards of customer service and regulatory compliance, while also taking into account the impact of price rises on customers.

Sections 3.2 and 3.3 of this Chapter outline:

- the customer service standards framework applying to the regulated entities;
- each regulated entity's proposed transitional service standards, submitted as part of their proposed Price and Service Plans;

- each regulated entity’s revised transitional service standards, provided during the consultation period; and
- the Economic Regulator’s decisions on these proposals.

Section 3.4 outlines the broader regulatory compliance improvement programs put forward by each regulated entity in relation to environmental, public health and dam safety regulation and the assessment of these programs by the Tasmanian water and sewerage industry regulators.

3.2 Customer service standards

The Industry Act requires the Regulator to develop and administer the Code. The Industry Act also requires the Regulator to monitor and report on each regulated entity’s compliance with the Code.

The Code reflects the minimum customer service requirements specified in the Customer Service Standard Regulations.

Prior to the commencement of the Code on 1 July 2010, each of the regulated entities prepared Interim Standards of Customer Service to outline the commitments, responsibilities and standards of service that they would provide to their water and sewerage customers. These standards set out the obligations of the regulated entities to their customers as required under clause 10 of the initial Water and Sewerage Industry Interim Price Orders.

The Interim Standards of Customer Service commenced on 1 July 2009 and were in place until the Code came into effect on 1 July 2010.

3.2.1 Regulation of customer service standards

The Economic Regulator’s approach to regulating the standards and conditions of supply for water and sewerage services has been to:

- develop the Code;
- establish minimum service standard targets in the Code;
- require regulated entities to develop customer charters;
- require regulated entities to propose transitional customer service standards as part of their proposed Price and Service Plans which establish a transition path to achieving the minimum service standard targets specified in the Code; and
- establish a performance reporting framework that, amongst other things, monitors performance against approved transitional service standards and minimum service standard targets.

For the first regulatory period each regulated entity's performance will be monitored against approved transitional service standards with performance against these standards detailed in the Economic Regulator's annual State of the Industry Report.

3.2.2 Customer Service Code

The Code specifies standards and conditions of service and supply with which a regulated entity must comply in providing regulated services to customers. It applies in respect of a regulated entity's water supply services intended for drinking water, reticulated drinking water that is non-potable water, and sewerage services and includes:

- minimum service standards;
- connection and service provision;
- schedules of, and variations to, fees;
- complaints, disputes and customer enquiries;
- billing periods and bill options;
- payment options;
- collection of owed monies;
- restrictions and disconnections;
- actions for non-payment;
- quality of services;
- reliability of services;
- reconnection;
- works and maintenance;
- guaranteed service levels; and
- customer charters.

From 1 July 2012, each regulated entity will be expected to comply with all the requirements of the Code. However, transitional arrangements have been put in place in relation to the minimum service standard targets.

The Code includes a number of minimum service standards relating to quality of service and reliability of service that a regulated entity is to use as targets for transitioning service levels to the minimum service standard targets over time. The specified minimum service standards are outlined at Schedule 1 of the Code and are reproduced in Table 3.1, Table 3.2 and Table 3.3 of this chapter, along with each regulated entity's revised transitional service standards.

The minimum service standards specified in the Code are based on those adopted for similar businesses operating in a mature and efficient regulatory environment elsewhere in Australia.

The minimum service standards for quality of services deal with a regulated entity's obligation to:

- deliver product and service quality;
- maintain flow rates to customers;
- test flow rates and water quality; and
- rectify any deficiencies in service quality.

The minimum service standards for service reliability deal with a regulated entity's obligation to:

- provide reliable services;
- provide information about, and response to, planned and unplanned interruptions;
- develop and implement policies, practices and procedures to deal with bursts, leaks, blockages and spills; and
- meet the requirements of special needs customers.

3.2.3 Minimum and transitional customer service standards

The Code commenced on 1 July 2010, at which time each of the regulated entities considered that the most of the Code requirements were achievable. Transitional arrangements were put in place for the minimum performance standard targets specified in the Code.

In developing the Code, the Economic Regulator acknowledged that a regulated entity may not be able to meet all of the minimum service standards stipulated in the Code in the short term. The Guideline therefore requires each regulated entity to meet the minimum service standards prior to the end of the second regulatory period i.e. 30 June 2020.

The Guideline also requires that a regulated entity's proposed Price and Service Plan include proposed transitional service standards for each financial year of the first regulatory period for the Economic Regulator to consider. A regulated entity's transitional service standards should demonstrate how it intends to transition performance towards the minimum service standards in the Code.

Clause 10.1.1 of the Code specifies that:

In addition to complying with applicable requirements of health regulation and environmental regulation, a regulated entity must provide a regulated service in accordance with any commitments in the regulated entity's approved transitional service standards.

That is, in the context of the Code, each regulated entity is obliged to meet its proposed transitional service standards once they are approved by the Economic Regulator.

The transitional service standards apply formally from the commencement of the first regulatory period i.e. 1 July 2012.

3.2.4 Assessing transitional service standards

As part of the first Price Determination investigation, the Economic Regulator has assessed whether the transitional service standards:

- are consistent with the minimum service standards within the Code (from a terminology and definition perspective);
- set transitional values that will result in the minimum service standard targets being met prior to the end of the second regulatory period;
- are consistent with available information on actual performance;
- reflect the impact of proposed expenditure programs; and
- reflect customer preferences (especially any identified priorities for service standard improvement).

As noted in its draft Report, the Regulator accepted the transitional customer service standards, proposed by the regulated entities as part of their proposed Price and Service Plans, subject to comments received during the consultation period.

In the submissions received on the draft Report, each of the regulated entities proposed revised transitional customer service standards, acknowledging that some of the standards included in their proposed Price and Service Plans may have been overly optimistic.

The Economic Regulator's assessment of each regulated entity's proposed transitional service standards and their proposed revised transitional service standards is outlined in section 3.3.

The Economic Regulator will monitor the regulated entities' performance against their transitional service standards as part of the performance monitoring and reporting regime and include the results in the Economic Regulator's annual State of the Industry Report.

The customer service standards framework recognises that it will take time for the regulated entities to achieve levels of service that are comparable with similar businesses on the mainland.

The framework also provides certainty to customers in that the transitional service standards will be published and performance against these will be reported by the Economic Regulator.

3.2.5 Future regulation of service standards

The current minimum service standards stipulated in the Code apply to each regulated entity and across all regions.

During the 2012-13 financial year the Economic Regulator will review the Code, including minimum service standards, in light of more detailed cost and service level data that is expected to be available at that time. The revised minimum service standards will form the basis of the revised customer service standards during the second regulatory period. The objective of revising the minimum service standards is to move to differential service standards during that period to reflect different costs of delivering the regulated services to different geographical areas.

The Economic Regulator envisages future Price Determinations taking into account community expectations and preferences in relation to regulated prices and service standards in setting minimum service standards. The Code will be amended as required to reflect the new minimum service standards.

3.2.6 Reduction in water pressure

The Economic Regulator is concerned about the risks that may arise if a regulated entity reduces the water pressure to properties that have historically received higher water pressure. The Economic Regulator understands that a regulated entity may choose to reduce the water pressure for a number of reasons including, for example, to reduce the incidence of burst water mains.

However, the Economic Regulator understands that reduced water pressure could compromise fire protection systems in buildings, particularly in multi-storey buildings. It appears that neither the regulatory framework nor the proposed Price and Service Plans address this issue. This issue is discussed further in Chapter 5.

3.3 Approved transitional service standards

This section discusses the Economic Regulator's assessment of, and decisions with respect to, each regulated entities' transitional service standards.

3.3.1 Compliance with Customer Service Code

Since the Code commenced on 1 July 2010, the regulated entities have undertaken regular reviews of their compliance with Code obligations. The regulated entities subsequently informed the Economic Regulator of non-compliance issues and provided estimates of when they would meet the Code requirements.

At present, all three regulated entities continue to be non-compliant with some aspects of the billing requirements of the Code. These issues are expected to be resolved prior to the beginning of the first regulatory period i.e. 1 July 2012.

Apart from achieving the minimum service standard targets, each regulated entity is expected to comply with all of the requirements of the Code from 1 July 2012. A regulated entity is not required to meet the minimum service standards until the end of the second regulatory period. In the interim, a regulated entity is required to achieve the transitional service standards included in its Price and Service Plan as approved by the Economic Regulator.

Where a regulated entity does not meet the Code requirements, including approved transitional service standards, their performance will be deemed to be non-compliant with the Code and they will be subject to compliance enforcement in accordance with the Economic Regulator's Compliance Enforcement Policy.

The policy explains the process the Regulator intends to follow in response to information it receives, or has obtained, regarding compliance contraventions prior to taking enforcement action. The policy also sets out the enforcement action the Economic Regulator will take in dealing with non-compliance.

3.3.2 Approved transitional service standards

The Economic Regulator stipulates minimum service standards for 22 service measures in the Code which the regulated entities are expected to meet by the end of the second regulatory period (i.e. 30 June 2020). Each regulated entity listed their proposed transitional service standards for each service measure for each year of the regulatory period in their proposed Price and Service Plans.

As noted under section 3.2.4, the Economic Regulator subsequently accepted, in its draft Report, these transitional customer service standards, subject to comments provided during the consultation period. The Economic Regulator did, however, note that a number of the standards proposed appeared ambitious in terms of whether they could be achieved. The Economic Regulator also recommended the amendment of Cradle Mountain Water's proposed Price and Service Plan to remove the inference that it could reassess its transitional service standards during the first regulatory period.

In their submissions on the draft Report, each of the regulated entities proposed revised transitional customer service standards, acknowledging that some of the standards included in their proposed Price and Service Plans may have been overly optimistic.

Each regulated entity's revised transitional service standards are provided in the following tables.

3.3.2.1 *Ben Lomond Water*

Ben Lomond Water, in its submission on the draft Report, proposed widespread changes to the transitional customer service standards it initially proposed. The

changes reflected an increase in the knowledge of current performance, accepting that this is still based on data with reliability issues and the fact that the initial standards proposed may have been overly optimistic in terms of their achievability.

Ben Lomond Water's revised transitional service standards are listed in Table 3.1.

Table 3.1 Ben Lomond Water – revised transitional service standards

Service standards	Target minimum service standard	2012-13	2013-14	2014-15	After 2014-15
Water					
Unplanned water supply interruptions (per 100km of water main)	32	40	39	38	37
Average time taken to attend bursts and leaks – Priority 1 (minutes)	30	45	60	55	50
Average time taken to attend bursts and leaks – Priority 2 (minutes)	120	103	120	120	120
Average time taken to attend bursts and leaks – Priority 3 (minutes)	1 440	91	1 440	1 440	1 440
Average frequency of unplanned water supply interruptions (number)	0.10	0.21	0.25	0.23	0.20
Average frequency of planned water supply interruptions (number)	0.10	0.07	0.25	0.20	0.15
Average unplanned customer minutes off water supply (minutes)	20	14	20	20	20
Average planned customer minutes off water supply (minutes)	15	12	30	30	25
Average duration of unplanned water supply interruption (minutes)	100	N/A	180	170	160
Average duration of planned water supply interruption (minutes)	180	N/A	300	280	260
Unplanned water supply interruptions restored within five hours (per cent)	98	N/A	75	80	85
Planned water supply interruptions restored within five hours (per cent)	95	72	75	78	82
Number of customers receiving more than five unplanned water supply interruptions in a financial year (number)	0	N/A	250	250	250
Unaccounted for water (per cent)	10	N/A	25	25	20
Sewerage					
Sewer breaks and chokes (per 100km of sewer main)	28	63.8	60	55	50
Average time to attend sewer spills, breaks and chokes (minutes)	41	N/A	70	65	60
Average sewerage service interruption (minutes)	150	N/A	240	230	220
Sewerage spills contained within five hours (per cent)	99	N/A	90	90	92
Customers receiving more than three sewerage service interruptions per year	0	N/A	250	250	250

Service standards	Target minimum service standard	2012-13	2013-14	2014-15	After 2014-15
Customers					
Total water and sewerage complaints (per 1 000 properties)	9	N/A	9	9	9
Water and sewerage complaints to Ombudsman (per 1 000 customers)	0.50	N/A	0.50	0.50	0.50
Percentage of calls answered by an operator within 30 seconds	90	N/A	70	75	80

In relation to the revised transitional customer service standards proposed by Ben Lomond Water in its submission on the draft Report, it is considered that the majority are appropriate as they meet the basic requirements of establishing a service improvement path that is likely to see the minimum service standards targets in the Code met by the end of the second regulatory period.

The two exceptions are shaded in Table 3.1. For both these measures the transitional standards proposed do not show any service improvement over the first regulatory period. Ben Lomond Water noted that for these measures it is likely to take time to see improvement due to the legacy of infrastructure deficiency or the need to obtain sufficient data. Ben Lomond Water expects performance against these service standards to improve significantly during the second regulatory period.

The Economic Regulator has decided to approve Ben Lomond Water’s revised transitional service standards.

3.3.2.2 *Cradle Mountain Water*

Cradle Mountain Water also proposed, in its submission on the draft Report, widespread changes to its initially proposed transitional customer service standards. The changes reflected an increase in the knowledge of current performance, accepting that this is still based on data with reliability issues and the fact that the initial standards proposed may have been overly optimistic in terms of their achievability.

Cradle Mountain Water’s revised transitional service standards are listed in Table 3.2.

Table 3.2 Cradle Mountain Water – revised transitional service standards

Service standard	Target minimum service standard	Current performance	2012-13	2013-14	2014-15
Water					
Unplanned water supply interruptions (per 100km of water main)	32	70	70	68	65
Average time taken to attend bursts and leaks – Priority 1 (minutes)	30	49	49	45	30
Average time taken to attend bursts and leaks – Priority 2 (minutes)	120	N/A	120	120	120

Service standard	Target minimum service standard	Current performance	2012-13	2013-14	2014-15
Water					
Average time taken to attend bursts and leaks – Priority 3 (minutes)	1 440	N/A	1 440	1 440	1 440
Average frequency of unplanned water supply interruptions (number)	0.10	0.142	0.25	0.23	0.20
Average frequency of planned water supply interruptions (number)	0.10	0.07	0.25	0.20	0.15
Average unplanned customer minutes off water supply (minutes)	20	20.1	25	25	20
Average planned customer minutes off water supply (minutes)	15	25.7	30	30	25
Average duration of unplanned water supply interruption (minutes)	100	120	180	170	160
Average duration of planned water supply interruption (minutes)	180	180	200	200	180
Unplanned water supply interruptions restored within five hours (per cent)	98	96	95	95	96
Planned water supply interruptions restored within five hours (per cent)	95	94	90	91	93
Number of customers receiving more than five unplanned water supply interruptions in a financial year (number)	0	N/A	250	250	250
Unaccounted for water (per cent)	10	N/A	25	25	20
Sewerage					
Sewer breaks and chokes (per 100km of sewer main)	28	50	60	55	50
Average time to attend sewer spills, breaks and chokes (minutes)	41	48	70	65	60
Average sewerage service interruption (minutes)	150	165	240	230	200
Sewerage spills contained within five hours (per cent)	99	99	97	97	98
Customers receiving more than three sewerage service interruptions per year	0	N/A	250	250	250
Customers					
Total water and sewerage complaints (per 1 000 properties)	9	0.59	9	9	9
Water and sewerage complaints to Ombudsman (per 1 000 customers)	0.50	0	0.50	0.50	0.50
Percentage of calls answered by an operator within 30 seconds	90	60	60	70	80

In relation to the revised transitional customer service standards proposed by Cradle Mountain Water in its submission on the draft Report, it is considered that the majority are appropriate as they meet the basic requirements of establishing a service improvement path that is likely to see the minimum service standards targets in the Code met by the end of the second regulatory period.

The two exceptions are shaded in Table 3.2 (these are the same measures that are highlighted for Ben Lomond Water). For both these measures the transitional standards proposed do not show any service improvement over the first regulatory period. However, for similar reasons as raised by Southern Water, it is expected that these service standards will improve significantly in the second regulatory period.

In addition to the above matters, it is noted that Cradle Mountain Water undertook to amend its Price and Service Plan to remove any inference that it can reassess its transitional customer service standards during the first regulatory period.

The Economic Regulator requires Cradle Mountain Water to amend its proposed Price and Service Plan to remove the inference that it can reassess the transitional service standards during the first regulatory period.

Apart from above requirement, the Economic Regulator has decided to approve Cradle Mountain Water’s revised transitional service standards.

3.3.2.3 Southern Water

In its submission on the draft Report, Southern Water proposed widespread changes to its initially proposed transitional customer service standards. The changes reflected an increase in the knowledge of current performance, accepting that this is still based on data with reliability issues and the fact that the initial standards proposed may have been overly optimistic in terms of their achievability.

Southern Water’s revised transitional service standards are listed in Table 3.3.

Table 3.3 Southern Water – revised transitional service standards

Service standard	Target minimum service standard	Current performance	2012-13	2013-14	2014-15
Water					
Unplanned water supply interruptions (per 100km of water main)	32	40	40	39	38
Average time taken to attend bursts and leaks – Priority 1 (minutes) ¹	30	35	45	44	43
Average time taken to attend bursts and leaks – Priority 2 (minutes) ²	120	N/A	120	120	120
Average time taken to attend bursts and leaks – Priority 3 (minutes) ³	1 440	N/A	4 320	4 320	4 320
Average frequency of unplanned water supply interruptions (number)	0.10	N/A	0.25	0.25	0.25
Average frequency of planned water supply interruptions (number)	0.10	N/A	0.25	0.20	0.15
Average unplanned customer minutes off water supply (minutes)	20	N/A	30	30	30
Average planned customer minutes off water supply (minutes)	15	N/A	30	30	30
Average duration of unplanned water supply interruption (minutes)	100	N/A	180	170	160

Service standard	Target minimum service standard	Current performance	2012-13	2013-14	2014-15
Average duration of planned water supply interruption (minutes)	180	302	300	280	260
Unplanned water supply interruptions restored within five hours (per cent)	98	95	75	80	85
Planned water supply interruptions restored within five hours (per cent)	95	41	50	55	60
Number of customers receiving more than five unplanned water supply interruptions in a financial year (number)	0	N/A	250	250	250
Unaccounted for water (per cent)	10	N/A	25	24	23
Sewerage					
Sewer breaks and chokes (per 100km of sewer main)	28	65	63	61	59
Average time to attend sewer spills, breaks and chokes (minutes)	41	78	75	65	60
Average sewerage service interruption (minutes)	150	N/A	180	180	180
Sewerage spills contained within five hours (per cent)	99	91	92	93	94
Customers receiving more than three sewerage service interruptions per year	0	N/A	250	250	250
Customers					
Total water and sewerage complaints (per 1 000 properties)	9	8.28	9	9	9
Water and sewerage complaints to Ombudsman (per 1 000 customers)	0.50	0.22	0.50	0.50	0.50
Percentage of calls answered by an operator within 30 seconds	90	67	75	80	85

Notes:

¹ Priority 1 is a burst or leak that causes, or has the potential to cause, substantial damage or harm to customers, water quality, flow rate, property or environment.

² Priority 2 is a burst or leak that causes, or has the potential to cause, minor damage or harm to customers, water quality, flow rate, property or environment.

³ Priority 3 is a burst or leak that causes no discernable impact on customers, property or the environment.

N/A - data is not available

In relation to the revised transitional customer service standards proposed by Southern Water in its submission on the draft Report, and as shown in Table 3.3, it is considered that the majority are appropriate as they meet the basic requirements of establishing a service improvement path that is likely to see the minimum service standards targets in the Code met by the end of the second regulatory period.

Five measures have been highlighted in Table 3.3 as they either do not show any compliance improvement in the first regulatory period and/or appear unlikely to meet the minimum service standard target by the end of the second regulatory period. Southern Water noted that for these measures it is likely to take time to see improvement due to the legacy of infrastructure deficiency or the need to obtain

sufficient data from water meters to identify low priority leaks. Southern Water remains confident that these measures will show significant improvement in the second regulatory period and will achieve the minimum service standard targets by the end of that period.

The Economic Regulator has decided to approve Southern Water's revised transitional service standards.

3.3.3 Summary - Transitional Service Standards

As explained in section 3.2.4, allowing the regulated entities to nominate transitional service standards recognises that it will take time for each entity to achieve service standards that are comparable to similar businesses in other Australian jurisdictions. The customer service framework also provides certainty to customers in that required service standards will be published and the Economic Regulator will report on performance against these standards.

Where a regulated entity does not meet an approved transitional service standard, their performance will be deemed to be non-compliant with the Code and they will be required to make the necessary changes to become compliant in accordance with the Compliance Enforcement Policy.

3.4 Regulatory compliance improvement

As outlined in Chapter 1, broader regulatory compliance improvement and compliance enforcement across the water and sewerage sector remains the responsibility of the Tasmanian industry regulators, being the Environment Protection Authority (EPA), Director of Public Health and the Secretary of the Department of Primary Industries, Parks, Water and Environment (DPIPWE), who is the Delegate for Dam Safety Regulation.

It is acknowledged that some non-compliance may not be able to be rectified for some time. Therefore, compliance improvement plans and programs are needed to ensure that the priority compliance improvement expectations of industry regulators are met.

Each regulated entity signed a Compliance Implementation Plan (CIP) with all Tasmanian industry regulators in October 2009 reflecting each regulated entity's compliance obligations at that time. The CIP's facilitated the development of compliance plans specifying the Tasmanian industry regulators compliance expectations.

The CIP's were designed to cover the period from the commencement of the regulated entities' activities on 1 July 2009 through to 30 June 2011. More detailed water, wastewater and dam safety management plans, subsequently negotiated between each regulated entity and the industry regulators, are designed to cover the period from 1 July 2011 to the end of the first regulatory period (30 June 2015).

The management plans for the first regulatory period were to be based on compliance improvement outcomes agreed to between each regulated entity and

the Tasmanian industry regulators. These were to be incorporated within each regulated entity's proposed Price and Service Plan.

The Economic Regulator expected that each regulated entity would liaise closely with the Tasmanian industry regulators in preparing their proposed Price and Service Plan to ensure that each regulator's compliance improvement expectations would be met over the first regulatory period.

The compliance improvement management plans and associated programs outlined by each regulated entity in their proposed Price and Service Plans are outlined in section 3.4.2.

The high level compliance obligations relating to health and environment are as follows:

- the Director of Public Health expects a regulated entity to comply fully with all requirements of the *Public Health Act 1997* and the *Fluoridation Act 1968* and develop and implement strategies to deal with non-compliance until all requirements are met.
- wastewater treatment plants in Tasmania must comply with the requirements for best practice environmental management and move toward implementing accepted modern technology under:
 - the *Environmental Management and Pollution Control Act 1994* (EMPCA) in terms of preventing, reducing and remediating environmental harm;
 - the State Policy on Water Quality Management 1997; and
 - the Emission Limit Guidelines for Sewage Treatment Plants that Discharge Pollutants into Fresh and Marine Waters 2001.
- each regulated entity is expected to fully comply with each of the above requirements recognising that the timeframe for individual plant compliance may vary depending on the outcomes of consultation with the EPA.

Each regulated entity also has a statutory obligation under section 165G of the *Water Management Act 1999* to maintain and operate their dams so as not to cause significant environmental harm or danger to any person or property. The criteria and guidelines to achieve this are contained in the *Water Management (Safety of Dams) Regulations 2003* and are based on various publications produced by the Australian National Committee on Large Dams (ANCOLD) and by DPIPWE.

The regulated entities are required to determine dam safety risks in their region through what is known as a portfolio risk assessment process. This enables a comparative estimate of risks over all dams and enables capital works requirements to be identified and quantified.

A dam safety works program is to be developed on this basis and agreed to by the Delegate for Dam Safety Regulation. The overall objective of each program is that

all dams within a regulated entity's portfolio would be within the Limit of Tolerability in terms of public risk and reduced to As Low As Reasonable Practicable, as defined in the ANCOLD guidelines. Dams that do not currently meet these criteria would require a capital works program that addresses the non-compliance. This program will be reported on, reviewed and revised on an annual basis through agreement between a regulated entity and the Delegate for Dam Safety Regulation.

3.4.1 Approach to assessing compliance improvement proposals

The appropriateness of expenditure proposals in each proposed Price and Service Plan, and the compliance improvement outcomes they are expected to deliver, have been reviewed as part of the Price Determination investigation.

To ensure the compliance improvement outcomes agreed to between each regulated entity and industry regulators are reflected in the relevant regulated entity's proposed Price and Service Plan, the Economic Regulator consulted with the other Tasmanian water and sewerage industry regulators on several occasions during the course of the Price Determination investigation. In particular, consultation occurred prior to the release of the draft Report and draft Price Determinations, after public consultation on those drafts and again prior to the release of this Report and the Price Determinations.

3.4.2 Assessment of compliance improvement programs

3.4.2.1 *Southern Water*

In its proposed Price and Service Plan, Southern Water stated that it consulted extensively with Tasmanian industry regulators in developing its proposed Price and Service Plan. This included briefing the Tasmanian industry regulators on the scale of the regulatory compliance task; the available information for decision making; and how Southern Water has balanced the various priorities in light of its financial and operational constraints.

As part of the development of its Waste Water Management Plan; various Drinking Water Quality Plans; dam safety compliance program; and asset management plan, Southern Water gathered input from the individual regulators to prioritise areas to be addressed.

Southern Water's proposed Price and Service Plan outlined the following plans and programs to address its regulatory obligations:

Drinking Water

- a Drinking Water Quality Management plan which outlines areas of high risk and proposes projects and mitigation measures to address these risks; a list of high priority sites (based on requirements from DHHS) identified through Southern Water's risk assessments and existing boil water alert status;

Wastewater

- a Waste Water Management Plan which outline areas of high risk and proposes projects and mitigation measures to address these risks; and a list of priority systems provided by the EPA which was considered when developing the Waste Water Management Plan;

Dam Safety

- meeting the following requirements for its dam portfolio:
 - they are operated and maintained in a safe manner;
 - dam hazard categories are known and regularly reviewed;
 - appropriate surveillance programs are implemented;
 - dam safety emergency plans are prepared and, where relevant, warning information and inundation maps are provided to appropriate emergency agencies to assist downstream emergency planning;
 - suitably qualified and experienced personnel are engaged on dam works and present during inspections;
 - suitable corporate governance structures and internal reporting processes are in place;
 - dam safety reviews are undertaken at the appropriate time; and
 - dam risk profiles are available and risks are being addressed on a priority basis.

3.4.2.2 *Ben Lomond Water*

In its proposed Price and Service Plan, Ben Lomond Water stated that the outcomes from consultation with the Tasmanian industry regulators underpinned the capital expenditure program set out in its Plan.

Ben Lomond Water's proposed Price and Service Plan outlined the following plans and programs it has developed to address its regulatory obligations:

Drinking Water

- a Drinking Water Quality Management plan which outlines areas of high risk and proposes projects and mitigation measures to address these risks;
- a public health priority list developed by the Director of Public Health to provide guidance to Ben Lomond Water in determining project priorities, which is a key driver of Ben Lomond Water's capital expenditure program; and
- management of all water systems is undertaken using the risk management principles of the Australian Drinking Water Guidelines (ADWG). The risk management approach is based on the completion of a comprehensive risk

assessment of the entire system. Water quality is verified through a comprehensive testing program.

Wastewater

- a Waste Water Management Plan which includes:
 - flow metering and inflow screening at multiple sites;
 - capital and operational improvements to pump stations;
 - development of Pump Station, Biosolids Management and Blue Green Algae Management Plans;
 - development of the Greater Launceston Wastewater Strategy to improve efficiencies through rationalisation of the current wastewater treatment plants and to establish a framework for the future management of wastewater in the greater Launceston area for the next 50 years (requiring investment in the order of \$160 million – \$250 million);
 - implementation of a reuse scheme at Beaconsfield Wastewater Treatment Plant;
 - various site reviews;
 - installation of emergency power supply plus a \$4.5 million project to address odour issues at Ti-Tree Bend Wastewater Treatment Plant;
 - electronic control and switchboard improvements;
 - upgrades at Deloraine Wastewater Treatment Plant;
 - approval and implementation of a reuse scheme at the Carrick Wastewater Treatment Plant; and
 - \$3 million upgrade to the Bridport Wastewater Treatment Plant.

Dam Safety

- a Dam Safety Management Plan that establishes a program of rolling dam safety compliance activities, based on allocating a higher priority to dams with higher hazard categories, larger storage volumes and/or known deficiencies.

When undertaking its capital expenditure planning, Ben Lomond Water's proposed Price and Service Plan stated that it consulted with the relevant Tasmanian industry regulators in:

- submitting its Waste Water Management Plan to the EPA – Ben Lomond Water consulted with the EPA in its review of its capital expenditure program relative to the capital expenditure priorities issued by the EPA;

- submitting its Water Quality Management Plan to DHHS - Ben Lomond Water consulted with DHHS in reviewing its capital expenditure program relative to the capital expenditure priorities issued by the Director of Public Health; and
- presenting its Dam Safety Management Plan - Ben Lomond Water reviewed its dam safety requirements relative to its capital expenditure program for dams.

3.4.2.3 *Cradle Mountain Water*

In its proposed Price and Service Plan, Cradle Mountain Water outlined the consultation it has undertaken with industry regulators in addressing its regulatory and service obligations, resulting in the development of the following key management plans and outcomes:

Drinking Water

- Drinking Water Quality Compliance Plan and Drinking Water Quality Management Plan developed in consultation with the DHHS focussed on the risk management principles to be applied, agreement on areas for improvement, agreement on timing of capital programs, system control plans, and priority action plans which include:
 - an overview of Cradle Mountain Water’s water quality commitments and obligations;
 - descriptions of each water supply system, focussing on how water quality is currently managed and recent performance history;
 - identification and assessment of risks to the quality of drinking water, considering each catchment-to-tap water supply system;
 - control plans (preventative strategies) for activities critical to eliminating or reducing health related risks to an acceptable level;
 - details of improvements necessary to ensure control plans provide effective long term risk management;
 - details of water quality monitoring, corrective action (e.g. incident response), verification and validation processes;
 - relevant information from Cradle Mountain Water’s Emergency Management Plan;
 - lists of important support systems used in water quality protection activities (e.g. Standard Operating Procedures); and
 - an outline of the interaction required between Cradle Mountain Water and other stakeholders.

Wastewater

- a Wastewater Management Plan developed in consultation with the EPA focussed on priority areas for improvement, priority short term action plans, longer term improvement plans, the timing of capital programs, and timelines to comply with wastewater treatment plant licence conditions which include:
 - an overview of Cradle Mountain Water’s environmental commitments and obligations;
 - an overview of the location and nature of all sewerage infrastructure operated by Cradle Mountain Water;
 - a risk register and summary of key environmental indicators as required by the EPA in relation to the operation of sewerage infrastructure;
 - a set of control plans in the form of preventative strategies for the management of wastewater;
 - a prioritised program of infrastructure upgrades and management measures to eventually achieve full compliance with key environmental indicators;
 - a plan to develop an environmental management system compliant with AS/NZS ISO 14001:2004 for the management and operation of sewerage infrastructure;
 - details of Cradle Mountain Water’s program to ensure compliance with relevant environmental legislation, policies, guidelines and orders in the wastewater sector;
 - relevant information from Cradle Mountain Water’s Emergency Management Plan;
 - lists of important support systems used in wastewater management activities (e.g. standard operating procedures); and
 - an outline of the interaction required between Cradle Mountain Water and other stakeholders.

Dam Safety

- a Dam Safety Compliance Management Program and Dam Safety Investigation Management Plan which provide for:
 - annual or biennial inspections depending on dam hazard category;
 - comprehensive surveillance reviews every five years;
 - dam safety reviews every 20 years;
 - special investigations;

- deformation surveys either biennially or every five years;
- the development and implementation of operation and maintenance manuals;
- the development and implementation of dam safety Emergency Management Plans; and
- dam safety Emergency Management Plan reviews.

Cradle Mountain Water's proposed Price and Service Plan stated that its drinking water, waste management and dam safety plans, combined with its Asset Management Plan and its Emergency Management Plan, outline short to medium term strategies that it will put in place to address its compliance obligations. These plans along with the proposed service standards form the basis for determining its future capital and operating expenditure.

Cradle Mountain Water's proposed Price and Service Plan stated that both the Waste Water Management Plan and the Drinking Water Quality Management Plan include a requirement for periodic review.

3.4.3 Industry regulators' assessment of compliance improvement programs

3.4.3.1 *Director of Public Health*

The Director of Public Health confirmed the list of compliance improvement projects for drinking water quality specified in each regulated entities proposed Price and Service Plan are consistent with the priority list agreed with DHHS.

The Director of Public Health noted that feasibility work by Ben Lomond Water associated with rectifying inconsistent compliance issues at Conara and Epping forest, had resulted in a deferral of work to bring these towns to full treatment status (due to higher than expected costs per connection). The Director of Public Health noted, however, that it expects Ben Lomond Water to continue to investigate options to resolve water quality issues for these towns.

3.4.3.2 *Environment Protection Authority (EPA)*

Overall, the EPA indicated it was satisfied with the level of consultation with each regulated entity, noting that all three wastewater treatment plans have been finalised and approved by the Director, EPA.

The EPA noted that the limit of available funds for capital expenditure is an obstacle to improved compliance and this obstacle is exacerbated by dividend payments to local government owners before the regulated entities are operating on a sustainable footing (where sustainability also includes meeting regulatory obligations).

The EPA noted also that its compliance expectations for the corporations were much higher than the expectations it placed on councils given that one of the key drivers for reform was that the corporations would be better placed than the councils

were to overcome the various obstacles to meeting compliance requirements; for example, the corporations possess economies of scale advantages compared to the relatively smaller local councils.

3.4.3.3 *Delegate for Dam Safety Regulation*

In relation to compliance obligations for dam safety, the Delegate for Dam Safety Regulation advised that:

- there has not been formal agreement as to compliance obligations regarding dam safety;
- DPIPWE sent a letter to each regulated entity in January 2010 outlining the broad requirements regarding dam safety, namely a risk assessment process which would define the required works program across their portfolio of dams to meet the desired safety criteria; and
- the regulated entities are expected to submit dam safety management plans and to follow this with a process of negotiation and agreement from DPIPWE as to the timelines for the works program to bring all dams up to the target criteria.

The Delegate for Dam Safety Regulation has advised that, from information available at the time of publication of this Report, Southern Water have substantially complied with the requirements set out in the January 2010 letter. The Delegate for Dam Safety Regulation anticipates ongoing discussions with Ben Lomond Water and Cradle Mountain Water regarding the development of their dam safety programs including carrying out the required detailed risk analysis for their respective dam portfolios.

4 ESTIMATING REVENUE LIMITS

This chapter outlines how the regulated entities are expected to perform over the first regulatory period (1 July 2012 to 30 June 2015) in terms of revenue.

It does this by comparing expected revenue in each year against specific revenue limits to determine whether each regulated entity will receive revenue that:

- will enable it to operate on a financially sustainable basis;
- is below the revenue limit set by Tasmanian law; and
- is below full cost recovery revenue levels.

This chapter presents:

- the principles governing revenue limits;
- the components of each revenue limit calculation; and
- analysis of calculated revenue limits compared to expected revenue over the first regulatory period.

As outlined in chapter 2, the focus of the first Price Determination investigation is the regulation of prices, rather than revenue. Caps (price constraints) will be placed on annual price movements and these price constraints will determine the revenue received by each regulated entity in each year of the first regulatory period.

That said, it is important to establish revenue limits as part of the first Price Determination investigation as it enables a comparison against expected revenue in each year to:

- assess whether the regulated entities are expected to achieve a financially sustainable level of revenue in the first regulatory period; and
- act as a basis of comparison to identify the extent of further revenue increases required to achieve legislative revenue limits and full cost recovery.

The calculations reflected in this chapter have been largely carried out on the basis of the data submitted by the regulated entities in their proposed Price and Service Plans. This data may have changed due to decisions made in this Report. However, while revenue limits have not been recalculated, the indicative analysis in this chapter is still considered valid.

4.1 Revenue limits – principles and applications

In establishing annual revenue limits, the Economic Regulator has adopted an approach that is consistent with:

- the pricing principles¹ articulated in the National Water Initiative (NWI); and
- the pricing principles under section 68 of the Industry Act and the additional pricing principles expressed in the Pricing Regulations.

4.1.1 National Water Initiative revenue limits

The NWI prescribes two revenue limits:

- the upper revenue limit (full cost recovery); and
- the lower revenue limit (sustainability threshold).

Under the NWI, a water and sewerage business should recover revenue that is at least equal to the lower revenue limit. However, a water and sewerage business should not recover revenue greater than the upper revenue limit, given that this would represent monopoly profits. Consistent with the National Water Commission's statements, and the pricing principles specified in the Industry Act and the Pricing Regulations, all water and sewerage businesses should ultimately be moving towards recovering revenue at the upper revenue limit.

4.1.2 Industry Act revenue limit

The Industry Act provides for an additional revenue limit to those prescribed under the NWI, the statutory revenue limit. The statutory revenue limit is the amount of revenue required to achieve the level of cost recovery stipulated in the Industry Act, calculated by applying the two separate rates of return on capital (weighted average costs of capital or WACCs) set out in section 68(1A) of the Industry Act; that is, one WACC for existing assets and another WACC for new assets.

For existing assets, the WACC incorporates a commercial rate of return on debt and a legislated pre-tax rate of return of three per cent on equity.

For new assets, the WACC incorporates a commercial rate of return on both debt and equity (and is the same WACC used in the calculation of the upper revenue limit).

The requirement for two WACCs necessitates creating two regulated asset bases (RABs). The RAB for existing assets will gradually decline over time due to depreciation and disposals reducing the value of existing assets. The RAB for new assets will increase with expenditure on capital projects.

¹ Natural Resource Management Ministerial Council, 23 April 2010:
<http://www.environment.gov.au/water/policy-programs/urban-reform/nwi-pricing-principles.html>

4.1.3 Revenue limit objectives for the first Price Determination investigation

As part of the first Price Determination investigation, the Economic Regulator has calculated values for each of the three revenue limits detailed above. A regulated entity should be aiming to transition revenue to:

- the lower revenue limit to achieve financial sustainability as soon as possible;
- the statutory revenue limit in the medium term (maximum revenue permitted under the Industry Act); and
- the upper revenue limit in the long term (full cost recovery level).

In its proposed Price and Service Plan, each regulated entity was required to provide sufficient information and data to enable the Economic Regulator to calculate the three revenue limits, as well as specifying the estimated annual transitional revenue that the regulated entity has calculated, based on the impact of its preferred price constraints on annual price movements.

4.2 Revenue limit definitions

4.2.1 Upper revenue limit

The upper revenue limit represents the amount of revenue required to achieve full cost recovery that is, recovering the cost of capital plus operating and maintenance costs.

The annual upper revenue limit (R_{UPPER}) is calculated as follows:

$$R_{UPPER} = (RAB \times WACC) + D + OM$$

where:

- RAB = value of regulated asset base
- WACC = weighted average cost of capital (return on capital)
- D = depreciation (return of capital)
- OM = operating and maintenance expenditure

4.2.2 Lower revenue limit

The lower revenue limit is the minimum revenue each regulated entity requires to cover its cost of operations and achieve financial sustainability.

The lower revenue limit (R_{LOWER}) is calculated as follows:

$$R_{\text{LOWER}} = \text{Debt} + \text{OM} + \text{ARA}$$

where:

Debt	=	debt servicing costs
OM	=	operating and maintenance expenditure
ARA	=	asset renewal annuity (see section 4.3.5)

4.2.3 Statutory revenue limit

The statutory revenue limit represents the amount of revenue required to achieve a level of cost recovery consistent with the requirements of the Industry Act.

Section 68(1A) of the Industry Act establishes a statutory revenue limit, which is based on separate WACCs for:

- existing assets i.e. all assets transferred to a regulated entity before 1 July 2011 under Part 3 of the Water and Sewerage Corporations Act, the WACC is to incorporate a commercial rate of return on the debt component and a legislated pre-tax rate of return of three per cent on the equity component; and
- new assets i.e. all assets purchased or constructed by a regulated entity since the commencement of its operations on 1 July 2009, the WACC is to incorporate a commercial rate of return on both debt and equity.

The statutory revenue limit ($R_{\text{RSTATUTORY}}$) is calculated as follows:

$$R_{\text{RSTATUTORY}} = (\text{RAB}_{\text{EXISTING}} \times \text{WACC}_{\text{EXISTING}}) + (\text{RAB}_{\text{NEW}} \times \text{WACC}_{\text{NEW}}) + \text{D} + \text{OM}$$

where:

$\text{RAB}_{\text{EXISTING}}$	=	value of the regulated asset base in respect of existing assets
$\text{WACC}_{\text{EXISTING}}$	=	weighted average cost of capital to be applied to existing assets
RAB_{NEW}	=	value of the regulated asset base in respect of new assets
WACC_{NEW}	=	weighted average cost of capital to be applied to new assets
D	=	depreciation
OM	=	operating and maintenance expenditure

4.3 Revenue limit components

The following sections present each component of the three revenue limits including:

- the basis and methodology for calculation;
- the data adopted by the Economic Regulator;
- any variations from data provided by the regulated entities; and
- a discussion of the results.

4.3.1 Regulated asset base

The regulated asset base (RAB) comprises the values of assets used to provide the regulated services and excludes the value of unregulated assets and any capital contributions from customers, governments or other third parties. The value of the RAB is a significant factor in determining revenue requirements.

In a standard Price Determination investigation the Economic Regulator would source independent analyses of asset values and capital expenditure. Due to time constraints, for the purpose of the current Price Determination investigation, the Economic Regulator will use the asset data provided by the regulated entities to determine each regulated entity's RAB.

Both the return on capital and the return of capital are calculated with reference to the RAB.

The RAB in each financial year will be based on the average of the opening and closing RAB values for that year.

The opening RAB's have been calculated on the basis of the information supplied by the regulated entities' in their data sheets as part of the proposed Price and Service Plans. The roll forward was based on 1 July 2009 DORC values audited by an independent third party. The opening RAB in each year is adjusted as follows:

- + Capex
- Depreciation
- Asset disposals
- Third party capital contributions

to determine the closing RAB for each financial year (which is rolled forward to become the opening RAB for the subsequent year). The rate of return is calculated on the average of the opening and closing RAB's for each year.

4.3.1.1 *Unregulated assets*

In its proposed Price and Service Plan, Cradle Mountain Water submitted that it did not own any unregulated assets and, therefore, did not incur any costs associated with unregulated services that are being provided via its regulated water and sewerage assets.

This claim was queried and Cradle Mountain Water responded noting:

- that irrigation customers and tankered waste operate from pipes and systems which would not be any different in size or diameter in the event that the unregulated activities were to cease;
- there is no intended capital expenditure on unregulated assets during the first regulatory period; and
- in the event that capital is expended, the amounts would be fully funded by unregulated customers.

From the Economic Regulator's perspective, the critical issue here is determining the efficient level of investment required to deliver the regulated service only. There are several approaches to making this assessment, one approach being determining what would be the optimal level of investment required if the regulated entity built the infrastructure now to provide regulated service only.

On the basis of the above, the Economic Regulator has decided to accept Cradle Mountain Water's claims and will examine this issue further in the second Price Determination investigation.

Southern Water's proposed Price and Service Plan stated that the provision of water for irrigation did not require any additional pipe sizing and, therefore, no assets (or proportionate value of assets) have been excluded on the basis that they are unregulated. It is understood that this is because irrigation water is provided during off-peak times.

In response to a query, Southern Water advised that it owned one pipeline between Cobbs Hill Reservoir and Tea Tree for the use of irrigators who had paid for the pipeline.

The Economic Regulator, decided, therefore, to exclude the value of the Cobbs Hill Reserve to Tea Tree pipeline (\$881 400) from Southern Water's opening RAB.

The Economic Regulator also decided to exclude sewerage assets valued at \$505 000 from Southern Water's RAB to account for a proportion of reuse assets funded by reuse water irrigation customers.

Ben Lomond Water identified and deducted the value of Launceston's combined sewerage/stormwater system from regulated assets in its proposed Price and Service Plan. Ben Lomond Water valued the amount of this asset to be excluded from the RAB as being \$75.78 million in their proposed Price and Service Plan but valued this asset at \$70.21 million in the data sheet it submitted to the Economic Regulator.

This variation was queried with Ben Lomond Water which responded that the lower valuation was based on an accounting analysis of the value of Ben Lomond Water's combined assets whereas the higher figure was based on an engineering based review of those assets.

The Economic Regulator notes that, in this instance, Ben Lomond Water has adopted the lower of the two valuations available for the unregulated component of this asset and will reassess this issue as part of the second Price Determination investigation.

4.3.1.2 Capital Expenditure

Capital expenditure (capex) is investment in new assets. The following table presents capex for each year of the first regulatory period split between water and sewerage assets, as proposed by the regulated entities. The appropriateness of the proposed capex with respect to regulatory compliance improvement is discussed further in chapter 3.

Table 4.1 Regulated entities' proposed capex (\$'000s)

	2012-13		2013-14		2014-15	
	Water	Sewerage	Water	Sewerage	Water	Sewerage
Ben Lomond Water	25 748	8 449	9 120	19 283	5 637	23 080
Cradle Mountain Water	11 130	9 612	7 915	10 526	10 054	8 070
Southern Water	20 821	42 911	23 311	41 401	29 965	34 375

Cradle Mountain Water's annual capex is expected to reduce over the first regulatory period with water capex higher in 2012-13 and 2014-15 and sewerage capex higher in 2013-14.

Ben Lomond Water's annual capex is also expected to decline after the first year and remains constant for the remaining two years. Initially, Ben Lomond Water's investment in water related projects is much higher, however, water capex declines in the second and third years and is replaced with increased sewerage capex.

Southern Water's capex is expected to increase slightly over the regulatory period with higher capex for sewerage than water overall, although expenditure on sewerage is expected to decline while expenditure on water is expected to increase over the first regulatory period.

4.3.1.3 Third party capital contributions

Third party capital contributions are assets contributed by third parties that are not funded by the regulated entity and include developer charges, service introduction charges, and government grants. The following table presents the third party capital contributions which each regulated entity expects to receive over the first regulatory period.

Table 4.2 Third party capital contributions (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	1 904	1 896	1 900
Cradle Mountain Water	1 402	1 442	1 482
Southern Water	8 462	8 341	8 069

As indicated in Table 4.2, third party capital contributions are expected to be significantly higher for Southern Water over the first regulatory period than for the other regulated entities.

Third party capital contributions are netted off the value of the RAB as regulated entities are not permitted to receive a return on capital, or return of capital, that they did not fund.

The Economic Regulator acknowledges that the value of the opening RAB includes assets contributed by third parties prior to the formation of the regulated entities. However, due to inadequate reporting practices prior to the reform process, it is not possible to determine the value of past third party capital contributions and, therefore, no adjustment has been made to the opening RAB to account for these.

The Economic Regulator considers that the inability to recognise past third party capital contributions is compensated for by the Government establishing the statutory revenue limit, which will prevent the regulated entities achieving full cost recovery for an extended period.

4.3.1.4 Depreciation

The inclusion of depreciation enables the regulated entity to recoup its investment in regulated assets over the life of those assets. As such, it provides for a return of capital, in addition to the return on capital.

A regulated entity is required to calculate depreciation using the straight line method (i.e. multiplying the original asset cost by the depreciation rate for every year in which it is owned) based on the average useful life of regulated assets as calculated in the RAB. This results in one depreciation rate applying throughout the first regulatory period.

Table 4.3 presents each regulated entity's estimated depreciation for each year of the first regulatory period. This depreciation amount is used to calculate the upper revenue limit.

Table 4.3 Upper revenue limit - depreciation (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	21 902	22 381	22 815
Cradle Mountain Water	21 317	22 319	22 859
Southern Water	39 947	40 858	41 779

As mentioned previously, the determination of the statutory revenue limit requires the calculation of two RABs (one for existing assets and one for new assets). Average asset lives will differ across these asset categories and will result in different depreciation rates.

Table 4.4 and Table 4.5 show estimated depreciation for each regulated entity for each year of the first regulatory period across the new asset and existing asset categories.

Table 4.4 Statutory revenue limit – depreciation (new assets) (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	1 386	1 872	2 312
Cradle Mountain Water	767	1 068	1 345
Southern Water	2 162	3 078	4 004

As originally proposed, Cradle Mountain Water's depreciation on new assets was higher than the other regulated entities despite the fact that its new asset RAB was smaller than the other entities. This was because Cradle Mountain Water used an "asset class useful life" over the first regulatory period to determine its useful life for new assets, thereby ensuring that its useful life reconciled with that reported in its financial statements. Cradle Mountain Water's useful life was, therefore, much shorter for new assets resulting in a higher rate of depreciation for this asset category. In contrast, the useful life of Ben Lomond Water and Southern Water's assets was based on independently determined DORC asset values and respective asset useful lives.

To assist comparisons between the regulated entities the Economic Regulator has decided to adopt a useful life for Cradle Mountain Waters' new assets of 60 years. The Economic Regulator does not intend recalculating the required revenues as these do not determine prices for the first regulatory period.

The Economic Regulator will investigate this issue in more detail in the second Price Determination investigation.

Table 4.5 Statutory revenue limit – depreciation (existing assets) (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	20 517	20 510	20 503
Cradle Mountain Water	18 826	18 825	18 825
Southern Water	37 786	37 780	37 775

4.3.1.5 Upper revenue limit RAB

Based on the information supplied by each of the regulated entities the Economic Regulator has calculated the average RAB's as follows:

Table 4.6 Upper revenue limit RAB (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	757 088	764 107	767 939
Cradle Mountain Water	713 833	710 013	704 073
Southern Water	1 552 407	1 567 625	1 582 429

The value of the RAB for Ben Lomond Water and Southern Water are expected to increase over the first regulatory period. However, Cradle Mountain Water's RAB is expected to decline in value over the period as capex is being offset by depreciation.

4.3.1.6 Statutory revenue limit RAB

The statutory revenue limit requires the calculation of a separate RAB for existing assets and new assets.

For the existing assets RAB, the closing RAB value in each financial year is calculated as follows:

Opening RAB value
 + any assets transferred to the regulated entity under Part 3 of the
 Water and Sewerage Corporations Act before 1 July 2011
 - depreciation on existing assets
 - disposals of existing assets
 = Closing RAB value

The existing assets RAB will, therefore, reduce in value over time through depreciation and disposals.

For the new assets RAB, the closing RAB value in each financial year is calculated as follows:

Opening RAB value
 + Capex
 - depreciation on new assets
 - disposals of new assets
 - third party capital contributions
 = Closing RAB value

Therefore, the new assets RAB is rolled forward on the same basis as the RAB roll forward under the upper revenue limit and will increase over time as the regulated entities invest in capex.

The following tables present the average RAB value calculated for each year of the first regulatory period for existing assets and new assets for each regulated entity.

Table 4.7 Statutory revenue limit - RAB (existing assets) (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	673 563	652 811	632 073
Cradle Mountain Water	668 335	649 460	630 635
Southern Water	1 417 429	1 379 446	1 341 468

Table 4.8 Statutory revenue limit - RAB (new assets) (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	83 525	111 296	135 866
Cradle Mountain Water	45 498	60 554	73 438
Southern Water	134 978	188 179	240 960

4.3.2 Weighted Average Cost of Capital

The return on capital is calculated using the weighted average cost of capital (WACC). The WACC is the weighted average of the cost of debt and cost of equity. In line with accepted regulatory practice, a benchmarked debt to equity ratio is used to determine the WACC.

The WACC can be set on a real or nominal, pre-tax or post-tax basis. There is little consistency across Australia in terms of the type of WACC adopted for the water and sewerage sector. The Economic Regulator has adopted a real pre-tax WACC.

Two separate WACC calculations are required for the purposes of determining the upper and statutory revenue limits.

4.3.2.1 *Upper revenue limit WACC and WACC_{new assets} for statutory revenue limit*

The calculation of the upper and statutory revenue limits requires the application of a full commercial risk adjusted WACC. In the case of the upper revenue limit, this WACC is applied to the average RAB value in each year.

For the statutory revenue limit, this same WACC is applied to the average RAB value of new assets only and in that context is referred to as the $WACC_{\text{new assets}}$.

$$WACC_{\text{nominal}} = R_d \times G + R_e \times \left(\frac{1}{(1 - t(1 - \gamma))} \right) \times (1 - G)$$

$$WACC_{\text{real}} = \left(\frac{(1 + WACC_{\text{nominal}})}{(1 + i)} \right) - 1$$

where:

R_e	=	Cost of equity (post-tax)
	=	$R_f + \beta_e \times (\text{MRP})$
R_d	=	pre-tax cost of debt
MRP	=	market risk premium
R_f	=	risk free rate
t	=	corporate tax rate
β_e	=	equity beta
G	=	gearing ratio
i	=	forecast inflation (annual average over regulatory period)
γ	=	gamma - represents the proportion of imputation credits, which can be utilised by shareholders and varies between 0 and 1

The Economic Regulator has adopted the following values for each component of the WACC formula in relation to all assets in the upper revenue limit calculation and new assets in the statutory revenue limit calculation.

Table 4.9 Calculation of the new assets $WACC_{\text{REAL}}$

Component	Description	Proposed value
R_e	cost of equity (post tax)	8.17%
R_d	pre-tax cost of debt	7.02%
MRP	market risk premium	6.00%
R_f	risk free rate	4.27%
T	corporate tax rate	30.00%
β_e	equity (beta)	0.65
G	gearing ratio	60.00%
i	forecast inflation	2.60%
γ	gamma	50.00%
NEW ASSETS $WACC_{\text{real}}$		5.32%

4.3.2.2 *WACC_{existing} for statutory revenue limit*

For existing assets, the Industry Act requires the adoption of a WACC that incorporates a real pre-tax cost of equity of three per cent per annum. Therefore, the formula for the WACC on existing assets is as follows:

$$\text{EXISTING WACC}_{\text{NOMINAL}} = (R_d \times G) + (Z \times (1 - G))$$

where:

- Z = Statutory pre-tax return on equity replacing $R_e \times \left(\frac{1}{(1 - i(1 - \gamma))} \right)$ in the new assets WACC formula.
- R_d = pre-tax cost of debt
- G = gearing ratio

This is the WACC to be applied to the existing assets RAB in calculating the statutory revenue limit.

The Economic Regulator has adopted the following values for each component of the WACC formula in relation to existing assets:

Table 4.10 Calculation of the existing assets WACC_{REAL}

Component	Description	Proposed value
R _d	pre-tax cost of debt	7.02%
G	gearing ratio	60.00%
Z	statutory pre-tax return on equity	3.00%
i	forecast inflation	2.60%
EXISTING ASSETS WACC_{REAL}		2.74%

4.3.3 Operating and maintenance expenditure

Operating and maintenance (OM) expenditure is incurred by the regulated entity in providing regulated services and maintaining and operating the relevant assets.

An allowance is made for the recovery of efficient operating and maintenance expenditure which consists of:

- operating costs - costs incurred in operating the water and sewerage system, including the cost of collecting, treating, testing, and pumping water and sewerage and also include royalties, chemicals, power, and labour;
- maintenance costs - the direct costs of maintaining the water and sewerage systems and include materials, internal labour costs, and contractor costs. The total maintenance costs will vary with the type, age, and general condition of the assets;

- regulatory costs - including charges imposed by the various industry Regulators and internal costs incurred in complying with regulatory obligations; and
- administration costs - including all overhead costs, salaried staff costs (including costs of planning and engineering staff) and other items such as Board costs but excluding depreciation and interest costs.

OM expenditure is a component of all three revenue limit calculations and is shown in the table below for each regulated entity for each year of the first regulatory period.

Table 4.11 OM expenditure in real dollars (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water (see note)	40 742	41 695	43 065
Cradle Mountain Water	33 541	33 867	35 010
Southern Water	68 830	68 321	68 265

Note: during the course of the Price Determination investigation a calculation error was identified with respect to Ben Lomond Water's OM expenditure. The original figures are reflected in the above table with the correct figures being \$40.124m, \$40.432m and \$41.140m for the 2012-13, 2013-14 and 2014-15 financial years respectively. As noted at the start of this chapter, the Economic Regulator's revenue limit calculations have been based on data supplied by the regulated entities, the Economic Regulator has not recalculated these revenue limits to reflect the decisions detailed in this Report and the resultant calculations are, therefore, indicative only at this stage.

4.3.3.1 *Benchmarking of OM expenditure*

In this first Price Determination investigation, the Economic Regulator has conducted a benchmark analysis of the regulated entities' OM expenditure relative to comparable water and sewerage service providers in other Australian jurisdictions to give an indication of the appropriateness of the regulated entities' proposed OM expenditure. The Economic Regulator recognises that the selection of comparable service providers is not a simple task and has chosen the mainland providers based on the best available data. In reviewing the Economic Regulator's analysis, readers must take into account comparability issues such as interstate water and sewerage service providers having higher levels of regulatory compliance, which usually leads to higher OM expenditure.

The Economic Regulator has selected the following comparable service providers (as listed in Table 4.12 to Table 4.17) for this benchmarking exercise based on water and sewerage network length (km), the number of water and sewerage treatment plants, the number of residential and non-residential properties connected to the respective water and sewerage infrastructure and the value of water and sewerage assets operated by the provider.

Table 4.12 Ben Lomond Water and comparators

Provider	No. of connected properties – Water	No. of connected properties – Sewerage	Combined water and sewerage assets (\$m)	Water network (km)	Sewerage network (km)	No. of water treatment plants	No. of sewage treatment plants
Ben Lomond Water	57 275	49 987	727	1 925	1 470	12	35
Goulburn Valley Water (VIC)	53 830	47 218	756	1 751	1 207	24	26

Table 4.13 Cradle Mountain Water and comparators

Provider	No. of connected properties – Water	No. of connected properties – Sewerage	Combined water and sewerage assets (\$m)	Water network (km)	Sewerage network (km)	No. of water treatment plants	No. of sewage treatment plants
Cradle Mountain Water	43 042	40 326	634	1 328	1 117	13	27
Wannon Water (VIC)	40 671	34 251	478	1 821	886	10	19
North East Water (VIC)	46 159	40 602	642	1 625	1 086	18	18

Table 4.14 Southern Water and comparators

Provider	No. of connected properties – Water	No. of connected properties – Sewerage	Combined water and sewerage assets (\$m)	Water network (km)	Sewerage network (km)	No. of water treatment plants	No. of sewage treatment plants
Southern Water	95 304	75 174	1 365	3 000	1 948	12	48
Barwon Water (VIC)	137 305	123 628	1 858	3 670	2 338	10	9

The Economic Regulator has conducted its benchmarking of OM expenditure on the latest data available at the time of releasing this Report (i.e. the 2010-11 Urban Water NPR data) and recognises that costs may have changed since 2010-11.

Table 4.15 Benchmarking of operating costs per property - Ben Lomond Water and Goulburn Valley Water

2010-11	Water – operating cost per property (\$)	Sewerage – operating cost per property (\$)	Total operating cost – Water and sewerage per property (\$)
Ben Lomond Water	280	392	672
Goulburn Valley Water	348	369	717

In 2010-11, Ben Lomond Water’s operating cost for water services per property were \$68 less than Goulburn Valley Water’s.

For the same period, Ben Lomond Water’s sewerage operating costs per property were \$23 more than Goulburn Valley Water’s costs.

For 2010-11, Ben Lomond Water’s combined water and sewerage operating costs per property were \$45 less than Goulburn Valley Water’s combined water and sewerage operating costs per property.

Table 4.16 Benchmarking of operating costs per property - Cradle Mountain Water, Wannon Water and North East Water

2010-11	Water – operating cost per property (\$)	Sewerage – operating cost per property (\$)	Total operating cost – Water and sewerage per property (\$)
Cradle Mountain Water	376	356	732
Wannon Water	467	480	947
North East Water	366	364	730

In 2010-11, Cradle Mountain Water’s operating cost for water services per property were \$10 more than North East Water’s and \$91 lower than Wannon Water’s corresponding costs.

For the same period, Cradle Mountain Water’s sewerage operating costs per property were \$124 less than Wannon Water’s costs and \$8 less than North East Water’s sewerage costs.

Overall, in 2010-11, Cradle Mountain Water’s combined water and sewerage operating costs per property were \$215 less than Wannon Water’s combined water and sewerage operating costs per property and \$2 higher than North East Water’s combined costs per property.

Table 4.17 Benchmarking of operating costs per property - Southern Water and Barwon Water

2009-10	Water – operating cost per property (\$)	Sewerage – operating cost per property (\$)	Total operating cost – Water and sewerage per property (\$)
Southern Water	311	392	703
Barwon Water	319	280	599

In 2010-11, Southern Water’s operating costs for water services per property were \$8 less than Barwon Water’s corresponding costs.

For the same period, Southern Water’s operating costs for sewerage services per property were \$112 higher than Barwon Water’s operating costs for sewerage services per property.

Overall, in 2010-11, Southern Water’s combined water and sewerage operating costs per property were \$104 more than Barwon Water’s combined water and sewerage operating costs per property.

This comparison with other providers needs to take into account that mainland providers generally have higher levels of regulatory compliance, which would be reflected in their operating costs.

Whilst Ben Lomond Water’s and Cradle Mountain Water’s combined water and sewerage operating costs per property were, respectively, lower than, or similar to, the corresponding costs of comparable mainland providers, Southern Water’s combined water and sewerage operating costs per property were over \$100 more than a benchmarked mainland provider.

This is of some concern to the Economic Regulator in terms of future price impacts on customers as operating costs generally increase as the level of regulatory compliance improves. The Economic Regulator expects the regulated entities will, over time, achieve efficiencies in operations which will offset this impact. This issue will be assessed in detail as part of the second Price Determination investigation.

4.3.4 Debt servicing costs

The calculation of the lower revenue limit includes actual debt servicing costs rather than a benchmark level of debt due to the lower revenue limit reflecting the sustainability threshold.

An estimate of expected debt servicing costs has been provided for each financial year of the first regulatory period.

It is assumed that debt has been applied equally over each regulated entity’s assets, rather than being attributed to a particular regulated asset or assets. The debt servicing costs to be included in the lower revenue limit calculation are determined by multiplying total debt servicing costs by the ratio of the value of regulated assets to the value of total assets held by the regulated entity.

The following table shows the regulated entities expected debt servicing costs.

Table 4.18 Debt servicing costs (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	3 349	4 668	5 345
Cradle Mountain Water	6 127	6 133	6 196
Southern Water	11 798	14 212	15 791

Cradle Mountain Water's debt servicing costs essentially remain constant over the first regulatory period and it is assumed, therefore, that its debt also remains relatively constant (Cradle Mountain Water has a higher debt to equity ratio than the other two regulated entities).

Ben Lomond Water's debt servicing costs are projected to increase by 60 per cent and Southern Water's by 34 per cent over the first regulatory period and it is assumed, therefore, that their respective debt levels are also increasing proportionately over this period.

4.3.5 Asset renewal annuity

The Asset Renewal Annuity (ARA) is an annualised calculation of the future asset renewal and replacement program required to maintain the operating capacity of infrastructure assets over the life of the regulated entity.

Investment in infrastructure assets is generally "lumpy" rather than being able to be added in regular small increments. Therefore, an annuity is used to smooth out the year to year lumpiness in asset refurbishment and replacement expenditure. As such, it represents an equal annual amount that is equivalent, in net present value terms, to the stream of future expenditure required for the renewal of infrastructure assets.

The ARA should not, be confused with, or compared to, depreciation. The ARA estimates the funds required to replace assets, whereas depreciation apportions the cost of assets over their useful lives.

The asset renewal annuity is included in the calculation of the lower revenue limit and is calculated using the following formula:

$$ARA = NPV \times \left(\frac{r}{(1 - (1 + r)^{-n})} \right)$$

where:

NPV = the net present value of projected asset renewal and replacement expenditure

r = the discount rate

n = the number of years

Upon direction from the Economic Regulator, the regulated entities also included the cost of achieving regulatory compliance in their ARA. This position was adopted as

achieving regulatory compliance (i.e. operating legally) is considered necessary to achieving sustainable operations.

The discount rate used in calculating the NPV for the ARA is the WACC adopted for the upper revenue limit calculation (i.e. 5.32 per cent).

The ARA's, as provided by the regulated entities in the data sheets submitted with their proposed Price and Service Plans, are reflected in Table 4.19.

Table 4.19 Regulated entities – ARA's as submitted (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	26 910	26 910	26 910
Cradle Mountain Water	19 766	19 766	19 766
Southern Water	54 790	54 790	54 790

The Economic Regulator has assessed each regulated entity's ARA.

Southern Water's original data was adjusted downwards to correct a calculation error.

Ben Lomond Water and Cradle Mountain Water ARA's were also adjusted downwards. These adjustments were made to remove profiled expenditure in the early years of the annuity calculation which was included to attempt to recognise past under expenditure. However, the resulting expenditure profile was not practically achievable. Therefore, in both instances, the amounts were re-profiled over the first ten years of the annuity resulting in decreases of \$4.12 million per year for Ben Lomond Water and \$0.18 million per year for Cradle Mountain Water respectively.

Table 4.20 shows the ARA amounts determined by the Economic Regulator for each regulated entity for each year of the first regulatory period.

Table 4.20 Regulated entities – ARA's as determined by the Economic Regulator (\$'000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	22 791	22 791	22 791
Cradle Mountain Water	19 585	19 585	19 585
Southern Water	37 862	37 862	37 862

4.4 Revenue limit calculations

This section presents the revenue limit calculations for each regulated entity for each year of the first regulatory period.

The calculations in this section have been built up using data discussed in section 4.3 and the revenue limit formulae presented in section 4.2.

4.4.1 Revenue limit calculations – Ben Lomond Water

Table 4.21 Ben Lomond Water upper revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
RAB (a)	757 088	764 107	767 939
Depreciation (b)	21 902	22 381	22 815
O&M (c)	40 742	41 695	43 065
WACC (d)	5.32%	5.32%	5.32%
Upper revenue limit = (a x d) + b + c	102 910	104 714	106 723

Table 4.22 Ben Lomond Water lower revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
Debt servicing costs (a)	3 349	4 668	5 345
O&M (b)	40 742	41 695	43 065
ARA (c)	22 791	22 791	22 791
Lower revenue limit = a + b + c	66 882	69 153	71 202

Table 4.23 Ben Lomond Water statutory revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
RAB _{existing} (a)	673 563	652 811	632 073
WACC _{existing} (b)	2.74%	2.74%	2.74%
RAB _{new} (c)	83 525	111 296	135 866
WACC _{new} (d)	5.32%	5.32%	5.32%
O&M (e)	40 742	41 695	43 065
Depreciation (f)	21 902	22 381	22 815
Statutory revenue limit = (a x b) + (c x d) + e + f	86 588	89 095	90 885

4.4.2 Revenue limit calculations – Cradle Mountain Water

Table 4.24 Cradle Mountain Water upper revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
RAB (a)	713 833	710 013	704 073
Depreciation (b)	21 317	22 319	22 859
O&M (c)	33 541	33 867	35 010
WACC (d)	5.32%	5.32%	5.32%
Upper revenue limit = (a x d) + b + c	92 823	93 947	95 315

Table 4.25 Cradle Mountain Water lower revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
Debt servicing costs (a)	6 127	6 133	6 196
O&M (b)	33 541	33 867	35 010
ARA (c)	19 585	19 585	19 585
Lower revenue limit = a + b + c	59 253	59 585	60 791

Table 4.26 Cradle Mountain Water statutory revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
RAB _{existing} (a)	668 335	649 460	630 635
WACC _{existing} (b)	2.74%	2.74%	2.74%
RAB _{new} (c)	45 498	60 554	73 438
WACC _{new} (d)	5.32%	5.32%	5.32%
O&M (e)	33 541	33 867	35 010
Depreciation (f)	21 317	22 319	22 859
Statutory revenue limit = (a x b) + (c x d) + e + f	75 595	77 206	79 059

4.4.3 Revenue limit calculations – Southern Water

Table 4.27 Southern Water upper revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
RAB (a)	1 552 407	1 567 625	1 582 429
Depreciation (b)	39 947	40 858	41 779
O&M (c)	68 830	68 321	68 265
WACC (d)	5.32%	5.32%	5.32%
Upper revenue limit = (a x d) + b + c	191 341	192 553	194 204

Table 4.28 Southern Water lower revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
Debt servicing costs (a)	11 798	14 212	15 791
O&M (b)	68 830	68 321	68 265
ARA (c)	37 862	37 862	37 862
Lower revenue limit = a + b + c	118 489	120 396	121 918

Table 4.29 Southern Water statutory revenue limit calculation (\$'000s)

	2012-13	2013-14	2014-15
RAB _{existing} (a)	1 417 429	1 379 446	1 341 468
WACC _{existing} (b)	2.74%	2.74%	2.74%
RAB _{new} (c)	134 978	188 179	240 960
WACC _{new} (d)	5.32%	5.32%	5.32%
O&M (e)	68 830	68 321	68 265
Depreciation (f)	39 947	40 858	41 779
Statutory revenue limit = (a x b) + (c x d) + e + f	154 804	156 995	159 625

4.5 Assessment of revenue limits against expected revenue

This section compares revenue limits calculated in section 4.4 against revenue that each regulated entity expects to earn in each year of the first regulatory period. Forecast returns to owners (dividend payments, income tax equivalents and guarantee fees) and expected debt servicing costs and capex are also assessed as part of this comparison. This enables an assessment of the performance of the regulated entities against the following points:

- are the regulated entities financially sustainable;
- how much funding will be provided by customers (the extent of revenue growth over the period);
- how much funding will be provided by debt; and
- where the money will be spent (how the funding is going to be applied e.g. capex, dividend payments, OM).

This comparison also provides an indication of the extent of revenue increases required to achieve statutory and upper revenue limits in future regulatory periods.

4.5.1 Expected revenue, profit and returns to owners for the first regulatory period

This section presents expected revenue for each regulated entity for each year of the first regulatory period. These estimates were provided by the regulated entities and were determined based on their preferred price constraint scenarios and forecasts of customer numbers, usage, and transactions.

This section also presents forecasts of Net Profit After Tax (NPAT) and returns to owners for each regulated entity for each year of the first regulatory period to assist readers make an informed analysis of the regulated entities' forecast financial performance.

Each regulated entity is required to determine a dividend policy as set out in Division 5 of the Water and Sewerage Industry Corporations Act. The Board determines the dividend level and does so with reference to the financial

circumstances of the business and taking into account the shareholders expectations.

The Economic Regulator has no control over the level of dividends each regulated entity forecasts it will pay over the first regulatory period.

Table 4.30 Regulated entities’ expected revenue (\$’000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	62 162	65 473	67 926
Cradle Mountain Water	55 540	60 069	62 484
Southern Water	116 781	119 285	120 543

Table 4.31 Regulated entities’ forecast NPAT (\$’000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	4 315	5 600	7 088
Cradle Mountain Water	4 292	7 196	7 586
Southern Water	10 842	11 251	11 479

Table 4.32 Regulated entities’ forecast dividends on an accruals basis (\$’000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	2 214	2 755	3 940
Cradle Mountain Water	1 607	1 848	2 225
Southern Water	10 181	9 511	9 135

Table 4.33 Regulated entities’ forecast income tax equivalents on an accruals basis (\$’000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	2 266	2 964	3 995
Cradle Mountain Water	2 378	2 776	2 582
Southern Water	3 292	3 826	4 089

Table 4.34 Regulated entities’ forecast guarantee fees on an accruals basis (\$’000s)

	2012-13	2013-14	2014-15
Ben Lomond Water	258	380	443
Cradle Mountain Water	979	1 178	1 472
Southern Water	1 139	1 275	1 388

Table 4.35 Regulated entities’ total distributions to owners on an accruals basis (\$’000s)

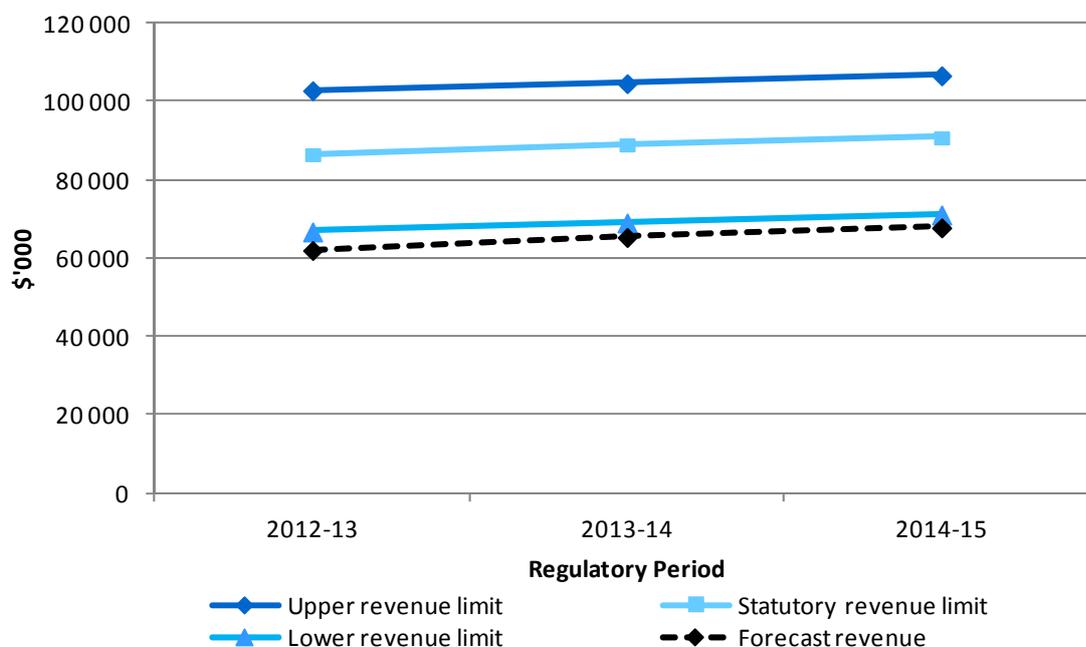
	2012-13	2013-14	2014-15
Ben Lomond Water	4 738	6 099	8 378
Cradle Mountain Water	4 964	5 802	6 279
Southern Water	14 612	14 612	14 612

Table 4.36 Regulated entities' total distributions to owners on an accruals basis per customer (\$)

	2012-13	2013-14	2014-15
Ben Lomond Water	81.69	105.16	144.45
Cradle Mountain Water	135.80	158.73	171.78
Southern Water	173.39	173.39	173.39

4.5.2 Revenue assessment – Ben Lomond Water

The following chart shows the three calculated revenue limits as well as forecast revenue for Ben Lomond Water for each year of the first regulatory period.

Figure 4.1 Ben Lomond Water – revenue analysis

In summary:

- revenue is projected to grow, in real terms, by nine per cent over the first regulatory period;
- revenue is below a sustainable level but trending towards the lower revenue limit;
- revenue will not reach the statutory limit by 30 June 2015 and, at \$67.926 million, is just over two-thirds of the full cost recovery limit of \$106.723 million;
- debt servicing costs are projected to increase by 60 per cent implying that underlying debt is also increasing significantly over the period;
- OM expenditure is forecast to increase by 2.5 per cent over the period;

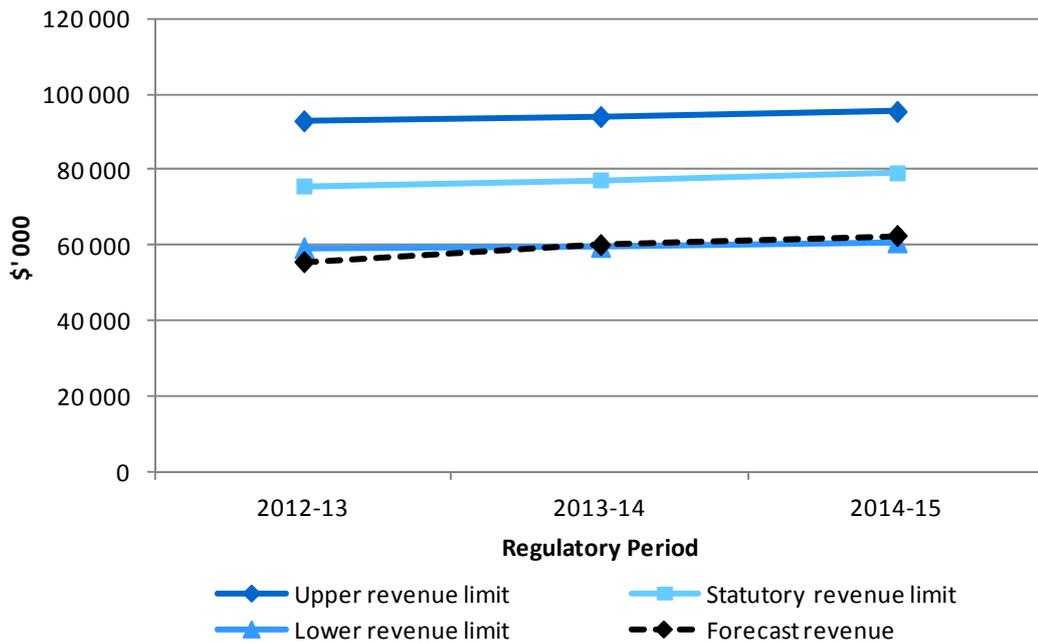
- capex is expected to decline after the first year and remain constant for the remaining two years; and
- NPAT is forecast to increase by 64.3 per cent with forecast dividends and returns to owners each expected to increase by 77 per cent over the period.

It appears that, over the first regulatory period, Ben Lomond Water will experience moderate increases in annual revenue from customers. Ben Lomond Water remains in a financially unsustainable position over the period. Increased revenue from customers and increased debt is being utilised to fund increases in returns to owners and to fund capex at levels that are expected to decline after the first year of the first regulatory period.

4.5.3 Revenue assessment – Cradle Mountain Water

The following chart shows the three calculated revenue limits as well as forecast revenue for Cradle Mountain Water for each year of the first regulatory period.

Figure 4.2 Cradle Mountain Water – revenue analysis



In summary:

- revenue from customers is projected to increase, in real terms, by 13 per cent over the first regulatory period;
- debt servicing costs are steady implying that underlying debt remains relatively constant over the period;
- revenue is transitioning from an unsustainable level to a sustainable level over the period (revenue in 2013-14 is expected to be above the lower revenue limit);

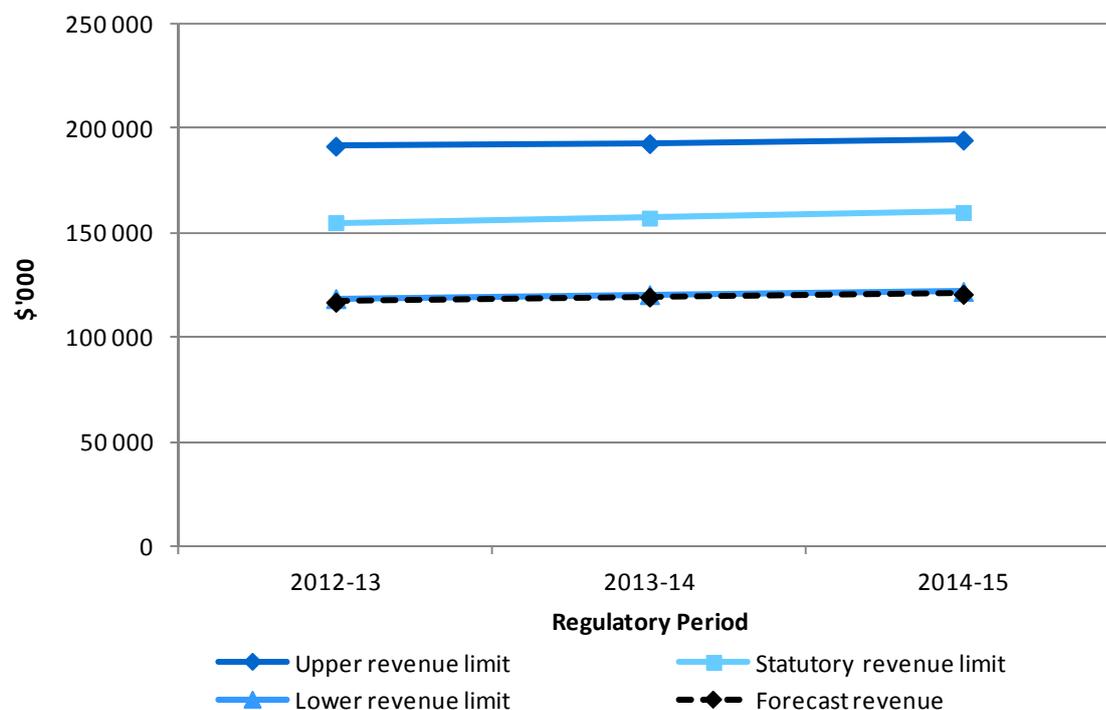
- revenue will not reach the statutory limit by 30 June 2015 and, at \$62.484 million, is well short of the full cost recovery limit of \$95.315 million;
- OM expenditure is forecast to increase by 4.3 per cent over the period;
- capex is expected to decline over the period; and
- NPAT is forecast to increase by 76.7 per cent, dividends are expected to increase by 38 per cent whilst forecast returns to owners are expected to increase by 27 per cent over the period.

It appears that, over the first regulatory period, the impacts of price reform result in significant increases in annual revenue for Cradle Mountain Water. The extent of revenue growth means that Cradle Mountain Water will achieve the lower revenue limit in the second year of the first regulatory period. However, Cradle Mountain Water's relatively high debt levels appear to be restricting its ability to source funds through additional debt during the period. As a possible consequence, Cradle Mountain Water has elected to reduce levels of capex over the period and apply the expected growth in revenue sourced from customers to meet increased OM expenditure and make increased returns to owners.

4.5.4 Revenue assessment – Southern Water

The following chart shows the three calculated revenue limits as well as forecast revenue for Southern Water for each year of the first regulatory period.

Figure 4.3 Southern Water – revenue analysis



In summary:

- revenue is projected to grow at the slowest rate of the three corporations (an increase of three per cent in real terms over the first regulatory period);
- revenue remains just under the sustainable level (i.e. the lower revenue limit);
- revenue will not reach the statutory limit by 30 June 2015 and, at \$120.543 million, is less than two-thirds of the full cost recovery limit of \$194.204 million;
- debt servicing costs are projected to increase by 34 per cent implying that underlying debt is also increasing over the period;
- OM expenditure is forecast to decrease by one per cent over the period;
- capex is expected to increase slightly over the period; and
- NPAT is forecast to increase by 5.9 per cent over the period whilst forecast returns to owners are expected to remain constant at \$14.6 million for each financial year of the first regulatory period.

It appears that, over the first regulatory period, the impacts of price reform result in small increases in annual revenue for Southern Water. The lack of revenue growth means that Southern Water remains in a financially unsustainable position over the period although it is close to achieving the lower revenue limit.

Despite declining dividend payments, returns to owners are forecast to remain constant due to the expected payment of higher income tax equivalents and guarantee fees over the regulatory period. Based on significant increases in its debt servicing costs, Southern Water is also required to utilise debt to fund its capex program.

5 PRICING

This chapter provides an overview of each regulated entity's proposed prices and pricing structures for the first regulatory period and the Economic Regulator's assessment of those pricing proposals.

The chapter covers:

- the structure of regulated water and sewerage services;
- prices for regulated water and sewerage services;
- an assessment of alternative pricing scenarios; and
- the pricing and pricing policies for other services associated with the provision of regulated water and sewerage services.

5.1 Introduction

Prior to the industry reform process, the prices charged by local governments for water and sewerage services varied markedly between municipalities in terms of both the basis for setting prices and the levels of prices. The current structure and level of prices for water and sewerage services are a legacy of those former council arrangements.

One of the key objectives of the reform of the Tasmanian water and sewerage sector was to transition customers to a rational price structure consistent with the principles set out in the Industry Act and the Pricing Regulations and the NWI's pricing principles. The Economic Regulator identified the commencement of this price reform transition process as a priority for the first regulatory period.

Each regulated entity's proposed Price and Service Plan was required to propose price reform arrangements that begin the transition of prices to a structure that meets:

- the pricing principles contained in section 68 of the Industry Act;
- the additional pricing principles set out in the Pricing Regulations; and
- the price reform priorities established by the Economic Regulator for the first Price Determination.

The pricing principles and price reform priorities are discussed in Chapter 1.

In assessing each regulated entity's price proposals, section 15 of the Industry Act requires the Economic Regulator to consider the impact of the rate of change of prices for customers.

5.2 Price reform approach

The requirements for the development and presentation of price reform proposals was spelt out in the Guideline, as well as the Economic Regulator's intended approach to assessing such proposals.

Prices are a product of the nature of the service provided and the cost of those services. The regulated price (tariff) includes both price and service components.

On that basis, the approach adopted first involved the identification of the regulated services to be delivered. This covered the provision of water and the removal of sewage, but also addressed a number of miscellaneous services that are provided by the regulated entities as part of, or ancillary to, the provision of these core services.

Where a different standard or level of service is provided, for example the provision of water that is not drinkable (non-potable), this may lead to the creation of a different customer class, reflecting the costs associated with differing levels of service, and separate prices.

The Industry Act also provides the potential for different prices to apply in different areas (pricing zones) to reflect different costs associated with the provision of services to those areas.

The core services (of water provision and sewage removal) are provided to customers on an ongoing basis and result in the majority of the financial impact upon customers in terms of quarterly accounts. The pricing for these services requires considerable reform to achieve the required pricing objectives. Therefore, in reforming the prices for these services, the Economic Regulator required the regulated entities to propose constraints (caps) on annual price changes. As a basis for comparison, the regulated entities were also required to prepare alternative price constraint proposals. These proposals are assessed later in this Chapter.

The regulated entities also deliver a number of miscellaneous services. These services are usually not provided on an ongoing basis and are driven by demands by customers or developers, e.g. meter testing, connection or connection relocation. The prices for these services should be based on cost recovery. The prices for the majority of miscellaneous services have been stipulated as part of the Price Determination. However, the price for some services will be determined by a pricing policy approved as part of the Price Determination as the price of these services varies depending on the detailed nature of the service provided, e.g. developer charges and service introduction charges.

The Guideline required each regulated entity to propose a regulated price structure as part of its proposed Price and Service Plan, including a tariff (or target tariff) for each regulated service, by customer class and pricing zone, for each financial year of the first regulatory period.

5.3 Structure of regulated services

Table 5.1, Table 5.2 and Table 5.3 provide an overview of the proposed services the regulated entities intend to provide during the first regulatory period, categorised under water services, sewerage services and miscellaneous services, as well as the proposed tariff structure for each service.

Table 5.1 Proposed water services

Type of service	Proposed tariff structure
Water service	Fixed charge - water
	Fixed charge – fire service connection
	Fixed charge – motor home dump points
	Fixed charges – private filling stations
	Fixed charges – portable metered standpipes
	Variable charge – potable water
	Variable charge – non-potable water
	Variable charge – motor home dump points
	Variable charge – water carriers
	Variable charge – private filling stations
	Variable charge – public filling stations
	Variable charge – portable metered standpipes

Table 5.2 Proposed sewerage services

Type of service	Proposed tariff structure
Sewerage charge	Fixed charge
	Fixed charge – motor home dump points
Trade waste charge	Fixed charge
	Variable charge
	Exceedance charge

Table 5.3 Proposed miscellaneous services

Type of service	Proposed tariff structure
Service Charge (vacant land)	Fixed charge – water
	Fixed charge – sewerage
Connection fee	Water
	Sewerage
Disconnection fee	Residential water / sewerage

Type of service	Proposed tariff structure
Water meter fees	Special reads Meter test (on site) Meter test (off site) Meter relocation Meter downsizing
Sundry fees	Service locator fees Right to information requests Inspection costs Pressure and flow testing Section 56ZQ request (a person may request a regulated entity to issue a certificate detailing information about water and sewerage relating to a specific piece of land) Property information plan Restriction charge Backflow prevention management Chargeable works miscellaneous fee
Development assessment service fees	Rezoning Development Application – non subdivision Development Application – subdivision Building and plumbing applications Engineering design approval Certificate of compliance - Building Certificate of compliance - Plumbing Asset creation inspection / data capture Incomplete Works Bond Assessment Final Plan Sealing Section 56W Consent (a consent provided by a regulated entity to allow a person to build a structure or fill land on which an easement exists in favour of the regulated entity or an easement exists for water and sewerage infrastructure)
Developer charges	Determined by pricing policy
Service introduction charges	Determined by pricing policy

5.3.1 Explanation of proposed tariff structure

The following is a high level description of the tariff structure proposed by the regulated entities for each regulated service:

Water charges:

- fixed water tariff – an annual charge for the provision of water via water infrastructure;
- volumetric water tariff – a charge per kilolitre for water usage, split between potable and non potable sources (including motor home dump points);
- fire service connection tariff – an annual charge for the provision of capacity to support fire fighting in private buildings;
- water carriers tariffs – a charge per kilolitre for water taken from water infrastructure by water carriers;
- public and private filling tariffs - a charge per kilolitre for water taken from water infrastructure via public and private filling stations (the private filling tariff also involves an annual fixed charge);
- portable metered standpipes – a charge per kilolitre for water taken from portable metered standpipes and an annual fixed charge; and
- service charge – an annual charge for the ability to connect to a regulated entity’s infrastructure, even though a physical connection may not be in place.

Sewerage charges:

- fixed sewerage tariff – an annual charge for the removal, treatment and disposal of sewage via sewerage infrastructure (including motor home dump points);
- service charge – an annual charge for the ability to connect to a regulated entity’s infrastructure, even though a physical connection may not be in place; and
- trade waste tariffs – annual charges for the removal, treatment and disposal of trade waste via sewerage infrastructure. The charge depends on the category of customer which in turn depends on the type and volume of waste produced. Lower category customers pay a fixed charge whilst the charge for higher category customers is negotiated with a regulated entity and may involve fixed and/or variable charges and reflects the costs of removing, treating and disposing of the trade waste. Exceedance charges may also be levied where trade waste discharge is outside agreed limits.

Miscellaneous charges:

- connection/disconnection charges – cost recovery charges levied for connecting to, or disconnecting from, water or sewerage infrastructure;
- metering charges – cost recovery charges levied for items such as special meter reads, meter testing and meter relocation;
- development services fees – cost recovery charges levied for the assessment of development applications, certificates for certifiable works and post development compliance assessments;
- developer charges – cost recovery charges levied upon developers (either as a charge or via the gifting of water and/or sewerage infrastructure by the developer) to cover the cost of expanding water and/or sewerage infrastructure to support the development or the consumption of excess infrastructure capacity (headworks charges);
- service introduction charge – a temporary additional charge upon particular customers to recover some of the cost of the construction of water and/or sewerage infrastructure to service areas not previously receiving reticulated water and/or sewerage services; and
- miscellaneous fees and charges – cost recovery charges levied for a number of sundry fees such as location of services or pressure and flow testing.

The Economic Regulator considered that the regulated entities' proposed regulated services and proposed tariff structures generally satisfied the definition of a regulated service and are structured in line with the pricing principles.

In particular, the Economic Regulator noted that the charges for the regulated services are structured in a way that results in the implementation of two-part water pricing from the commencement of the first regulatory period.

However, it is noted that the proposed tariff structures contained in each regulated entity's proposed Price and Service Plan only addressed one instance where a limited service is provided (non-potable water). The Economic Regulator is aware that limited services are also provided in instances where:

- minimum water flow rates are below usual standards;
- water supply is subject to higher levels of interruption (involving frequency and/or duration of interruption); and
- customers are connected to Septic Tank Effluent Disposal (STED) schemes, meaning liquid waste is removed through the regulated entity's infrastructure whilst the customer maintains a septic tank which has to be pumped out periodically to remove the solid waste.

The services and tariff structures that are proposed to apply to these limited service customers are discussed in the following section.

5.3.2 Customer classes

Under section 4.6 of the Guideline each regulated entity was required to identify customer classes that reflect the differential cost of providing regulated services to each customer class.

The Guideline also specified that different customer classes are only justifiable where there is a difference in service levels or the cost of supply.

The Guideline required each regulated entity to develop different customer classes reflecting customer service levels or quality of product supplied.

Each regulated entity proposed the adoption of two customer classes, being residential and non-residential. This proposal is not consistent with the requirements of the Guideline, as outlined above, because it does not reflect differing service levels or product quality.

5.3.2.1 *Limited service customers*

As mentioned in the previous section, there are some instances where differing service levels or product quality are provided.

In this regard, the regulated entities proposed the following customer classes:

- full service - customers receiving standard potable water services;
- limited water quality - customers permanently receiving water that does not comply with the Tasmanian Drinking Water Quality Guidelines (non-potable);
- limited water supply - customers receiving a service that is below minimum flow rates, or is an interruptible supply; and
- combined limited water quality and limited water supply.

The Code requires the regulated entities to specify minimum water flow rates to be provided to customers.

In its draft Report, the Economic Regulator proposed that the minimum water flow rates to be delivered to customers under the minimum service standard requirements of the Code be set at the water flow rates which were provided as at 1 July 2009. The Economic Regulator considered this to be appropriate as it will ensure that historical water flow rates are at least maintained. This will also prevent the potential risk of fire protection systems in existing buildings from being compromised through the regulated entities reducing flow rates.

Under this approach a range of minimum water flow rates can be provided to customers and still be consistent with the requirements of the Code. However, when minimum water flow rates are below what is deemed to reflect a standard service, it is considered that the limited water supply customer class should apply for the purposes of pricing.

In terms of setting a proposed flow limit to determine the limited water supply customer class, the Economic Regulator examined arrangements in other jurisdictions, but acknowledges that acceptable minimum flow rates vary according to topography and system design.

The Economic Regulator's draft Report proposed that customers receiving a flow rate of less than 15 litres per minute were to be treated as limited water supply customers.

The regulated entities agreed that the minimum flow rates remain the water flow rates which were provided as at 1 July 2009 (at the time of their commencement of operations) but disagreed with the Regulator's proposal that customers receiving a flow rate of less than 15 litres per minute be treated as 'limited water supply customers' due to the range of factors that impacted on flow rates.

The regulated entities suggested defining 'limited water supply customers' as those customers who:

- are connected to a water main that periodically does not contain water under positive pressure; or
- have a connection designed to provide low or intermittent flow, such as where the customer has been required to install, operate and maintain an individual tank or pump; or
- are connected to a non-reticulation water main that is subject to significant pressure variations due to either –
 - a pumped supply where the low pressure is below 50 kPa and the high pressure is above 500 kPa; or
 - an inlet supply to a trunk reservoir such that when the reservoir inlet valve is open the pressure is below 50 kPa; or
- where the regulated entity determines the supply to be inadequate.

Noting the regulated entities' concerns regarding the proposal to classify 'limited water supply customers' as those who receive a flow rate of less than 15 litres per minute, the Economic Regulator acknowledges that acceptable minimum flow rates can be difficult to determine given the variance in flow rates according to topography, system design and different times of the day or year.

The Economic Regulator has decided, therefore, not to adopt a defined minimum flow rate to classify 'limited water supply customers'.

The Economic Regulator has decided to accept the definition as proposed by the regulated entities including a regulated entity having discretion to 'determine the supply to be inadequate' as any exercise of this discretion is to the customer's benefit in terms of pricing.

In its draft Report, the Economic Regulator also proposed treating customers permanently receiving water that did not comply with the Tasmanian Drinking Water

Quality Guidelines (non-potable) as limited water quality customers. In their submissions on the draft Report, the regulated entities raised concerns about the proposed definition in that, for varying amounts of time, water supplied through systems with permanent boil alerts in place would comply with the Guidelines. This would have the unintended result of these customers not being treated as limited water quality customers.

The regulated entities subsequently proposed defining ‘limited water quality customers’ as customers receiving water from a supply which has a permanent boil water alert in place or where the supply has been declared by the regulated entity to be non-potable. The Economic Regulator supports the regulated entities having the discretion to declare a water supply to be non-potable as any exercise of this discretion is to the customer’s benefit in terms of pricing.

The Economic Regulator has decided to define ‘limited water quality customers’ as customers receiving water from a supply which has a permanent boil water alert in place or where the supply has been declared by the regulated entity to be non-potable.

5.3.2.2 *Septic Tank Effluent Disposal (STED) schemes*

The other instance where a differing service level is provided is in relation to STED schemes. These schemes operate in a number of areas including Granville Harbour, Arthur River, Cowrie Point, Trial Harbour and Colebrook. The issue with these schemes is that the septic tanks are required to be pumped out periodically. If this is at the owner’s expense then the service provided is below that ordinarily provided in a standard sewerage scheme.

In their respective plans, Southern Water and Cradle Mountain Water stated that they intended meeting the cost of pumping out of the tanks once every five years in accordance with the Australian Standard AS1547:2000, “*On-site domestic wastewater management*”. On this basis, customers using STED schemes would receive an equivalent service to those customers with a full standard sewerage service.

However, the regulated entities subsequently became aware that they did not have the necessary authority to access private property to pump out septic tanks as originally proposed.

Due to these access issues, the Economic Regulator instead requires each regulated entity to provide a discounted price for sewerage services of 0.9ET for STED customers on the basis that an annual ten per cent discount approximates the cost to the owner of having their septic tank pumped out every five years.

5.3.2.3 *Proposed customer classes*

Based on the discussion in section 5.3.2.1 above, the Economic Regulator has decided that each regulated entity is to adopt the following customer classes:

- *full service customers;*

- *limited water quality - customers receiving water from a supply which has a permanent boil water alert in place or customers receiving water from a supply the regulated entity has declared to be non-potable;*
- *limited water supply - customers that:*
 - *are connected to a water main that periodically does not contain water under positive pressure; or*
 - *have a connection designed to provide low or intermittent flow, such as where the customer has been required to install, operation and maintain an individual tank or pump; or*
 - *are connected to a non-reticulation water main that is subject to significant pressure variations due to either –*
 - *a pumped supply where the low pressure is below 50 kPa and the high pressure is above 500 kPa; or*
 - *an inlet supply to a trunk reservoir such that when the reservoir inlet valve is open the pressure is below 50 kPa; or*
 - *receive a supply the regulated entity determines to be inadequate; and*
- *combined limited water quality and limited water supply.*

5.4 Prices for water and sewerage services

The Guideline required each regulated entity to propose a regulated tariff structure as part of its Price and Service Plan, including a tariff (or target tariff) for each regulated service, by customer class and pricing zone, for each financial year of the first regulatory period.

The Guideline specified that the structure of proposed tariffs contained in a proposed price and service plan must be consistent with the pricing principles under the Industry Act and Pricing Regulations, or transitioning to achieving those principles, in line with the priority price reform objectives (discussed in Chapter 1). This included the requirement for two-part pricing to apply to all customers from 1 July 2012 resulting in the removal of free water allowances.

5.4.1 Pricing zones

A pricing zone is an area where the prices charged to customers are the same, that is, the same ‘bundle’ of prices applies to each customer class. The pricing zone could cover the entire area serviced by a regulated entity (which would equate to “postage stamp pricing” for the customers of that regulated entity) or there could be a number of zones within each region (nodal pricing).

The Pricing Regulations prescribed that pricing zones may be included in a proposed price and service plan where:

- there are significant differences in the costs of providing regulated services within that region; and
- even if there are significant differences in the cost of providing services across the region, different pricing zones may still not be required if the Economic Regulator considers the cost of implementing such zones outweighs the benefits.

The Guideline required each regulated entity, in its proposed Price and Service Plan, to specify whether there are material differences in the costs of providing regulated services across its respective region.

Where material cost differences are identified, or there is insufficient data to assess cost variations, and the regulated entity proposes introducing pricing zones, the regulated entity must justify why the costs of implementing pricing zones outweigh the benefits.

Pricing zones must be clearly identified and justified on the basis of the cost differential involved in providing the regulated service.

In their proposed Price and Service Plans, each regulated entity proposed to transition the myriad of pricing structures inherited from council towards a consistent set of tariffs for each region. This is known as postage stamp pricing.

In their proposed Price and Service Plans, both Southern Water and Ben Lomond Water proposed the introduction of postage stamp pricing rather than zonal or nodal pricing. Southern Water and Ben Lomond Water explained that postage stamp pricing:

- would result in all like customers across the region paying the same fixed amounts for like services;
- was in line with the preferences expressed by customers;
- would avoid significant additional costs that would be incurred in implementing nodal pricing (due to additional data requirements); and
- that the additional data requirements required for nodal pricing means that its implementation for the first regulatory period is unlikely to be practically achievable.

Cradle Mountain Water's proposed Price and Service Plan also stated that its ultimate intention is to have a single pricing zone for all areas currently serviced by regulated water and/or sewerage services (postage stamp pricing).

However, Cradle Mountain Water's proposed Price and Service Plan went on to state that, due to the complexity of the former municipal area pricing arrangements and its associated inheritance of free water allowances in six of the nine former municipal areas, the establishment of postage stamp pricing is not possible initially. Instead, Cradle Mountain Water proposed establishing nine tariff transition zones each one correlating to the council areas in its region, with tariffs in each zone

transitioning from different levels, but towards tariff levels that are consistent across the northwest region.

The Economic Regulator notes that Cradle Mountain Water's proposed tariff transition zones do not meet the definition of a pricing zone in Regulation 6 of the Pricing Regulations as these zones do not relate to ultimately achieving tariffs that are different due to there being identified differences in the cost of service delivery across these zones.

It is accepted that nodal pricing would involve additional costs and is likely to not be practically achievable for the first regulatory period. Further, it is considered that locational price signals are not likely to have a significant impact on existing customers and that the developer charges arrangements proposed by the regulated entities will provide locational price signals for new developments.

The Economic Regulator requires each regulated entity to adopt one pricing zone, covering the region that it serves, consistent with the proposals made by the regulated entities.

The Economic Regulator also requires Cradle Mountain Water to amend its Price and Service Plan so that it does not refer to its proposed "tariff transition zones" as "pricing zones".

5.4.2 Proposed price reform approach

The three regulated entities have all noted that the pricing arrangements they inherited from councils involve significant differences in the levels of prices and generally involve an under-recovery of revenue. Therefore, it is not possible to move customers directly to fully cost reflective charges without significant price shocks for some customers. Further, the extent of variations in current price levels means that the regulated entities are unable to transition customers to uniform tariffs immediately without significant price shocks for some customers (through the adoption of higher uniform tariffs) or through a significant revenue loss (through the adoption of lower uniform tariffs).

Therefore, the regulated entities proposed an approach that commences the transition to uniform tariffs whilst managing the impact upon customers. This price reform approach involves transitioning customers to identified target tariffs for water and sewerage charges and using caps on annual increases in prices. Under this approach:

- customers below the target tariff will have their prices increased by the maximum amount permitted under the price caps;
- customers on the target tariff will have their prices increased by the amount that the target tariff is projected to increase by each year (which is less than amount permitted under the price caps); and
- customers above the target tariff will have their prices frozen (meaning maintained at current levels) – although Southern Water and Cradle Mountain Water proposed that such customer have their prices

reduced by five per cent in the final year of the first regulatory period (2014-15), Ben Lomond Water proposed considering such a reduction at that time depending on its financial position.

The target tariffs have been determined based on judgments by the regulated entities on a transition path that commences the movement of customers towards uniform cost reflective tariffs. The level of target tariffs differ across the regulated entities due to differences in pricing arrangements inherited from councils and reform priorities in the context of issues specific to each regulated entity. For example, Cradle Mountain Water has adopted target tariffs that transition customer fixed charges to a higher level to achieve a greater degree of revenue certainty, whereas Southern Water has prioritised transitioning customers to uniform cost reflective water usage charges in conjunction with the rollout of water meters in the southern region.

The levels of the proposed target tariffs and price constraints are discussed in the following sections.

5.4.3 Fixed water charges – for standard services

The regulated entities proposed target tariffs for fixed water charges for each year of the first regulatory period.

Fixed charges reflect a regulated entity’s fixed costs of providing water services to a property. These are costs that are independent of the amount of water supplied.

Each regulated entity proposed that the fixed charge be based on the size of the property’s water connection. A larger connection size means a larger potential demand on the system and, therefore, a higher fixed charge.

Table 5.4 shows the fixed charges each regulated entity proposed levying for water services for each year of the regulatory period for a 20mm connection.

Table 5.4 Fixed water target tariffs in nominal dollars (based on a standard 20mm connection size)

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	286.00	303.00	322.00
Cradle Mountain Water	384.49	407.56	432.02
Cradle Mountain Water (new customer connections)	410.40	421.07	432.02
Southern Water	272.32	288.65	305.97

The regulated entities proposed to calculate fixed water charges and, therefore, target tariffs for customers with larger than 20mm connections based on the application of a multiplier to the standard minimum fixed charge. The multiplier reflects the extra volume of water the larger connection can draw from the water infrastructure compared to the standard connection. The multipliers used to determine the fixed water charges for all pipe connection sizes are outlined in Table 5.5 and are also reproduced in the attached Determinations (see Table 3 in Appendix 1 for each regulated entity).

Table 5.5 Multipliers for water connection pipe sizes

Connection size (mm)	Multiplier
20	1.00
25	1.56
30	2.25
32	2.56
40	4.00
50	6.25
65	10.56
75	14.06
80	16.00
100	25.00
150	56.25
200	100.00

For example, Southern Water's proposed fixed charge for 2012-13 for a 20mm connection is \$272.32, whereas the proposed fixed charge for a 200mm connection is \$27 232 (i.e. multiplier of 100). The detailed fixed water target tariffs are included in the attached Price Determinations (Appendix 1).

Each regulated entity proposed increasing its fixed water target tariffs by six per cent per annum.

The Economic Regulator has decided that basing fixed water target tariffs on connection sizes is appropriate as it reflects potential water demand upon regulated entities' water infrastructure, which is consistent with the requirements of the statutory pricing principles and arrangements in other jurisdictions.

The Economic Regulator has decided to approve the fixed water target tariffs as reflected in Table 5.4.

5.4.4 Fixed sewerage charges – for standard services

The regulated entities proposed fixed sewerage charges based on the equivalent tenement (ET) methodology.

An ET is a classification used in the Water Services Association of Australia Sewer Code to measure the demand a property will place on infrastructure; for example, a single residential property is rated as one standard ET whilst a hotel may be rated as 50 ETs.

Table 5.6 shows the fixed sewerage target tariffs proposed by each regulated entity for each year of the first regulatory period.

Table 5.6 Fixed sewerage target tariffs in nominal dollars (based on one ET/100mm connection)

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	477.00	506.00	536.00
Cradle Mountain Water	595.97	631.72	669.63
Cradle Mountain Water (new customer connections)	636.12	652.66	669.63
Southern Water	488.71	518.03	549.11

The above target tariffs are increased proportionately based on the assessed ETs that apply to each customer. For instance, if a customer of Ben Lomond Water was assessed as having a 10 ET connection then its fixed sewerage charge in 2012-13 would be \$4 770 (being \$477 multiplied by 10).

Each regulated entity proposed increasing its fixed sewerage target tariffs by six per cent per annum.

The Economic Regulator considers that basing fixed sewerage target tariffs on ETs is appropriate as it reflects potential demand upon each regulated entity's sewerage infrastructure, which is consistent with the requirements of the statutory pricing principles.

The Economic Regulator has decided to approve the fixed sewerage target tariffs as reflected in Table 5.6.

There is an issue with the calculation of ETs and its interaction with proposed price constraints. This is discussed further in section 5.4.11.

5.4.5 Variable water target tariffs – for standard services

Under two-part pricing, and applying the user pays principle, variable charges are imposed based on the volume of water a customer uses.

To be consistent with the statutory pricing principles it is considered that variable charges should only be applied to metered water usage. In the lead up to the commencement of the first regulatory period it is considered that the regulated entities have had sufficient time to install water meters in areas where metering was not present prior to the reform process.

The Economic Regulator has decided that a regulated entity is unable to recover revenue through variable charges until such time as a water meter is installed at a property. In these circumstances the customer will, however, be subject to the same fixed charge that would otherwise apply if a water meter was installed.

The pricing regulations specify that the variable charge levied on a customer must at least cover the cost of delivering the water to the customer's property. The Pricing Regulations also allow a regulated entity to recover more than the cost of delivering water to, or removing sewage from, a property in certain circumstances. Where a regulated entity proposes to recover fixed costs through variable charges, the

Guideline requires it to identify and justify the quantum of fixed costs being recovered through variable charges.

This section only addresses proposed tariffs for potable water services. Proposals in relation to usage charges for non-potable water are discussed further in section 5.4.15 in relation to charges for limited services.

In their proposed Price and Service Plans, the regulated entities proposed similar variable water usage rates of around \$0.90/KL. The proposed rates were not, however, consistent between the three regulated entities.

In their submissions on the draft Report, Ben Lomond Water and Cradle Mountain Water proposed adopting the same variable water rates as originally proposed by Southern Water.

The regulated entities proposed increasing the variable target tariffs by varying amounts per annum, to reflect estimated inflation over the regulatory period.

The Economic Regulator requires each regulated entity to adopt water target tariffs as reflected in Table 5.7.

For the purposes of consistency with the treatment of other fees discussed in this Report, the Economic Regulator has decided that the variable water target tariffs be increased by 2.6 per cent per annum.

Table 5.7 Variable water target tariffs (nominal dollars)

	2012-13 (\$ / kL)	2013-14 (\$ / kL)	2014-15 (\$ / kL)
Ben Lomond Water	0.9000	0.9234	0.9474
Cradle Mountain Water	0.9000	0.9234	0.9474
Southern Water	0.9000	0.9234	0.9474

5.4.5.1 *Extent of fixed costs recovered through variable charges*

The regulated entities have noted that the variable target tariffs proposed are above the level of short run marginal costs (SRMC) associated with supplying potable water. The SRMC of potable water supply, as provided by each regulated entity, is shown in the following table for each year of the first regulatory period.

Table 5.8 SRMC of supplying water by year for each regulated entity (nominal dollars)

	Estimated SRMC for 2012-13 (\$ / kL)	Estimated SRMC for 2013-14 (\$ / kL)	Estimated SRMC for 2014-15 (\$ / kL)
Ben Lomond Water	0.3700	0.3811	0.3925
Cradle Mountain Water	0.4300	0.4400	0.4500
Southern Water	0.2996	0.2869	0.2899

Therefore, each regulated entity proposed recovering a proportion of fixed costs through variable water charges. The Economic Regulator’s calculation of total fixed costs recovered through variable water charges for each regulated entity for each year of the first regulatory period is shown in Table 5.9.

Table 5.9 Estimates of fixed costs recovered through variable water charges in nominal dollars

	2012-13 (\$'000s)	2013-14 (\$'000s)	2014-15 (\$'000s)
Ben Lomond Water	6 756	6 913	7 074
Cradle Mountain Water	2 650	3 003	4 565
Southern Water	19 252	21 688	22 560

Table 5.10 shows the amounts in Table 5.9 on a per customer basis for each regulated entity.

Table 5.10 Estimates of fixed costs recovered through variable water charges per customer in nominal dollars

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	116.49	119.19	121.96
Cradle Mountain Water	72.49	82.16	124.89
Southern Water	228.45	257.36	267.71

In their proposed Price and Service Plans, the regulated entities justified the recovery of a portion of fixed costs through a higher variable charge by claiming that higher variable costs (relative to, or instead of, higher fixed costs) give customers control over their bill because they can adjust their water usage. However, in the draft Report, the Economic Regulator noted that this was not an acceptable justification for setting water usage charges above cost.

Noting the instances where variable charges can be set above cost as stipulated in Regulation 16 of the Pricing Regulations, the Economic Regulator, in its draft Report, considered it appropriate for the regulated entities to set variable charges above costs to attempt to:

- moderate demand;
- enable them to defer demand driven capital investment; and
- increase their capacity to undertake investment in regulatory compliance improvement.

Given the extent of capital investment required by the regulated entities to achieve regulatory compliance, the Economic Regulator considers it appropriate, as part of a longer term transition to cost reflective pricing, for the regulated entities to set variable charges above costs to attempt to moderate demand and enable them to defer demand driven capital investment, thereby allowing regulatory compliance improvement investment to occur during the first regulatory period.

5.4.5.2 Comparison of variable charges

The extent of fixed costs recovered through the variable charge is dependent on the level of the variable charge proposed and is largely a matter of judgement. This section attempts to assess that judgement by comparing the variable target tariffs proposed by the regulated entities against variable charges levied by mainland service providers. Charges are compared for the same service providers selected for the OM expenditure benchmarking in Chapter 4.

Table 5.11 Interjurisdictional comparison of variable water charges

Service Provider	Note	(\$ / kL)	Usage (kL)	Period
Ben Lomond Water	1	0.9000	All usage	2012-13
Cradle Mountain Water	1	0.9000	All usage	2012-13
Southern Water	1	0.9000	All usage	2012-13
Goulburn Valley Water	2	0.9560	None stated	2011-12
Wannon Water	3	1.6043	0 - 438	2011-12
Barwon Water	4	1.9817	All usage	2011-12
North East Water	5	2.1987	All usage	2011-12

Notes:

- (1) Based on the proposed variable charge for 2012-13.
- (2) http://www.gvwater.vic.gov.au/communications/publications/images/Tariff_Schedule_2011-12.pdf.
- (3) http://www.wannonwater.com.au/images/pdf/customer/feescharges/schedule_of_charges_2011-12.pdf
- (4) <http://www.barwonwater.vic.gov.au/residential/bill/fees>
- (5) <http://www.nerwa.vic.gov.au/customer/tariffs.asp#1a>

As shown in Table 5.11, the variable target tariffs proposed by the Tasmanian regulated entities are in the low-range of the variable charges imposed by comparable mainland providers.

5.4.5.3 Summary

As discussed, it is considered that the regulated entities have a valid reason to set variable charges above cost. However, the extent to which this occurs is a matter of judgement.

It should be noted that setting variable charges at levels above cost results in large water users (such as industrial customers, hospitals and schools) subsidising low use customers (residences and office blocks). This has the effect of creating a cross subsidy and is inconsistent with the pricing principles in relation to cost reflective charging.

The Economic Regulator has decided that setting the variable charge at around \$0.90/kL represents a fair balance between sending an appropriate price signal to customers so as they can choose to modify their water consumption and enable demand driven investment to be deferred, thereby allowing regulatory compliance improvement capital expenditure to be prioritised over the first regulatory period.

5.4.6 Fixed water charge – fire services

Commercial and industrial customers in particular may have a water service provided to their property to support a sprinkler system or hose reel in the event of fire.

Fire services are not metered connections and are not often called upon. However, the need for the service requires each regulated entity to build capacity into its network to meet peak supply requirements.

As for standard water charges, the regulated entities proposed levying a charge based on the connection size. However, given this service is used infrequently, the regulated entities also proposed levying a lesser charge than that applying to an equivalent sized domestic connection. The regulated entities have, therefore, proposed charging 25 per cent of the fixed water target tariff for fire services e.g. a 40mm fire service would be charged at the same target tariff rate as a standard 20mm metered water service, which is one quarter of the tariff applying to a 40mm water connection.

The Economic Regulator considers it appropriate to reduce the fixed charge for fire services in recognition of the fact that these services are rarely used and the demand on the network is, therefore, less than the demands placed on the network by standard water connections.

The Economic Regulator requires each regulated entity to apply 0.25 of the fixed water target tariff for fire services.

The following process will be used to remove fire service charges from existing fixed water charges:

- reducing the current fixed water charge by the applicable fire service target tariff; and
- if the current fixed water charges do not allow the full fire service target tariff to be split out, fixed water and fire service charges will be increased by the greater of [(\$50 x CSUR) or 10 per cent].

5.4.7 Proposed price constraints

As discussed, the regulated entities stated that moving all customers to the target tariffs immediately would result in very significant price shocks for some customers, due to the extent of different prices and price structures inherited from councils. The Economic Regulator also noted that it is required under the Industry Act to take account of the impact of price increases upon customers.

Therefore, the regulated entities proposed constraints on annual price increases to manage the transition of customers up to the target tariffs. Each regulated entity proposed a price constraint arrangement where, for those customers below the relevant target tariff, prices will increase by the greater of 10 per cent or \$50 per service per annum. Whilst these price constraints apply uniformly to all customers in terms of variable charges, the maximum dollar increases for fixed

charges depend upon the connection size for water target tariffs and on the number of ETs for sewerage target tariffs. For example, a customer with a 50mm water connection will face a maximum price increase of \$312.50 (being \$50 multiplied by 6.25, which is the connection size ratio applying to 50mm connections) or 10 per cent. Similarly, a customer with a four ET sewerage connection will face a maximum price increase of \$200 or 10 per cent per annum.

Customers above the target tariff will have their prices frozen for the first two years of the regulatory period at 2011-12 levels. Southern Water and Cradle Mountain Water proposed that such customers will have their prices reduced by five per cent in the final year of the first regulatory period (2014-15). Ben Lomond Water proposed considering such a reduction at that time depending on its financial position.

The Economic Regulator supports the application of price constraints to manage annual price increases for customers. However, it is recognised that the setting of the level of price constraints is largely a matter of judgement. In assessing the price constraint arrangements, the Economic Regulator compared the preferred price constraints against alternative scenarios. This analysis is addressed in the following section.

5.4.8 Assessment of alternative price constraints

In developing proposed price constraint arrangements, the Economic Regulator considered that regulated entities were best placed to develop models to support pricing proposals and assess customer impacts as they hold detailed customer and usage information.

As such, the regulated entities were required to propose the structure and quantum of preferred price constraints on annual price movements, as well as alternative price constraint proposals to enable stakeholders and the Economic Regulator to assess the impact of proposed price constraints on price changes.

In assessing the price proposals of each regulated entity, the Economic Regulator considered the structure and quantum of both the preferred and alternative price constraint proposals, taking into consideration each regulated entity's ability to achieve price reform in a way that manages the impact of the rate of change of prices for customers whilst also addressing competing needs such as improving regulatory compliance and improving financial sustainability.

The criteria by which the preferred and alternative price constraint scenarios were assessed include:

- the financial performance of the regulated entity (in terms of sustainability and ability to fund capital expenditure);
- the extent to which the impacts of price increases upon customers are managed; and

- the ability to achieve price reform consistent with the price reform priorities for the first regulatory period as discussed in Chapter 1, i.e. achieving tariff reform.

Financial performance was assessed by comparing transitional revenue paths resulting from the alternative price constraints scenarios against the three revenue limits identified in Chapter 4.

The impacts upon customers and the ability to achieve tariff reform under alternative price constraint scenarios was also assessed by examining the percentage of each regulated entity’s customers whose tariffs are on the target tariffs for each year of the regulatory period (for fixed water and sewerage target tariffs and variable water target tariffs).

Theoretically, adopting different price constraint scenarios would allow a regulated entity to undertake differing levels of capital expenditure. However, in practice, the ability of a regulated entity to improve regulatory compliance through additional capital expenditure is limited as much by the physical and technical ability of the regulated entity to carry out the work as by the availability of funds. Further any changes in proposed capital expenditure would need to be renegotiated with industry regulators. For this reason the Economic Regulator did not require each regulated entity to provide alternative capital investment figures when proposing alternative price constraints scenarios.

In addition to the preferred price constraint arrangement proposed by the regulated entities, the following alternative price constraint scenarios were also identified:

- lower price constraint scenario - where prices will increase by the greater of five per cent or \$25 per service per annum; and
- upper price constraint scenario - where prices will increase by the greater of 15 per cent or \$75 per service per annum.

The Economic Regulator’s assessment of the results of the preferred and alternative price constraint scenarios is addressed in the following sections for each regulated entity.

5.4.8.1 Assessment of price constraint scenarios - Ben Lomond Water

The ability to achieve tariff reform (as measured by the percentage of customers on the target tariff) under the preferred and alternative price constraint scenarios is shown in the table below for Ben Lomond Water for each year of the regulatory period.

Table 5.12 Percentage of customers on target tariffs under preferred and alternative price constraint scenarios

		2012-13 (%)	2013-14 (%)	2014-15 (%)
Lower	Water - fixed charge	37.7	40.2	57.8
	Water - variable charge	7.9	7.9	77.8
	Sewerage	3.6	4.1	7.2

		2012-13 (%)	2013-14 (%)	2014-15 (%)
Preferred	Water - fixed charge	65.8	73.8	82.8
	Water - variable charge	75.7	77.2	79.5
	Sewerage	8.6	10.9	18.1
Upper	Water - fixed charge	67.3	77.7	87.7
	Water - variable charge	77.2	79.5	81.3
	Sewerage	11.1	21.3	83.2

By 2014-15, under the preferred price constraint scenario, Ben Lomond Water expects that 82.8 per cent of its customers will be on the fixed water target tariff, 79.5 per cent will be on the variable water target tariff and 18.1 per cent will be on the sewerage target tariff.

However for the same year, under the lower price constraint scenario, the percentage of customers on the fixed water target tariff falls to 57.8 per cent, the percentage on the variable water target tariff drops to 77.8 per cent and the percentage on the sewerage target tariff reduces to 7.2 per cent. This highlights that the adoption of the lower price constraint scenario will prevent Ben Lomond Water from achieving tariff reform relative to the preferred scenario.

For 2014-15, under the upper price constraint scenario, the percentage of customers on the fixed water target tariff increases to 87.7 per cent, the percentage on the variable water target tariff rises to 81.3 per cent and the percentage on the sewerage target tariff increases to 83.2 per cent. Therefore, adopting the upper price constraint scenario will improve the extent of tariff reform achieved by Ben Lomond Water relative to the preferred scenario, particularly in relation to sewerage charges. However, the adoption of the upper price constraint scenario by Ben Lomond Water would result in larger maximum price increases for some of its customers.

In addition to impacts on customers, the Economic Regulator also assessed the impacts of the preferred and alternative price constraint scenarios on the financial performance of each regulated entity. This was done by calculating transitional revenues for each scenario and comparing them against the revenue limits calculated in Chapter 4.

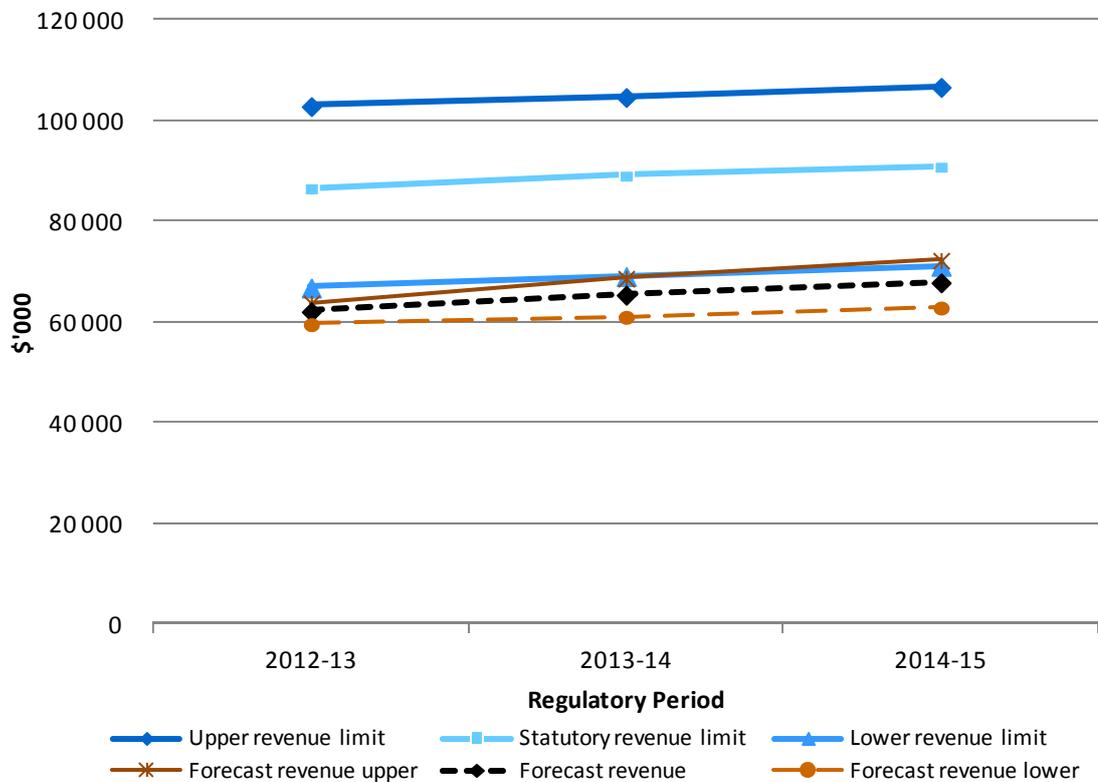
The transitional revenues under the preferred and alternative price constraint scenarios are shown in the following table for Ben Lomond Water for each year of the regulatory period.

Table 5.13 Ben Lomond Water – revenue from price constraint scenarios in real dollars

	2012-13 (\$'000s)	2013-14 (\$'000s)	2014-15 (\$'000s)
Scenario analysis – forecast revenue lower	59 629	61 079	62 918
Forecast revenue	62 162	65 473	67 926
Scenario analysis – forecast revenue upper	63 859	68 741	72 328

The above transitional revenues for Ben Lomond Water are shown in Figure 5.1 compared to the lower, statutory and upper revenue limits calculated in Chapter 4.

Figure 5.1 Ben Lomond Water - comparison of alternative price constraint revenue



Under the lower price constraint scenario, Ben Lomond Water's forecast revenue falls substantially short of the lower revenue limit (the sustainability limit) for each year of the regulatory period and does not appear to be trending towards that limit.

Ben Lomond Water's forecast revenue from applying the upper price constraint scenario reaches the lower revenue limit in 2013-14 and exceeds that limit in 2014-15.

5.4.8.2 Assessment of price constraint scenarios – Cradle Mountain Water

The ability to achieve tariff reform (as measured by the percentage of customers on the target tariff) under the preferred and alternative price constraint scenarios is shown in the table below for Cradle Mountain Water for each year of the regulatory period.

Table 5.14 Percentage of customers on target tariffs under preferred and alternative price constraint scenarios

		2012-13 (%)	2013-14 (%)	2014-15 (%)
Lower	Water - fixed charge	43.5	45.8	45.0
	Water - variable charge	0.0	0.0	0.0
	Sewerage	1.6	1.1	0.9
Preferred	Water - fixed charge	48.7	49.0	87.9
	Water - variable charge	6.3	9.8	12.7
	Sewerage	2.4	4.1	5.5
Upper	Water - fixed charge	49.3	89.4	92.2
	Water - variable charge	7.1	45.1	79.5
	Sewerage	3.1	6.2	11.5

By 2014-15, under the preferred price constraint scenario, Cradle Mountain Water expects that 87.9 per cent of its customers will be on the fixed water target tariff, 12.7 per cent will be on the variable water target tariff and 5.5 per cent will be on the sewerage target tariff.

However for the same year, under the lower price constraint scenario, the percentage of customers on the fixed water target tariff falls to 45 per cent, the percentage on the variable water target tariff drops to nil and the percentage on the sewerage target tariff reduces to just 0.9 per cent. This highlights that the adoption of the lower price constraint scenario will prevent Cradle Mountain Water from achieving tariff reform relative to the preferred scenario.

For 2014-15, under the upper price constraint scenario, the percentage of customers on the fixed water target tariff increases to 92.2 per cent, the percentage on the variable water target tariff rises to 79.5 per cent and the percentage on the sewerage target tariff increases to 11.5 per cent. Therefore, adopting the upper price constraint scenario will improve the extent of tariff reform achieved by Cradle Mountain Water relative to the preferred scenario, particularly in relation to variable charges. However, the adoption of the upper price constraint scenario by Cradle Mountain Water would result in larger maximum price increases for some of its customers.

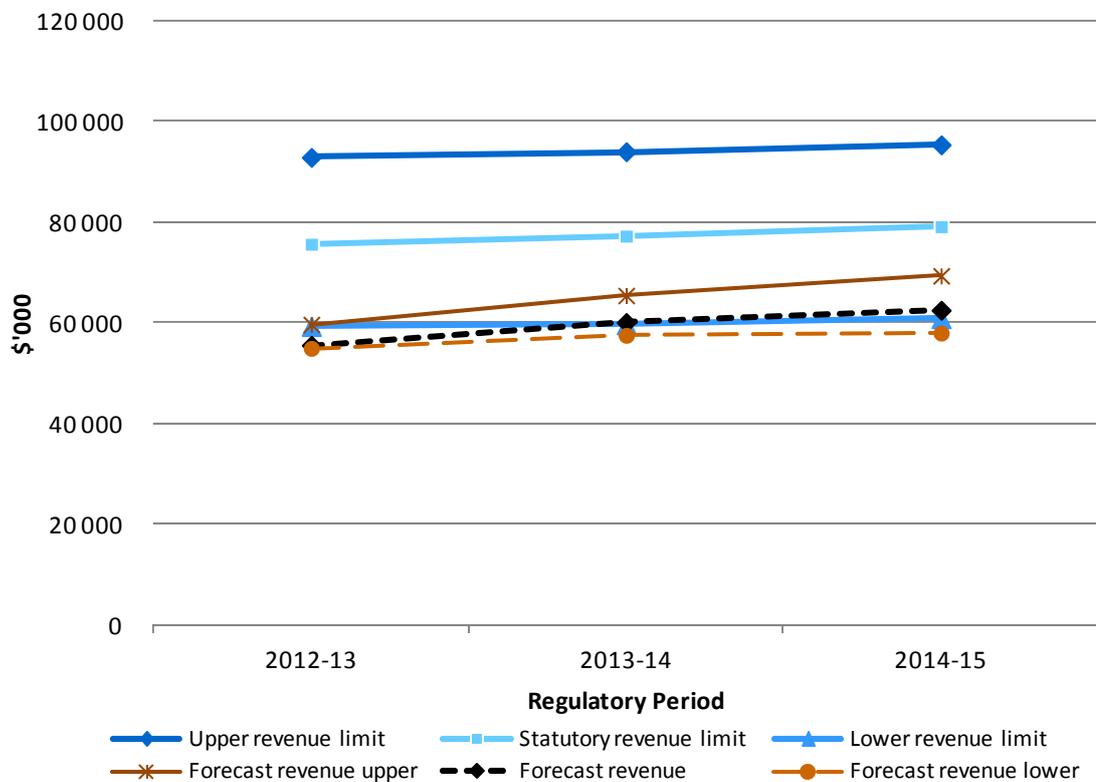
The transitional revenues under the preferred and alternative price constraint scenarios are shown in the following table for Cradle Mountain Water for each year of the regulatory period.

Table 5.15 Cradle Mountain Water - revenue from price constraint scenarios in real dollars

	2012-13 (\$'000s)	2013-14 (\$'000s)	2014-15 (\$'000s)
Scenario analysis – forecast revenue lower	54 926	57 505	57 950
Forecast revenue	55 540	60 069	62 484
Scenario analysis – forecast revenue upper	59 653	65 403	69 311

The above transitional revenues for Cradle Mountain Water are shown in Figure 5.2 compared to the lower, statutory and upper revenue limits calculated in Chapter 4.

Figure 5.2 Cradle Mountain Water - comparison of alternative price constraint revenue



Under the lower price constraint scenario, Cradle Mountain Water’s forecast revenue remains under the lower revenue limit for the entire regulatory period and is not trending towards the sustainability limit.

Cradle Mountain Water’s forecast revenue from applying the upper price constraint scenario reaches a financially sustainable level in 2012-13 and maintains that position throughout the regulatory period and is trending towards the statutory revenue limit.

5.4.8.3 Assessment of price constraint proposal – Southern Water

The ability to achieve tariff reform (as measured by the percentage of customers on the target tariff) under the preferred and alternative price constraint scenarios is shown in the table below for Southern Water for each year of the regulatory period.

Table 5.16 Percentage of customers on target tariffs under preferred and alternative price constraint scenarios

		2012-13 (%)	2013-14 (%)	2014-15 (%)
Lower	Water - fixed charge	22.9	26.3	34.8
	Water - variable charge	87.9	88.0	90.8
	Sewerage	1.6	6.6	8.7
Preferred	Water - fixed charge	31.6	39.5	68.4
	Water - variable charge	87.9	97.2	100.0
	Sewerage	31.8	42.4	47.3
Upper	Water - fixed charge	35.7	63.2	76.8
	Water - variable charge	97.2	97.2	100.0
	Sewerage	38.8	52.8	63.4

By 2014-15, under the preferred price constraint scenario, Southern Water expects that 68.4 per cent of its customers will be on the fixed water target tariff, all customers will be on the variable water target tariff and 47.3 per cent will be on the sewerage target tariff.

However for the same year, under the lower price constraint scenario, the percentage of customers on the fixed water target tariff falls to 34.8 per cent, the percentage on the variable water target tariff drops to 90.8 per cent and the percentage on the sewerage target tariff reduces to 8.7 per cent. This highlights that the adoption of the lower price constraint scenario will prevent Southern Water from achieving tariff reform relative to the preferred scenario.

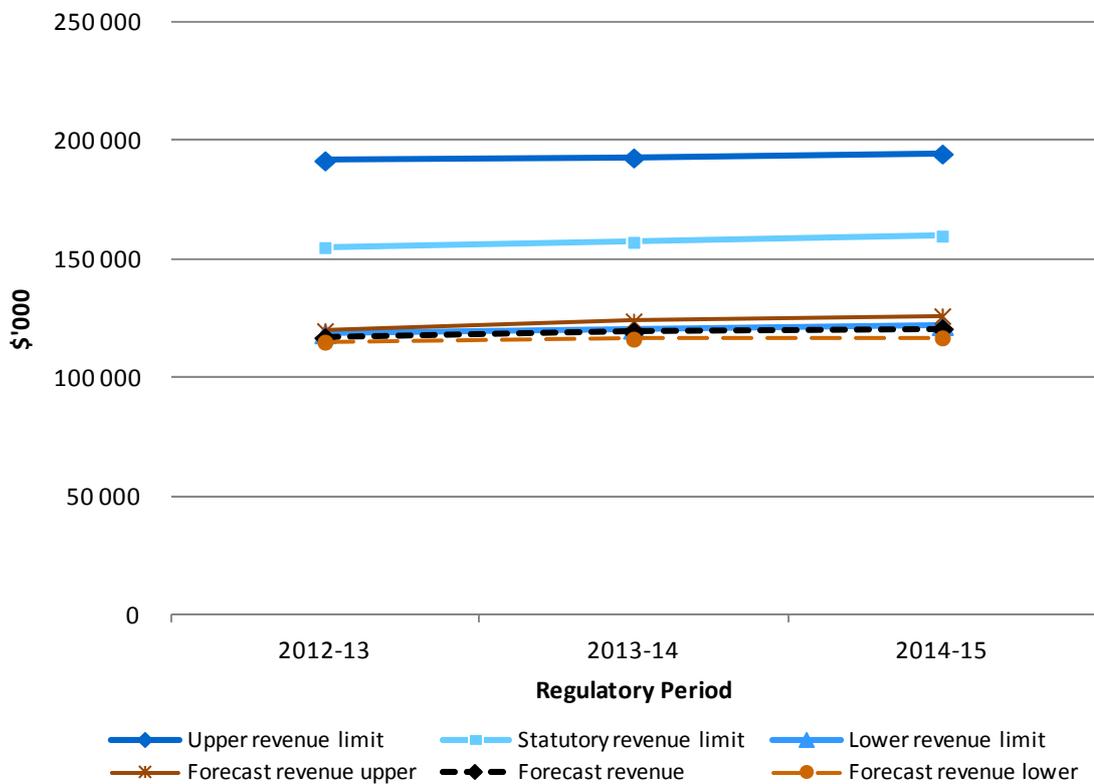
For 2014-15, under the upper price constraint scenario, the percentage of customers on the fixed water target tariff increases to 76.8 per cent, all customers will be on the variable water target tariff and the percentage on the sewerage target tariff increases to 63.4 per cent. Therefore, adopting the upper price constraint scenario will improve the extent of tariff reform achieved by Southern Water relative to the preferred scenario although not in relation to variable charges with all customers on the target tariff under both the preferred and upper scenarios. However, the adoption of the upper price constraint scenario by Southern Water would result in larger maximum price increases for some of its customers.

The transitional revenues under the preferred and alternative price constraint scenarios are shown in the table for Southern Water for each year of the regulatory period.

Table 5.17 Southern Water - revenue from price constraint scenarios in real dollars

	2012-13 (\$'000s)	2013-14 (\$'000s)	2014-15 (\$'000s)
Scenario analysis – forecast revenue lower	114 955	116 211	116 761
Forecast revenue	116 781	119 285	120 543
Scenario analysis – forecast revenue upper	119 698	123 784	125 950

Figure 5.3 Southern Water – comparison of alternative price constraint revenue



Under the lower price constraint scenario, Southern Water’s forecast revenue is slightly under the level required to achieve financial sustainability for each year of the regulatory period. This is the same result as under the preferred scenario but expected revenue under the lower scenario is less.

Southern Water’s forecast revenue from applying the upper price constraint scenario reaches a financially sustainable level in 2012-13 and maintains that position throughout the regulatory period.

5.4.8.4 Assessment of price constraint proposal - summary

Under each lower price constraint scenario, the Economic Regulator considered that:

- there will be less of an impact upon customers in terms of price increases;

- significant tariff reform will not be achieved (this is largely due to the target tariffs increasing at a rate greater than the lower scenario constraints on price increases);
- the current unsustainable financial position facing the regulated entities will not be improved; and
- will result in a lower level of transitional revenue which:
 - is likely to reduce profitability, which will reduce the capacity to pay dividends;
 - may reduce the ability to fund capital expenditure, which will require increased debt or a lower level of capital investment to be renegotiated with industry regulators.

The Economic Regulator considered that adoption of the upper price constraint scenario for each regulated entity would result in:

- larger maximum price increases for customers;
- all three regulated entities achieving financial sustainability by the end of the first regulatory period;
- improvements in the extent of tariff reform relative to the preferred price constraint scenario particularly with respect to fixed charges for Ben Lomond Water and variable charges for Cradle Mountain Water;
- increased profits and increased capacity to pay dividends to council owners; and
- a reduced need for debt funding or a potential increase in capital expenditure (but such a potential increase in capital expenditure may be constrained by the practical capacity to actually do the work).

The Economic Regulator also considered that adopting the lower price constraint scenario would be unlikely to achieve the desired price reform or address the regulated entities' current financial unsustainability. The adoption of the upper price constraint scenario would address these issues, and provide the opportunity to provide increased dividends to councils however, the annual increases in price permitted under this scenario may represent a significant price shock to some customers.

The Economic Regulator has decided that each regulated entity is to adopt the preferred price constraint scenario as it provides the best balance between improving each regulated entity's financial sustainability, addressing regulatory compliance issues and managing the impact of price increases on customers.

The Economic Regulator notes that:

1. *the preferred price constraint of the greater of \$50 or 10 per cent per service applies to standard 20mm water and 100mm sewerage connections; and*

2. *the price constraint for larger water and sewerage connections must be calculated having regard to the connection usage size ratio (CSUR) and the applicable sewerage ET i.e. as the greater of [(multiples of \$50) or 10 per cent].*

5.4.9 Proposed treatment of customers above target tariffs

As mentioned previously, customers above the target tariff will have their prices frozen for the first two years of the regulatory period at 2011-12 levels (there is one minor exception proposed by Cradle Mountain Water which is discussed separately below). Southern Water and Cradle Mountain Water have proposed that such customers will have their prices reduced by five per cent in the final year of the first regulatory period (2014-15). Ben Lomond Water proposed considering such a reduction at that time depending on its financial position.

The analysis in Chapter 4 highlighted the financial sustainability issues facing the regulated entities. Due to the extent of differences in prices inherited from councils, the regulated entities argued that moving customers above the target tariff to the target immediately would have significant adverse impacts upon their revenue and, therefore, financial sustainability. The only other available options would be to adopt higher target tariffs (meaning that some customers that would otherwise have their prices frozen, will face increasing charges), or through the application of higher price constraints, which as discussed in the previous section, may lead to price shocks for some customers.

The Economic Regulator considered that the fact that not all customers will be transitioned to the target tariff over the first regulatory period is an unavoidable outcome of the:

- extent of price differences and cross-subsidies inherited from councils;
- the current financial unsustainability of the regulated entities due to past revenue under recovery by councils; and
- the need to manage the impacts of price increases upon customers.

On this basis, unwinding cross-subsidies and moving all customers to uniform tariffs is likely to extend well beyond the first regulatory period.

However, the Economic Regulator does not consider Ben Lomond Water's proposal to only consider providing a five per cent reduction for customers above the target tariff in 2014-15 to be appropriate. It is considered that customers are to be provided with certainty through the Price Determination process. Further, any reduction in revenue to Ben Lomond Water from providing a five per cent reduction (consistent with Southern Water and Cradle Mountain Water) would only impact upon its ability to fund dividends and the level of borrowing that it may require in that year.

The Economic Regulator requires Ben Lomond Water to reduce, by five per cent, prices for those customers above the target tariff in 2014-15.

Cradle Mountain Water also noted that it has a key aim of ensuring that the majority of customers are on the fixed water target tariff by the end of the first Price Determination period. For the majority of customers this involves being moved up to the target tariff in accordance with the proposed price transition arrangements.

However, in the area covered by the Kentish Council, previous charging arrangements by that council mean that the majority of customers are already above the target tariff (in many cases to a significant extent). To achieve Cradle Mountain Water's reform objective these customers need to be moved down to the target tariff.

Cradle Mountain Water proposed moving all Kentish customers straight to the fixed water target tariffs on 1 July 2012, unless this would result in an increase to the customer of greater than \$50 or 10 per cent on their fixed water service tariff, in which case normal target tariff transition provisions will apply.

The Economic Regulator requires Cradle Mountain Water to move all Kentish customers straight to the fixed water target tariffs on 1 July 2012, unless this would result in an increase to the customer of greater than \$50 or 10 per cent on their fixed water service tariff, in which case normal target tariff transition provisions will apply.

This arrangement is to the benefit of the affected customers and reflects the relatively higher pricing applied to these customers, reflecting arrangements inherited from Kentish Council. The Economic Regulator notes that it is only financially possible for Cradle Mountain Water to implement this decision due to the small number of customers involved.

5.4.10 Mechanism to achieve new pricing arrangements (i.e. two-part pricing)

5.4.10.1 Assumption of average household water usage of 200kL per annum

Each regulated entity proposed adopting 200kL per annum as the average water consumption by each household as the basis for price reform and the removal of free water allowances.

In moving to two-part water pricing where current charges are based solely on property values, the regulated entities propose reducing the 2011-12 fixed water charge for each customer based on the average expected regional water usage and then charging customers an additional variable charge based on actual water usage. The average expected regional water usages are determined based on connection size. For a 20mm connection this will be 200kL per annum. This amount is then scaled up using the connection size ratios adopted for fixed target tariffs.

For example, a customer with a 20mm connection will have their current charge reduced by \$180 (being the 200kL per annum estimated usage at \$0.90 per kilolitre) to determine their initial fixed water charge and customers then will be charged for their actual usage at \$0.90 per kilolitre. A customer with a 50mm connection will have their current charge reduced by \$1 125 (being the 200kL per annum estimated usage multiplied by the connection ratio of 6.25 to determine usage of 1 250kL per annum at \$0.90 per kilolitre).

The same approach is proposed where a customer's 2011-12 water charge is above the 2012-13 target tariffs. For example, if a customer's 2011-12 water bill is \$1 500, it will be reduced by the assumed variable component of \$180 (200kL at \$0.90/kL). As the balance of \$1 320 exceeds the fixed water target tariff, the fixed component will be maintained at that level for 2012-13 and 2013-14 before reducing by five per cent in 2014-15. If the customer uses more than the assumed regional average of 200kL, further variable charges will be imposed at the rate of \$0.90/kL.

In the case of Ben Lomond Water and Cradle Mountain Water, the 200kL has been based on average metered consumption in their respective regions.

It should be noted that, based on interstate measures of average annual indoor use only per person, and Tasmania's average household size, it is estimated that the minimum average water usage in Tasmania per household would be approximately 150kL. Therefore, assumed average usage of 200kL per annum implies that 25 per cent of annual usage will be for outdoor purposes.

Southern Water conceded that it does not possess usage data for the majority of customers in its region due to the absence of water meters in all but six municipalities.

In calculating average water usage, Southern Water has excluded Central Highlands and Huon Valley as each of these municipalities currently provides a free water allowance. Glamorgan-Spring Bay and Southern Midlands were also excluded due to historical greater water restrictions and a more rural customer base not being seen as indicative of the water usage for the majority of customers in the southern region respectively.

Southern Water's adoption of the 200kL average was, therefore, based on water usage for 2008-09 and 2009-10 in the remaining two municipalities – Sorell and Brighton – on the basis that the residential areas of those two municipalities had block sizes similar to those in other residential areas which did not previously have meters e.g. Kingston, Clarence, Hobart and Glenorchy. Southern Water also compared its 200kL average to the historical water usage of interstate customers in the last year before the drought (2005-06) which showed that usage of approximately 200kL was common.

The Economic Regulator did not consider this to be an issue for the northern or north western regions as those regions are mostly metered and reasonably accurate and reliable water usage data is available. The Economic Regulator was, however, concerned about the adoption of the 200kL usage figure for the southern region. Whilst there was no basis to assume otherwise, the Economic Regulator was concerned that water usage in Sorell and Brighton may not be indicative of usage across the region as a whole particularly in the Hobart, Kingborough, Glenorchy and Clarence residential areas.

Additionally, if actual usage exceeds the estimated 200kL, customers will be subject to price increases above the proposed \$50/10 per cent price constraint; for example, usage of an additional 50kL i.e. 250kL per year will result in an additional \$45 in

variable charges at \$0.90/kL. The regulated entities will also receive increased revenue where actual usage exceeds the estimated 200kL.

Given these concerns, the Economic Regulator sought feedback as part of the consultation process on the draft Report on the proposal to accept 200kL as the assumed average usage for the Southern region.

Whilst noting the concerns raised in the submissions on this issue, the Economic Regulator does not see any reason for the water consumption in the south to differ from the north and north-west of the State where data collected from water meters over a long period of time support average household usage of 200kL per annum.

The Economic Regulator has decided, therefore, to accept Southern Water's estimated average household water usage of 200kL per year.

The Economic Regulator notes that water consumption data for the southern region for at least the 2012-13 and 2013-14 financial years will be available for consideration as part of the second Price Determination investigation.

5.4.10.2 Removal of free water allowances

Free water allowances (where customers are not charged a variable charge for water usage up to a defined limit) were implemented by a number of councils. These allowances are better described as “compulsory water allowances” as the costs of the provision of this water are required to be recouped through the fixed charge, regardless of actual water usage. This has the effect of creating a cross-subsidy where low water users subsidise high water users.

The pricing principles require the regulated entities to move to two-part pricing which means that, under law, the free water allowances inherited from the respective councils must be removed.

Advice was sought from each regulated entity on how they intended to remove their existing free water allowances.

Each regulated entity proposed removing free water allowances in a similar way to that adopted in moving customers from property based charges to two-part pricing, i.e. by reducing the 2011-12 fixed water charge based on the average expected regional water usage and then charging customers from the first kilolitre of usage. As outlined in section 5.4.10.1, the average expected regional water usages are determined based on connection size. For a 20mm connection this will be 200kL per annum. This amount is then scaled up using the connection size ratios adopted for fixed target tariffs. Fixed water charges will transition to the fixed water target tariffs once any free water allowance has been removed.

Under this approach, all free water allowances will be removed for Ben Lomond Water and Southern Water customers from 1 July 2012.

Cradle Mountain Water's proposed Price and Service Plan explained that all councils in its region, with the exception of Burnie, will have their free water allowances removed from 1 July 2012. Cradle Mountain Water proposes Burnie

customers will have their allowance reduced to 200kL (average residential consumption) from 1 July 2012 and removed altogether in the final year of the regulatory period (i.e. 2014-15) (see further section 5.4.10.3).

The Economic Regulator has decided to approve the regulated entities' proposed approach to removing free water allowances with the exception of Cradle Mountain Water's proposal with respect to Burnie (see section 5.4.10.3).

5.4.10.3 Proposed retention of free water allowances for part of the first regulatory period

As noted in the previous section reforming prices in line with the pricing principles requires the removal of free water allowances.

Whilst Southern Water and Ben Lomond Water are removing all free water allowances from 1 July 2012 (i.e. the start of the first regulatory period) for all customers in their respective regions, Cradle Mountain Water proposed retaining Burnie's free water allowance for the first two years of the first regulatory period (albeit at the reduced level of 200kL for those two years).

Cradle Mountain Water was asked to justify its proposed retention of free water allowances in Burnie for part of the first regulatory period. In response, Cradle Mountain Water noted that six of the nine councils in its region had free water allowances as part of their charging regime for water services. The free water allowance was built into the fixed charge with an excess charge applied when or if consumption exceeded the allowance level. The annual free water allowance volumes ranged from 50kL to 400kL.

The extent of Burnie's free water allowance meant that Cradle Mountain Water had to apply a higher price constraint and increase prices for Burnie customers by a greater extent than the price increases applying to other customers in its region to remove the free water allowance applying in this area by 1 July 2012.

As an alternative, Cradle Mountain Water proposed substantially reducing the variable charges for Burnie's customer to remove free water allowances by 1 July 2014. This involved reducing the variable charge for Burnie customers to just \$0.0715/kL in 2014-15.

Reducing the variable charge to this level was not acceptable to the Economic Regulator as the proposed charge is well below the cost of supplying the service (i.e. between \$0.42/kL and \$0.44/kL).

Cradle Mountain Water was, therefore, requested to provide an alternative proposal that addressed the above concerns. In response, Cradle Mountain Water suggested imposing a higher \$75/10 per cent price constraint for water supplied to Burnie customers thereby bringing forward the removal of the free water allowance for those customers to 1 July 2013 and resulting in variable charges of \$0.1872/kL in 2013-14 and transitions to a level roughly equivalent to SRMC in 2014-15. This was considered to be a more preferable outcome. While customers in Burnie will face higher maximum increases in water charges, this reflects the fact that Burnie

customers are starting from a lower price level than Cradle Mountain Water's other customers.

The Economic Regulator requires Cradle Mountain Water to apply the higher price constraint of the greater of \$75 and 10 per cent to the water service component for Burnie customers over the first regulatory period, resulting in the removal of free water allowances for those customers from 1 July 2013.

5.4.11 Equivalent tenements

As discussed, the regulated entities propose determining sewerage charges as a ratio of the assessed ETs for each customer.

The Economic Regulator noted that the regulated entities indicated that ETs are yet to be determined for all customers and that estimated ETs are being used for billing in 2011-12. It was not clear from the proposed Price and Service Plan's what was intended for the first regulatory period, i.e. whether estimates or determinations of ETs will apply and how customers would be transitioned in the event that their ET assessment changed from that estimated to the value subsequently determined.

Advice was sought from the regulated entities about the basis of their estimation of ETs and how they intended managing customer impacts if and when prices change as a result of actual ETs varying from the estimated ETs.

The regulated entities' collective response noted that actual ETs will be reviewed and calculated during 2011-12 for each customer. Where there is a change in target tariff due to a difference between estimated ETs (used in 2011-12) and determined ETs (to be used in the first regulatory period) customers would be transitioned to the revised target tariff in line with the proposed price constraints and would, therefore, not face a price shock as a result of this changed ET assessment.

The Economic Regulator considers it essential that customers have certainty with respect to prices and it is highly desirable for ETs to be set at the beginning of the Price Determination period; and only revised or reset where the usage of the site changes resulting in a change in the number of ETs. Where the ET is revised based on a change in use of the site, the Economic Regulator requires the relevant regulated entity to bill the customer based on the revised ET from the start of the following billing period.

Noting that each regulated entity has provided an undertaking that it will complete the calculation of ETs on or before a customer's first quarterly account billing cycle of the first regulatory period, the Economic Regulator accepts the regulated entities' approach with respect to ETs noting in particular that the price constraints will minimise customer impacts.

5.4.12 Motor Home Dump Points

A motor home dump point is a facility intended to receive the discharge of wastewater from any holding tank or similar device installed in a recreational vehicle. Some of these facilities also have water connections.

Where a motor home dump point facility has a water connection, the regulated entities proposed charging the full fixed water target tariff and the full variable water target tariff.

The Economic Regulator considers that charging at the full rates for each of the fixed and variable water components is appropriate.

The regulated entities have, however, proposed a variety of charges for the sewerage component, ranging from 0.65 ET to two ETs.

In the absence of reliable data on the usage of these facilities, the Economic Regulator considers that charging for the sewerage component of these facilities at the rate of one ET is appropriate.

The Economic Regulator requires each regulated entity to apply the following target tariffs for motor home dump points:

- *full fixed water target tariff (where applicable);*
- *full variable water target tariff (where applicable); and*
- *full fixed sewerage target tariff (i.e. one ET).*

It should be noted that this requirement relates only to target tariffs and the applicable price transition arrangements will continue to apply.

5.4.13 Charges for new connections and revenue protection

5.4.13.1 New connections

The regulated entities proposed applying target tariffs (or in the case of Cradle Mountain Water – new customer connection tariffs) to customers in instances where:

- an existing customer changes their property's predominant use;
- an existing customer requires altered connection arrangements; and
- previously unconnected properties connect to water and/or sewerage infrastructure (including new sub-divisions).

Ben Lomond Water's proposed Price and Service Plan indicated that it intended to move customers to target tariffs where there is a change of ownership, regardless of whether they are a new or existing customer. Ben Lomond Water's subsequent submission on the draft Report referred to a drafting error which resulted in this statement being made and noted that it was never Ben Lomond Water's intention to charge the target tariff on change of ownership.

Cradle Mountain Water has only proposed moving customers to the target tariff upon change of ownership where a new connection is involved.

It should be noted that Cradle Mountain Water currently has a new customer connection tariff, which it proposes to maintain for the first regulatory period. This tariff is above target tariff levels but transitions to equivalent target tariffs by the end of the first regulatory period.

The proposed new customer tariff for Cradle Mountain Water is considered appropriate as it reflects arrangements currently in place and will effectively be phased out by the end of the regulatory period (when it will equal target tariffs).

However, it is considered that there should be uniformity in the instances where customers will be moved directly to the target tariff. Where an existing property changes ownership, the new property owner should be charged on the basis of the existing tariffs relating to that property. To move those customers directly to the target tariff, as Ben Lomond Water proposes, would create significant revenue risks (as those customers with charges well above target tariffs would be incentivised to attempt to move directly to the target tariff) that would be difficult for the regulated entities to manage as it would require an assessment of change in beneficial ownership.

In its draft Report, the Economic Regulator proposed that customers can only be moved directly to the target tariffs (or new customer tariffs in the case of Cradle Mountain Water) in instances where:

- an existing customer changes their property's predominant use;
- an existing customer requires altered connection arrangements; and
- previously unconnected properties connect to water and/or sewerage infrastructure (including new sub-divisions).

In their submissions on the draft Report, the regulated entities sought approval to also move customers directly to the target tariff/new customer target tariff where a tariff has not previously been charged for a property already connected to water and/or sewerage infrastructure.

The Economic Regulator has decided that the regulated entities can move customers directly to the target tariff/new customer target tariff in the following instances:

- *an existing customer changes their property's predominant use;*
- *an existing customer requires altered connection arrangements;*
- *previously unconnected properties connect to water and/or sewerage infrastructure (including new sub-divisions); and*
- *where a tariff has not previously been charged for a property already connected to water and/or sewerage infrastructure.*

5.4.13.2 Revenue Protection

The regulated entities also raised concerns about the risk of revenue loss particularly in relation to customers that are currently well above the relevant target tariff. The key areas that were identified, which would result in lower target tariffs for customers (and potential revenue loss for the regulated entity affected) include:

- rationalisation - where the number of connections is reduced in order to reduce a bill;
- downsizing - where a connection is reduced in size in order to reduce a bill;
- significant change in use - where the customer's requirements of a regulated entity's infrastructure changes significantly, requiring a lower level of service; and
- disaggregation of charges - where the current customer charge is disaggregated over the customer's current total number of services, e.g. water charge disaggregated over a domestic use connection and a fire service (fire service has the potential to be identified as a 'new connection' if it has not been charged previously).

In response the regulated entities proposed that customer charges be imposed in accordance with the transition arrangements, notwithstanding any changes to a customer's connection arrangement, amalgamation of titles, conversion of strata titles to a single title, or other arrangement.

The Economic Regulator recognised that there are revenue risks associated with the changes listed above. However, it was concerned that the response proposed by the regulated entities would not address the situation where there is a genuine reason for changed arrangements and would thereby prevent the customers benefiting from placing less demand upon water and/or sewerage infrastructure.

The Economic Regulator has decided that the regulated entities are to include the following undertaking in their Price and Service Plans:

- (1) *subject to (2), customer charges will be imposed in accordance with the transition arrangements, notwithstanding any changes to a customer's connection arrangement, amalgamation of titles, conversion of strata titles to a single title, or other arrangement.*
- (2) *customer charges will be imposed in accordance with prevailing target tariffs where there has been a change of use resulting in:*
 - *a genuine and permanent reduction in water demand resulting in a change in the number and/or size of water connections; and/or*
 - *a genuine and permanent reduction in the number and/or size and/or load of sewerage connections.*

5.4.14 Phasing out of concessions

Each regulated entity has been required to maintain a range of concessions to not-for-profit organisations in line with requirements specified by owner councils in respective Shareholder Letters of Expectations.

Each regulated entity's Shareholder Letter of Expectations referred to the phasing out of these concessions. Ben Lomond Water and Cradle Mountain Water were required to maintain these concessions until 30 June 2012, with Southern Water required to keep them in place until 30 June 2014.

It is understood that the regulated entities intend to phase out the current concessions by the third year of the regulatory period.

These concessions are not required by any statutory requirement, but result from directions from shareholders. *Therefore, from the perspective of the Economic Regulator, the decision to provide or remove the concessions is a voluntary business decision. In line with good governance practices, if the shareholders wish to maintain these concessions, then they should fund them transparently through Community Service Obligation arrangements.*

5.4.15 Charges for limited services

As discussed in section 5.3.2, the Economic Regulator proposes that each regulated entity adopt the following customer classes:

- full service customers;
- limited water quality - customers receiving water from a supply which has a permanent boil water alert in place or customers receiving water from a supply the regulated entity has declared to be non-potable;
- limited water supply - customers that:
 - are connected to a water main that periodically does not contain water under positive pressure; or
 - have a connection designed to provide low or intermittent flow, such as where the customer has been required to install, operation and maintain an individual tank or pump; or
 - are connected to a non-reticulation water main that is subject to significant pressure variations due to either –
 - a pumped supply where the low pressure is below 50 kPa and the high pressure is above 500 kPa; or
 - an inlet supply to a trunk reservoir such that when the reservoir inlet valve is open the pressure is below 50 kPa; or
 - receive a supply the regulated entity determines to be inadequate; and
- combined limited water quality and limited water supply.

The last three customer classes relate to instances where limited services are provided.

5.4.15.1 Limited water quality

The regulated entities have proposed that customers receiving a non-potable supply of water pay the full fixed charge, with a reduced variable charge applying in recognition of the fact that non-potable water goes through a reduced treatment process and a regulated entity's costs are, therefore, less than those for potable water.

Cradle Mountain Water proposed that the variable charge for limited water quality services be set at 80 per cent of the applicable standard variable water target tariff. Ben Lomond Water proposed that the variable charge for limited water quality services be set at approximately 77 per cent of the applicable standard variable water target tariff. Southern Water proposed a reduction in the applicable standard variable water target tariff of 15 cents per kL for the provision of a limited water quality service (which roughly equates to a 17 per cent reduction).

The amount of the discount proposed by the regulated entities for the provision of a limited water quality service is similar. For the purposes of achieving greater uniformity in pricing, the Economic Regulator considers that a single discount rate should apply.

The Economic Regulator has decided that each regulated entity is to apply the following target tariffs for customers receiving a limited water quality service:

- *full fixed water target tariff; and*
- *20 per cent reduction in the variable water charge target tariff.*

It should be noted that the above only relates to changes in target tariffs and the applicable price transition arrangements will continue to apply.

The above arrangements should apply to all customers receiving limited water quality services, until such time as a full water service is provided, i.e. potable water.

5.4.15.2 Limited water supply

Whilst the proposed Price and Service Plans contained some proposals in relation to different prices for limited water supply customers, the definition and proposed treatment of such customers differed. Following discussions with Cradle Mountain Water, it proposed that limited water supply customers pay 90 per cent of the fixed water target tariff in recognition of the fact that these customers are not receiving a full service. Cradle Mountain Water further proposed that limited water supply customers will pay the full variable water target tariff.

Given that the limited water supply issues arise from physical network attributes, the Economic Regulator considers it appropriate for customers receiving such services to face a reduced fixed target tariff but that the full variable water target tariff continues to apply. In addition, in the absence of data to support relative costs, the

proposal by Cradle Mountain Water to reduce its fixed water target tariff by 10 per cent for limited water supply customers is appropriate.

The Economic Regulator has also decided that the above considerations would apply equally to each region.

In the interests of uniformity, the Economic Regulator requires each regulated entity to apply the following target tariffs for customers receiving a limited water supply service:

- 90 per cent of the full fixed water target tariff; and
- full variable water charge target tariff.

It should be noted that the above decision only relates to changes in target tariffs and the applicable price transition arrangements will continue to apply.

The Economic Regulator has also decided that the reduced fixed and variable charges apply to combined limited water supply customers until such time as the customer starts receiving a full service.

5.4.15.3 Combined limited water quality and supply

There are some instances where customers receive both limited water quality services and limited water supply services.

Following discussions with Cradle Mountain Water, it proposed that these customers should receive a 10 per cent reduction in their fixed water target tariff and a 20 per cent reduction in their variable water target tariff.

This proposal was consistent with the arrangements discussed in the previous sections and again, in the interests of uniformity, the Economic Regulator considered they should apply in each region equally.

The Economic Regulator has decided that each regulated entity apply the following water target tariffs for customers receiving both limited water quality and limited water supply services:

- 90 per cent of the full fixed water target tariff; and
- 80 per cent of the full variable water charge target tariff.

It should be noted that the above relates only to changes in target tariffs and the applicable price transition arrangements will continue to apply.

The Economic Regulator also decided that the reduced fixed and variable charges apply to combined limited water quality and water supply customers until such time as the customer starts receiving a full service.

5.4.16 Forecasts of customers, demand and miscellaneous fee transactions

5.4.16.1 Customer forecasts

Revenue to be received by the regulated entities from fixed water and sewerage charges will depend on both the level of proposed prices and forecasts of customer numbers.

The regulated entities are forecasting the following changes in their respective customer numbers during the first regulatory period:

- Ben Lomond Water – forecasting growth of 0.62 per cent, 0.61 per cent and 0.60 per cent for 2012-13, 2013-14 and 2014-15 respectively;
- Southern Water – forecasting growth of 0.70 per cent for each year of the regulatory period; and
- Cradle Mountain Water - not forecasting any growth in real terms in customer numbers.

The Economic Regulator noted that customer growth forecasts were based on an analysis of relevant Demographic Change Advisory Council (DCAC) forecasts.

The Economic Regulator accepts the regulated entities' forecasts of expected customer numbers.

5.4.16.2 Water demand forecasts

Revenue to be received by the regulated entities from variable water charges will depend on the level of those charges and the amount of water used by customers.

Given the low customer growth forecasts, the regulated entities are forecasting no change or minimal increases in demand for water as shown in Table 5.18.

Table 5.18 Forecast water demand by regulated entity for the first regulatory period

	2012-13 (kL)	2013-14 (kL)	2014-15 (kL)
Ben Lomond Water	12 747 712	12 747 712	12 747 712
Cradle Mountain Water	15 000 000	15 000 000	15 000 000
Southern Water	32 065 000	34 074 000	34 312 000

Water demand forecasts were based on an assumed average household water consumption of 200kL.

In the absence of more reliable data, the Economic Regulator has decided to accept the regulated entities' forecasts of water demand.

5.4.16.3 Forecast of the number of miscellaneous transactions

Whilst Southern Water was able to provide details of the number of miscellaneous fee transactions in response to the Economic Regulator's request for further details

about this issue, neither Cradle Mountain Water nor Ben Lomond Water were able to readily provide this information as required under section 4.11 of the Guideline.

The Economic Regulator does not intend pursuing this non-compliance as part of this Price Determination investigation given that it has no impact on prices paid by customers but fully expects each regulated entity to be able to provide these details in future regulatory periods.

5.5 Prices for other services

Each regulated entity proposed charging for a range of other services associated with the provision of regulated water and sewerage services.

The proposed pricing structure for these services comprised a mixture of set amounts for standard services such as meter reads and pricing principles that determine cost reflective charges that vary depending on the particular circumstances e.g. recouping the costs of a property development. This section considers:

- the policies and arrangements relating to a number of these charges;
- the Economic Regulator’s assessment of those policies and arrangements;
- the proposed charges for the various miscellaneous services; and
- the Economic Regulator’s assessment of the proposed charges.

5.5.1 Review of policies

Each regulated entity was required to provide the following proposed policies as attachments to their proposed Price and Service Plans:

- Service Charges Policy;
- Developer Charges Pricing Policy;
- Customer Connection Policy;
- Service Extension, Introduction and Expansion Charges Policy; and
- Sub-metering Policy.

The policies, as provided to the Economic Regulator, were initially assessed for compliance with the requirements specified in the Guideline, the Industry Act and the Pricing Regulations.

As part of that compliance review, a number of concerns were identified in respect of:

- the readability of the policies;
- the use of inconsistent terminology in the various policies as developed by the individual regulated entities; and

- the overall functionality of the policies as stand alone legally binding documents.

As a result, the Economic Regulator redrafted each policy to ensure that they are legally effective, compliant with the relevant regulatory and legislative provisions, understandable to the reader, and consistent in their drafting structure and use of terminology. Such revisions would usually be undertaken by the regulated entities in discussion with the Economic Regulator. However, the time constraints placed on the conduct of the first Price Determination investigation meant that this redrafting had to be performed without input from the regulated entities.

The services provided under these policies are generally consistent across the State. Given that many customers operate in more than one region, it was considered desirable to achieve maximum uniformity to improve clarity and consistency for customers.

The Economic Regulator requires each regulated entity to adopt the same policy wording for each policy. In this way, the individual policies have been amalgamated and redrafted to be generic in their application to Ben Lomond Water, Cradle Mountain Water and Southern Water.

The redrafted policies required to be adopted by each of the three regulated entities are provided at Appendix 2 to this Report.

Further information in respect of the individual policies, including the Economic Regulator's assessment of the proposed policies, is provided below.

5.5.2 Service charges policy and service charges

A service charge is a charge levied where there is an ability to access a service even if there is not yet a physical connection to a regulated entity's infrastructure.

The Industry Act requires regulated entities to include in their Price and Service Plan a policy that sets out the circumstances in which the regulated entity will impose a service charge in relation to serviced land, and the amount of, or the method to be used in determining the amount of, that service charge.

Generally, the regulated entities have proposed to levy a service charge:

- to properties to which service charges applied prior to 1 July 2009;
- to properties within the service land area with water and/or sewerage infrastructure passing the property, but the property is not yet connected;
- on new properties serviced by water and/or sewerage infrastructure, but not yet connected; and
- where water and/or sewerage services are provided to serviced land other than through a connection point.

As for the other policies, the Economic Regulator reviewed each regulated entity's proposed Service Charges Policy.

The review identified a number of instances of non compliance with the service charges policy obligations contained in the Industry Act. Specifically, the draft policies submitted by the regulated entities omitted information relating to the provision of notice where a service charge is to be levied, the obligations of entities in providing for the inspection of a copy of such notice, and the information the entity is required to include in the notice. The policies were subsequently redrafted to address these matters. In addition, the service charges policies of the regulated entities have been amalgamated into one policy, generic in its application to Ben Lomond Water, Cradle Mountain Water and Southern Water.

The Economic Regulator requires each regulated entity to adopt the amended Service Charges Policy, a copy of which is provided at Appendix 2.

All three regulated entities proposed a service charge comprising the full fixed water target tariff and 60 per cent of the fixed sewerage target tariff as shown in the following tables.

Table 5.19 Service charge target tariff - water

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	286.00	303.00	322.00
Cradle Mountain Water	384.49	407.56	669.63
Cradle Mountain Water (new customer connections)	410.40	421.07	669.63
Southern Water	272.32	288.65	305.97

Table 5.20 Service charge target tariff - sewerage

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	286.00	303.00	322.00
Cradle Mountain Water	357.58	379.03	401.78
Cradle Mountain Water (new customer connections)	381.67	391.60	401.78
Southern Water	293.22	310.82	329.47

The above target tariffs were proposed on the following bases:

- the property owner should make a contribution towards the capital cost of the infrastructure even if not actually connected as the value of their property has increased because of potential access to the network but is not consuming water; and
- the customer is not discharging any sewage into the network so sewage treatment costs are not incurred.

The Economic Regulator requires each regulated entity to adopt the Service Charges Policy, a copy of which is provided at Appendix 2, noting that the normal price constraint transition arrangements will apply to customers paying service charges.

5.5.3 Developer charges policy and developer charges

Developer charges include headworks charges, assets gifted by developers and cash payments made by developers to regulated entities for the construction of new reticulation works.

Developer charges are imposed to recover the costs of installing excess capacity within a water and sewerage network. It is not considered appropriate for existing customers to meet these costs as developers receive the benefit of being able to charge higher prices for fully serviced developed land and purchasers of that land receive the benefit, in terms of enhanced property values, from having land serviced by water and sewerage infrastructure.

Proposed developer charges include the following three components:

- Headworks – a capital contribution towards consumption of capacity in water or sewerage network, or its expansion, which results from a development. These charges are usually levied on a per property/lot basis in a subdivisional development;
- Works internal – any infrastructure which is internal within a subdivision, up to the property boundary, is installed at a developer's cost and gifted (i.e. contributed) to the regulated entity; and
- Works external – where a development requires stand alone assets (e.g. a pump station) to be installed to support the development, at the cost of the developer.

The regulated entities proposed arrangements whereby charges associated with works internal and works external will be recovered on a cost reflective basis through direct payment or gifting of assets.

In relation to headworks charges, the regulated entities proposed arrangements that provide locational price signals to developers in that headworks charges will vary depending on the costs and system capacity constraints in the specific proposed development area. This approach is considered appropriate as locational price signals will not be provided to existing customers due to the proposed adoption of postage stamp pricing for water and sewerage services.

The regulated entities have adopted the net present value (NPV) methodology for determining headworks charges. The key principle of the NPV methodology is that the cost of providing water and sewerage services for a specific development area is fully recovered from the development through a combination of upfront charges and periodic charges without placing an additional burden on existing customers. This includes full cost recovery from new customers regardless of whether they are located in new development areas or in redeveloped existing areas. Under this approach, for two identical systems, headworks charges will be lower for the system that has the greater spare capacity.

The NPV methodology requires regulated entities to identify geographical areas, called headworks zones. The value of the assets required to service the specific

area is identified. In addition, the amount the regulated entity will receive in periodic charges in excess of operating requirements is determined. Using the NPV methodology, the costs and revenues are reconciled to a single value by discounting them to today's dollars. The headworks charge is calculated as the difference between the value of the assets required to service the headworks zone and the amount to be funded by periodic charges over a specified time period (as calculated by the present value of the periodic charges).

This can be written as an equation as follows:

$$\text{Cost of providing assets} = \text{Upfront charge (headworks charge)} + \text{Present value of amount recovered through periodic bills}$$

This equation can be rearranged to determine the headworks charge as follows:

$$\text{Upfront charge (headworks charge)} = \text{Cost of providing assets} - \text{Present value of amount recovered through periodic bills}$$

The headworks charge is calculated on an equivalent tenement (ET) basis for each headworks zone.

Both Cradle Mountain Water and Southern Water identified headworks charges per ET for each development zone in their proposed Price and Service Plans. Ben Lomond Water did not. Given the time available, the Economic Regulator has decided not to approve these charges as it has no way of determining whether they are cost reflective.

The Economic Regulator approves the pricing principles used to determine these charges as well as provisions to improve transparency for developers (as discussed below).

The Economic Regulator approves the use of the NPV methodology for calculating headworks charges on the basis that it meets the required pricing principles. This calculation methodology is reflected in the Developer Charges Policy to be adopted by all three regulated entities.

The Economic Regulator considered it important that developer charges arrangements have the objective of promoting transparency and providing certainty for developers in terms of making them aware of likely developer charges before commencing a development.

The Economic Regulator noted that Cradle Mountain Water's and Southern Water's proposed Price and Service Plan's identified the headworks zones within their regions and the various headworks charges that apply in different areas/zones as required by the Guideline. However, whilst Ben Lomond Water's proposed Price and Service Plan provided the necessary undertaking to provide a mechanism (in Ben Lomond Water's case, through a web-based calculator) to allow developers to estimate developer charges before commencing a development, the Economic Regulator noted that its proposed Price and Service Plan failed to identify and

justify its proposed headwork zones and the various headworks charges that are to apply in those zones.

The Economic Regulator also noted that Cradle Mountain Water's and Southern Water's proposed Price and Service Plan's failed to describe how and when they intend providing a mechanism for developers to estimate developer charges as required under the Guideline.

As noted previously, the developer charges pricing policies submitted by the regulated entities were reviewed for compliance against the relevant regulatory and legislative provisions. That review identified the omission, in the draft policies, of certain developer charges policy obligations required under the Pricing Regulations. These related specifically to the provision of developer charge estimates (to apply in respect of a property to be developed), and the provision of information by entities as to how the amount of the charge has been determined. The Economic Regulator has ensured that the developer charges policy include an undertaking by the regulated entities to, on or before 1 July 2015, develop an on-line calculator so that developers can (without assistance from the regulated entity):

- estimate the number of ETs that relate to their potential development; and
- ascertain the headworks charge per ET for each headworks zone.

It was originally proposed that the on-line calculator also allow developers to ascertain the value of reticulation assets they would need to gift or pay for.

However, based on the regulated entities' submissions on the draft Report, the Economic Regulator accepts that it is not practicable for the calculator to provide this information i.e. this information is available only after detailed discussions between the developer and the regulated entity and following detailed design by the developer's engineers at a later stage in the process.

The Economic Regulator requires each regulated entity's Developer Charges Policy to include a specific reference to this issue and make developers fully aware that they may be liable for additional costs in relation to reticulated assets associated with their proposed development.

The Economic Regulator has also amended the developer charges pricing policies submitted by the regulated entities to provide consistency in their use of certain terms and the adoption of a drafting structure comparable with other policies developed and submitted as part of each regulated entity's Price and Service Plan. The individual developer charges pricing policies have been amalgamated into one policy, generic in its application to Ben Lomond Water, Cradle Mountain Water and Southern Water.

The Economic Regulator requires each regulated entity to adopt the amended Developer Charges Pricing Policy, a copy of which is provided at Appendix 2.

5.5.4 Connections policy and connection charges

The point where a customer's pipes connect to a regulated entity's water and sewerage infrastructure is known as the connection point.

The customer connections policies proposed by the regulated entities outlined the circumstances in which an owner of land may connect to water and/or sewerage infrastructure and where a customer may relocate or adjust an existing connection.

Under the policies proposed by the regulated entities, a property will be permitted to connect to water and/or sewerage infrastructure if it complies with the following criteria:

- the property is within serviced land;
- a title is issued for that property or consent by the land owner;
- if necessary, a certificate for certifiable work is obtained;
- an application for connection has been completed; and
- the applicable connection fee has been paid.

The connection policies submitted by the regulated entities were reviewed for compliance against the relevant regulatory and legislative provisions noted above.

The compliance review of the connection policies submitted by the regulated entities identified some instances of non-compliance with the obligations of the Water and Sewerage Industry Act. Specifically, the policies had been drafted without considering the circumstances pertaining to the relocation or adjustment of connections. The policies were amended to reflect the relevant connection relocation or connection adjustment requirements.

The review also identified inconsistent use of terminology (in relation to terms used in the regulated entities' other policies). To this end, some redrafting was undertaken to better align terms and their definitions, and to ensure consistency with terms as defined in the water and sewerage legislation and the Code. Additional definitions of certain terms used throughout the policies were also included, as a means of providing further clarity for the reader.

The structure of the policies was similarly changed to mirror the structure of the other policies included as part of the regulated entities' Price and Service Plans.

The connection policies of the regulated entities have been amalgamated into one policy, generic in its application to Ben Lomond Water, Cradle Mountain Water and Southern Water.

The Economic Regulator requires each regulated entity to adopt the amended Customer Connection Policy, a copy of which is provided at Appendix 2.

Each regulated entities proposed the following connection fees:

- water service connection (standard 20mm connection) - new water service connections to residential property or a relocation of a water connection; and
- sewer service connection (standard 100mm connection) - new sewerage service connections to residential property or relocation of a sewerage connection.

The proposed connection fees are shown in the following tables.

Table 5.21 Connection fees – water 20mm

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	2 344.00	2 404.94	2 467.47
Cradle Mountain Water	2 450.24	2 513.95	2 579.31
Southern Water	2 258.00	2 316.71	2 376.94

Table 5.22 Connection fee – sewerage 100mm

	2012-13 (\$)	2013-14 (\$)	2014-15 (\$)
Ben Lomond Water	2 292.00	2 351.59	2 412.73
Cradle Mountain Water	2 319.20	2 379.50	2 441.37
Southern Water	2 226.00	2 283.88	2 343.26

The Economic Regulator noted that the proposed connection charges are similar but not the same. The changes as proposed were also being indexed at different rates (Ben Lomond Water at three per cent per annum, Cradle Mountain Water at four per cent per annum and Southern Water at 2.7 per cent per annum).

The Economic Regulator requires each regulated entity to adopt the proposed connection fees for 2012-13 but they be increased by 2.6 per cent per annum over the regulatory period to account for inflation. It is noted that the proposed connection fees apply only to 20mm water and 100mm sewerage connections.

The Economic Regulator has decided that the regulated entities are to determine charges for larger connections on a cost recovery basis.

5.5.5 Service extension, expansion and introduction policy

This policy covers:

- Service extension – meaning the lengthening of water and/or sewerage infrastructure to enable connection within existing service capacity;
- Service expansion – meaning augmentation of water and/or sewerage infrastructure to accommodate development of a property which cannot be catered for by current system capacity; and

- Service introduction – means the construction of water and/or sewerage infrastructure to service areas not previously receiving reticulated water and/or sewerage services.

The regulated entities proposed that service extensions will only apply within identified serviced land. Where a customer is already paying a service charge, the extension will be undertaken by the regulated entity at no cost to the customer (although a connection charge may apply). If the customer, within serviced land, is not paying a service charge, it will be liable for a service extension charge set at cost recovery.

Where service expansions are required, charges will be calculated in accordance with the Developer Charges Pricing Policy.

In relation to service introduction proposals, the regulated entities proposed a number of conditions to be satisfied for these to proceed. These are spelt out in the Service Extension, Expansion and Introduction Policy.

Where these conditions are met, a service introduction charge may be levied. Service introduction charges are a temporary charge (in addition to the standard fixed and variable charges) levied on existing premises (as opposed to developments to which developer charges apply) to help recover some of the capital cost of extending the water and/or sewerage infrastructure to those properties.

These charges will reflect the costs of the particular service introduction proposal and are calculated using the NPV methodology net of any third party contributions (such as government funding). The application of any service introduction charge must be consistent with Regulation 9 of the Pricing Regulations and allow payment by the customer over a period of time, if requested by the customer.

As with the other policies, the Economic Regulator reviewed each regulated entity's proposed service extension, expansion and introduction policy for compliance against the relevant regulatory and legislative provisions noted above.

Whilst generally compliant, the review did identify some inconsistency in the use of terminology (in relation to other policies of the entities), and an opportunity for improvement in their readability. To this end, some redrafting was progressed to better align terms and their definitions and ensure consistency with terms as defined in the water and sewerage legislation. Additional definitions of certain terms used throughout the policies were also included, as a means of providing further clarity for the reader.

As with the other policies submitted by the regulated entities as part of their Price and Service Plans, the individual service extension, expansion and introduction policies were subsequently amalgamated into one policy, generic in its application to Ben Lomond Water, Cradle Mountain Water and Southern Water.

The Economic Regulator requires each regulated entity to adopt the amended Service Extension, Expansion and Introduction Policy, a copy of which is provided at Appendix 2.

5.5.6 Sub-metering policy

The Government amended the water and sewerage legislation in 2011 so that owners of strata title properties could be treated as a customer under the water and sewerage legislation thereby receiving the benefit of the customer protection policies in the Code. However, the amended legislation did not address the issue of whether strata title properties are to be sub-metered, i.e. each strata title property receives an individual water meter or whether a single master meter is installed. It is up to the water and sewerage corporations to propose under what circumstances a strata title property can be sub-metered and, if so, who bears the costs.

Whilst existing strata-title properties in other areas of the state have a mixture of boundary meters and sub-metering arrangements, mandating the installation of sub-meters is not without its own issues as it raises significant practical and cost implications which may outweigh the pricing equity benefits.

The financial implications of sub-metering will vary depending on the nature of individual strata title properties and, in some cases, it is simply not possible to install sub-meters without alteration to the fabric of a building or costly reconfiguration of internal plumbing. This is primarily due to legacy issues associated with the original water and sewerage infrastructure not being installed to support sub-metering at the time the strata title property was constructed.

Section 4.7 of the Guideline requires each regulated entity to prepare and publish its sub-metering policy setting out details of:

- where sub-metering may be offered;
- the process for strata title owners to follow in deciding whether to install sub-meters; and
- the charging arrangements that will apply depending on whether there is a boundary meter installed or a sub-meter installed.

The regulated entities submitted two sub-metering policies (one covering Ben Lomond Water and Cradle Mountain Water), and a separate policy covering Southern Water. The policies also addressed metering in relation to multi-unit properties, i.e. properties that have one owner but multiple units in addition to metering for strata title properties.

Differing arrangements apply to when sub-metering is permitted depending on whether it relates to:

- an existing strata title property;
- a new strata title development; or
- a multi-unit property.

The arrangements proposed generally place the decision on whether or not to sub-meter with the property owner, i.e. the owner of the multi-unit property or the strata title body corporate. This is considered appropriate as it enables a decision on

whether the benefits of sub-metering, in terms of pricing equity for water usage, out-weigh the costs of sub-metering.

The proposed arrangements also reinforce the boundaries of property ownership and responsibility, noting that, even where sub-meters are installed, the regulated entities are not responsible for pipe work within a strata title or multi-unit property.

The Economic Regulator reviewed the proposed sub-metering policies provided by the regulated entities. The Economic Regulator considered that the policies generally met the relevant regulatory requirements. However, in examining the two proposed policies, there appeared to be little practical difference between the two, although slightly different pricing arrangements applied, particularly in relation to the recovery of master meter costs.

Given the complexity of this issue, the Economic Regulator considered that there should be maximum uniformity across the State in terms of how sub-metering is implemented by the regulated entities.

The Economic Regulator considered that the sub-metering policy proposed by Southern Water was clearer in its drafting structure and application. However, the Economic Regulator has amended this policy slightly to address technical drafting issues.

Acknowledging that there may be practical implications of which it is not currently aware, the Economic Regulator requires all three regulated entities to adopt the revised sub-metering policy (which is based on the policy proposed by Southern Water) a copy of which is provided at Appendix 2.

Under this policy, for strata title developments, where there is no sub-metering, it is proposed that charges will be allocated to individual strata title property owners in line with strata title general or special unit allotments or allocated equally where such information is not available.

For strata title developments with sub-metering, fixed charges will be based on the size of the sub-meter, usage charges will be based on usage measured by the sub-meter, and the bill will also include a proportion of the following:

- the fixed charge associated with the master meter;
- the fixed and volumetric charge for common use areas (if applicable); and
- excess water supplied to the master meter (to account for leakage within the strata title property).

Unless otherwise advised by the body corporate, the above allocations will be made according to the corresponding general or special strata title unit entitlements.

For multi-unit properties with sub-metering, a bill will be sent to the property owner detailing charges for water usage shown for each sub-meter.

It is acknowledged that these arrangements are complex and that they result in the differing treatment of strata title property owners, relevant to freehold property

owners. However, it is considered that they are appropriate given the practical and financial legacy issues associated with sub-metering.

5.5.7 Trade waste charges

Trade waste means the liquid waste generated by any industry, business, trade or manufacturing process. As the definition of “sewage” under section 3 of the Industry Act includes trade waste, the disposal, removal and treatment of trade waste is a regulated service.

Each regulated entity was required to provide details of its proposed trade waste pricing. These structures are outlined below, followed by the Economic Regulator’s assessment of these.

From the regulated entities’ proposed Price and Service Plan’s it was unclear:

- whether all trade waste customers would be operating under trade waste contracts (negotiated under section 61 of the Industry Act) rather than being subject to trade waste tariffs; and
- how each regulated entity intended to manage the impact of price increases for trade waste customers.

Each regulated entity was, therefore, asked to explain how it envisaged trade waste contracts would operate and how it intended managing the impact of price increases on current and potential future, trade waste customers.

In response, the regulated entities advised that they intended dividing their trade waste customers into categories along the same lines as mainland providers have done. These categories are as follows:

- Category 1 - Low volume/low impact liquid trade waste;
- Category 2 - Low to medium volume and low impact liquid trade waste;
- Category 3 - Low to medium volume and medium impact liquid trade waste; and
- Category 4 - High impact liquid trade waste.

The regulated entities have also proposed that:

- low volume/low impact trade waste customers (i.e. Category 1 and 2 trade waste customers) would be treated as tariff customers covered by a standard regulated contract under section 60 of the Industry Act (by virtue of standard regulated contract these customers are also covered by the Code), with approval to discharge trade waste covered by a Trade Waste consent order; and
- high volume/high impact trade waste customers (i.e. Category 3 and 4 trade waste customers) will be required to enter into a trade waste agreement with the regulated entity in accordance with section 61 of the Industry Act.

The following table reflects the numbers of current and expected trade waste customers in each trade waste category for each regulated entity for the first and last year of the regulatory period (note: expected customers are increasing as many customers discharging trade waste into the sewage infrastructure were not historically identified as trade waste customers).

Table 5.23 Numbers of current and expected trade waste customers in each trade waste category for each regulated entity

Category	Ben Lomond Water		Cradle Mountain Water		Southern Water	
	2012-13 (current)	2014-15 (expected)	2012-13 (current)	2014-15 (expected)	2012-13 (current)	2014-15 (expected)
1	250	1 000	10	600	1 045	1 584
2	300	920	12	500	43	1 224
3	40	65	10	10	2	84
4	10	15	22	27	5	8
TOTAL	600	2 000	54	1 137	1 095	3 819

The section 61 process is intended to apply to large trade waste customers and recognises that those customers have the ability to negotiate with the regulated entities. Whereas smaller trade waste customers are to be provided the customer service code protections via standard regulated contracts. This proposal also recognises that the requirements of large trade waste customers vary significantly and are difficult to manage under regulated contracts. Also in the longer term the provision of trade waste services to large customers is often not a monopoly service as the customer may elect to pre treat its trade waste to sewage quality waste.

However, arrangements to pre-treat trade waste will take time to implement. Therefore, in the short term, there is a risk that the regulated entities may be able to exploit their monopoly status with large trade waste customers through section 61 contracts. It is considered that the regulated entities should provide an undertaking to provide a reasonable transition in prices over a period that reflects the time it would take for a trade waste customer to implement appropriate pre-treatment if it intended to do so.

The regulated entities have proposed trade waste pricing that includes a mixture of one off application fees, annual management fees, fixed service fees, volumetric disposal fees and mass load fees (for particular contaminants) depending on the customer category. The regulated entities also proposed the levying of exceedance charges (i.e. penalties) and the recovery of other costs associated with the customer failing to comply with the conditions of an agreement or consent, or failing to obtain approval for discharge of liquid trade waste into the sewerage network.

Proposed charges for trade waste customers were as follows:

- fixed prices for category 1 and 2 customers;
- charges based on the quantity of trade waste material discharged by category 3 customers; and

- charges based on monitored trade waste quality (i.e. mass loads) and quantity for category 4 customers.

Details of each regulated entity's trade waste pricing are included in Schedule 4 of the attached Price Determinations.

The Economic Regulator noted that the proposed charges for category one and two customers varied slightly between each regulated entity. The Economic Regulator also noted that each regulated entity proposed to index these charges at different rates (Southern Water by 2.7 per cent, Ben Lomond Water by three per cent and Cradle Mountain Water by four per cent).

The Economic Regulator has decided that each regulated entity is to categorise and treat trade waste customers as follows:

- *Category 1 and 2 trade waste customers operating under a standard regulated contract (section 60 of the Industry Act); and*
- *Category 3 and 4 trade waste customers operating under a section 61 contract.*

The Economic Regulator has also decided that the trade waste charges outlined in the attached Price Determination are to be applied noting that these charges will be uniformly indexed at 2.6 per cent per annum to account for inflation.

The Economic Regulator has further decided that each regulated entity is to amend its Price and Service Plan to include an undertaking that prices negotiated with category 3 and 4 trade waste customers will provide a reasonable transition over a period that reflects the time it would take for a trade waste customer to implement appropriate pre-treatment if it intended to do so.

The Economic Regulator has also decided to amend Schedule 4 of each Price Determination to remove references to category 3 and 4 trade waste customers given that pricing for these customers will be agreed as part of contract negotiations.

The Economic Regulator requires the regulated entities to amend their Price and Service Plans to include an undertaking to publish the following material on their websites in relation to trade waste:

- *make it clear why and how the application fee is charged;*
- *explain how the application process integrates with the Trade Waste consent form attached to the Standard Customer Contract;*
- *explain the basis for calculating and imposing exceedance charges, including the limits over which exceedance charges will be applied;*
- *clearly state the threshold characteristics for trade waste which identifies the required pre-treatment outcomes (i.e. provide thresholds for basic characteristics covering particles, fibres, organic load and oil and grease and so on which give rise to the requirement for pre-treatment for category 1 and 2*

trade waste customers, and link to pre-treatment and required outcomes for infrastructure, treatment processes, safety and recycling and so on);

- *clearly identify the option of category 1 and 2 trade waste customers entering into section 61 contracts with a regulated entity;*
- *explain the interaction between sewerage and trade waste target tariffs and the transitional arrangements; and*
- *make it clear that category 3 and 4 customers will be asked to negotiate a section 61 contract.*

The Economic Regulator requires each regulated entity to take into account the following high level principles in drafting their standard customer contracts with particular reference to the trade waste consent for category 1 and 2 trade waste customers:

- *trade waste customers should be able to readily self-identify their trade waste category and determine their obligations and liabilities; and*
- *the standard customer contracts should link to, and be consistent with, Schedule 4 of the respective Price Determinations and to the regulated entities' website pages with respect to trade waste.*

From 1 July 2012, the following process will be used to apply new trade waste charges and remove existing trade waste charges from sewerage charges:

- new trade waste customers will move directly to their applicable trade waste tariffs;
- for existing categories 1 and 2 trade waste customers who receive a trade waste service but who historically have not been levied a separate charge for a trade waste service the following transition process will apply:
 - trade waste charges will be introduced by reducing the actual sewerage service charge by the applicable trade waste target tariff; or
 - in the event the current sewerage charges do not allow for the full trade waste target tariff to be split out, the resulting sewerage and trade waste charges will each increase under the applicable price constraints (i.e. the greater of \$50 or 10 per cent multiplied by the number of ETs assessed for the property).

5.5.8 Miscellaneous services

Each regulated entity was required to provide details of all fees and charges it proposes charging that are not fixed charges, variable charges, developer charges or service introduction charges.

As noted in section 5.3, these services are usually not provided on an ongoing basis and are driven by demand from customers or developers.

Each regulated entity proposed a number of miscellaneous fees and charges as part of their proposed Price and Service Plans and stated that they were determined on a cost recovery basis. The Economic Regulator supports this approach but in the time available to it has been unable to verify whether the fees are actually cost reflective. However, it notes that the proposed fees are indexed at different rates by the regulated entities.

It is noted that some of the fees proposed are to be determined on a “price on application” basis. This is considered appropriate in some cases as the costs involved may vary, provided that the fee is determined on a cost reflective basis.

The Economic Regulator has decided to approve the miscellaneous fees and charges for each regulated entity as outlined in the attached Price Determinations noting that these fees are based on those proposed by the regulated entities for 2012-13 but then indexed annually by 2.6 per cent to account for inflation.

The level of these fees will be reassessed as part of the second Price Determination investigation.

APPENDIX 1 PRICE DETERMINATIONS

BEN LOMOND WATER.....	A-3
CRADLE MOUNTAIN WATER	A-23
SOUTHERN WATER.....	A-49



**INVESTIGATION INTO WATER AND SEWERAGE
INDUSTRY PRICING POLICIES**

**BEN LOMOND WATER - WATER AND SEWERAGE
SERVICES PRICE DETERMINATION**

1 JULY 2012 – 30 JUNE 2015

CONTENTS

1. EFFECTIVE PERIOD

2. APPLICATION

3. PURPOSE

4. DEFINITIONS AND INTERPRETATION

5. PRICE AND SERVICE PLAN REQUIREMENTS

Schedule 1

Schedule 2

Schedule 3

Schedule 4

The Tasmanian Economic Regulator (the Regulator), having undertaken an investigation into the pricing policies of Ben Lomond Water in regard to its provision of regulated water and sewerage services on mainland Tasmania, in accordance with the *Water and Sewerage Industry Act 2008*, makes the following Determination under Section 66 of the Act.

The Determination is to take effect from 1 July 2012.

Dated: 28 May 2012



Glenn Appleyard
CHAIRMAN
TASMANIAN ECONOMIC REGULATOR

1. Effective period

This Determination takes effect on 1 July 2012 and ceases to have effect after 30 June 2015.

2. Application

This Determination applies to the Tasmanian Water and Sewerage Corporation (Northern Region) Pty Limited (ACN 133 655 062) trading as Ben Lomond Water in respect of the regulated services that Ben Lomond Water carries on within Tasmania during the period of this Determination.

In accordance with section 67(7) of the *Water and Sewerage Industry Act 2008*, this determination is binding on Ben Lomond Water.

3. Purpose

The purpose and reasons for the making of this Determination are to:

- a) specify the prices which Ben Lomond Water may charge for regulated services during the regulatory period or the manner in which such prices are to be calculated or otherwise determined; and
- b) reflect the achievement of the Regulator's obligations, and respective price determination requirements, under the *Water and Sewerage Industry Act 2008* and *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*.

4. Definitions and interpretation

- a) Unless the contrary intention appears, an expression used in this Determination has the same meaning as it has in the *Water and Sewerage Industry Act 2008*, the *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011* or in the Tasmanian Water and Sewerage Industry Customer Service Code.
- b) Any question arising from the interpretation of this Determination shall be determined by the Regulator.

5. Price and Service Plan requirements

Ben Lomond Water, in its Price and Service Plan, must:

- a) reflect the recommendations of the 2012 Water and Sewerage Industry Price Determination Investigation Final Report as released by the Regulator;
- b) apply prices calculated in line with the content of Schedules 1 and 2 to this Determination;
- c) apply prices for miscellaneous services in line with the content of Schedule 3 to this Determination; and
- d) apply trade waste charges in line with the content of Schedule 4 to this Determination.

This Determination is administered by the Regulator.

Schedule 1

Water charges

Fixed charges

(1) *Converting to two part pricing (determining initial fixed charge)*

$$FC_0 = WC_{-1} - (200\text{kL} \times \text{CSUR} \times \text{VCTT}_1)$$

$$FC_0 \geq 0$$

WC_{-1} = 2011-12 one part water charge

FC_0 = Initial fixed charge (basis for determining fixed charge (FC_1) in 2012-13)

CSUR = Connection size usage ratio as defined in Table 3 in Schedule 2

$VCTT_1$ = Variable charge target tariff in 2012-13

(2) *Removing free water allowance from existing two part pricing (determining initial fixed charge)*

$$FC_0 = FC_{-1} - (200\text{kL} \times \text{CSUR} \times \text{VCTT}_1)$$

$$FC_0 \geq 0$$

FC_{-1} = 2011-12 fixed charge

FC_0 = Initial fixed charge (basis for determining fixed charge (FC_1) in 2012-13)

(3) *Strata title schemes - converting to two part pricing (determining initial fixed charge)*

$$FC_0 = WC_0 - (200\text{kL} \times \text{CSUR} \times \text{UEP} \times \text{VCTT}_1)$$

UEP = The lot owner's proportion of the total strata unit entitlements and is calculated as follows:

$$\text{UE}_o / \text{UE}_{\text{total}}$$

UE_o = Unit entitlement of lot owner

UE_{total} = Sum of all unit entitlements in strata scheme

Where the strata unit entitlement is not available, unit entitlements will be allocated equally, with a default position of 1 UE per lot.

(4) Removing the fire service charge from the fixed water charge

if $FSC_{TT_1} > (FC_0 + FSC_{-1})$

then $FSC_0 = (FC_0 + FSC_{-1})$

$FC_{0+} = 0$

otherwise $FSC_0 = FSC_{TT_1}$

$FC_{0+} = (FC_0 + FSC_{-1}) - FSC_0$

FSC_0 = Initial fire service charge (basis for determining fire service charge (FSC_1) in 2012-13)

FSC_{-1} = Fire service charge in 2011-12 (if applicable)

FC_0 = Initial applicable fixed charge in 2012-13 prior to removal of fire service charge and prior to applying the price constraint.

FC_{0+} = Initial fixed charge in 2012-13 after removal of fire service charge and prior to applying the price constraint.

FSC_{TT_1} = Fire service target tariff in 2012-13 x CSUR

Determining fixed charges in each year of the regulatory period

(a) 2012-13

if $FC_0 > FCTT_1$

then $FC_1 = FC_0$

FC_0 = Fixed charge in 2011-12 (if existing two part pricing without free water allowance) or FC_0 calculated in (1) or (2) above.

FC_1 = Fixed charge in 2012-13

$FCTT_1$ = Fixed charge target tariff in 2012-13 x CSUR

if $FC_0 < FCTT_1$ and

- if $(FCTT_1 - FC_0) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_0 \times 0.1))$

then $FC_1 = (\text{greater of } (FC_0 + (\$50 \times \text{CSUR})) \text{ or } (FC_0 \times 1.1))$

- if $(FCTT_1 - FC_0) < (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_0 \times 0.1))$

then $FC_1 = FCTT_1$

(b) 2013-14

if $FC_1 > FCTT_2$

then $FC_2 = FC_1$

FC_2 = Fixed charge in 2013-14

$FCTT_2$ = Fixed charge target tariff in 2013-14 x CSUR

If $FC_1 < FCTT_2$ and

- if $(FCTT_2 - FC_1) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_1 \times 0.1))$

then $FC_2 = (\text{greater of } (FC_1 + (\$50 \times \text{CSUR})) \text{ or } (FC_1 \times 1.1))$

- if $(FCTT_2 - FC_1) < (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_1 \times 0.1))$

then $FC_2 = FCTT_2$

(c) 2014-15

if $FC_2 > FCTT_3$ and

- if $(FC_2 - FCTT_3) \leq (FC_2 \times 0.05)$

then $FC_3 = FCTT_3$

- if $(FC_2 - FCTT_3) > (FC_2 \times 0.05)$

then $FC_3 = (FC_2 \times 0.95)$

FC_3 = Fixed charge in 2014-15

$FCTT_3$ = Fixed charge target tariff in 2014-15 x CSUR

if $FC_2 < FCTT_3$ and

- if $(FCTT_3 - FC_2) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_2 \times 0.1))$

then $FC_3 = (\text{greater of } (FC_2 + (\$50 \times \text{CSUR})) \text{ or } (FC_2 \times 1.1))$

- if $(FCTT_3 - FC_2) < (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_2 \times 0.1))$

then $FC_3 = FCTT_3$

Variable charges*Determining variable charges in each year of the regulatory period*

(a) 2012-13

If free water allowance is removed or converted from one to two part pricing then

$$VC_1 = VCTT_1$$

VC_1 = Variable charge in 2012-13

$VCTT_1$ = Variable charge target tariff in 2012-13

If two part pricing applied in 2011-12 with no free water allowance then

if $VC_0 > VCTT_1$

$$\text{then } VC_1 = VC_0$$

VC_0 = Variable charge in 2011-12

if $VC_0 < VCTT_1$ and

- if $(VCTT_1 - VC_0) > (VC_0 \times 0.1)$

$$\text{then } VC_1 = (VC_0 \times 1.1)$$

- if $(VCTT_1 - VC_1) < (VC_0 \times 0.1)$

$$\text{then } VC_1 = VCTT_1$$

(b) 2013-14

if $VC_1 > VCTT_2$

$$\text{then } VC_2 = VC_1$$

VC_2 = Variable charge in 2013-14

$VCTT_2$ = Variable charge target tariff in 2013-14

if $VC_1 < VCTT_2$ and

- if $(VCTT_2 - VC_1) > (VC_1 \times 0.1)$

$$\text{then } VC_2 = (VC_1 \times 1.1)$$

- if $(VCTT_2 - VC_1) < (VC_1 \times 0.1)$

$$\text{then } VC_2 = VCTT_2$$

(c) 2014-15

if $VC_2 > VCTT_3$ and

- if $(VC_2 - VCTT_3) \leq (VC_2 \times 0.05)$

then $VC_3 = VCTT_3$

- if $(VC_2 - VCTT_3) > (VC_2 \times 0.05)$

then $VC_3 = (VC_2 \times 0.95)$

if $VC_2 < VCTT_3$ and

- if $(VCTT_3 - VC_2) > (VC_2 \times 0.1)$

then $VC_3 = (VC_2 \times 1.1)$

- if $(VCTT_3 - VC_3) < (VC_2 \times 0.1)$

then $VC_3 = VCTT_3$

Fire service charges

Determining fire service charges in each year of the regulatory period

a) 2012-13

FSC_{TT_1} = Fire service target tariff for 2012-13 x CSUR

if $FSC_0 < FSC_{TT_1}$ and

- if $(FSC_{TT_1} - FSC_0) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_0 \times 1.1))$

then $FSC_1 = (\text{greater of } (FSC_0 + (\$50 \times \text{CSUR})) \text{ or } (FSC_0 \times 0.1))$

- if $(FSC_{TT_1} - FSC_0) \leq (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_0 \times 0.1))$

then $FSC_1 = FSC_{TT_1}$

b) 2013-14

FSC_2 = Fire service charge in 2013-14

FSC_{TT_2} = Fire service target tariff for 2013-14 x CSUR

if $FSC_1 \leq FSC_{TT_2}$ and

- if $(FSC_{TT_2} - FSC_1) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_1 \times 0.1))$

then $FSC_2 = (\text{greater of } (FSC_1 + (\$50 \times \text{CSUR})) \text{ or } (FSC_1 \times 1.1))$

- if $(FSC_{TT_2} - FSC_1) \leq (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_1 \times 0.1))$

then $FSC_2 = FSC_{TT_2}$

c) 2014-15

FSC_3 = Fire service charge in 2014-15

$FSCTT_3$ = Fire service target tariff for 2014-15 x CSUR

if $FSC_2 \leq FSCTT_3$ and

- if $(FSTT_3 - FSC_2) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_2 \times 0.1))$
 then $FSC_3 = (\text{greater of } (FSC_2 + (\$50 \times \text{CSUR})) \text{ or } (FSC_2 \times 1.1))$
- if $(FSCTT_3 - FSC_2) \leq (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_2 \times 0.1))$
 then $FSC_3 = FSCTT_3$

Sewerage charges

(1) Removing trade waste charges from sewerage charges

if $TWTT_1 > SC_0$

then $TWC_0 = SC_0$

$SC_{0+} = 0$

otherwise $TWC_0 = TWTT_1$

$SC_{0+} = SC_0 - TWC_0$

TWC_0 = Initial trade waste charge (basis for determining trade waste charge (TWC_1) in 2012-13)

SC_0 = 2011-12 one part sewerage and trade waste charge.

SC_{0+} = Initial sewerage fixed charge in 2012-13 prior to applying the price constraint and basis for determining sewerage charge (SC_1) in 2012-13

$TWTT_1$ = Trade waste target tariff in 2012-13 x applicable ET

(2) Determining fixed charges in each year of the regulatory period

(a) 2012-13

if $SC_0 > SCTT_1$

then $SC_1 = SC_0$

SC_0 = Sewerage charge in 2011-12

$SCTT_1$ = Sewerage charge target tariff in 2012-13 x applicable ET

SC_1 = Sewerage charge in 2012-13

ET = each equivalent tenement (ET) equals one standard sewerage connection – properties will be assessed to determine the applicable number of ETs

If $SC_0 < SCTT_1$ and

- if $(SCTT_1 - SC_0) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_0 \times 0.1))$
then $SC_1 = (\text{greater of } (SC_0 + (\$50 \times \text{applicable ET})) \text{ or } (SC_0 \times 1.1))$
- if $(SCTT_1 - SC_0) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_0 \times 0.1))$
then $SC_1 = SCTT_1$

(b) 2013-14

if $SC_1 > SCTT_2$

then $SC_2 = SC_1$

SC_2 = Sewerage water charge in 2013-14

$SCTT_2$ = Sewerage charge target tariff in 2013-14 x applicable ET

if $SC_1 < SCTT_2$ and

- if $(SCTT_2 - SC_1) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_1 \times 0.1))$
then $SC_2 = (\text{greater of } (SC_1 + (\$50 \times \text{applicable ET})) \text{ or } (SC_1 \times 1.1))$
- if $(SCTT_2 - SC_1) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_1 \times 0.1))$
then $SC_2 = SCTT_2$

(c) 2014-15

if $SC_2 > SCTT_3$ and

- if $(SC_2 - SCTT_3) \leq (SC_2 \times 0.05)$

then $SC_3 = SCTT_3$

- if $(SC_2 - SCTT_3) > (SC_2 \times 0.05)$

then $SC_3 = SC_2 \times 0.95$

SC_3 = Sewerage water charge in 2014-15

$SCTT_3$ = Sewerage charge target tariff in 2014-15 x applicable ET

if $SC_2 < SCTT_3$ and

- if $(SCTT_3 - SC_2) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_2 \times 0.1))$

then $SC_3 = (\text{greater of } (SC_2 + (\$50 \times \text{applicable ET})) \text{ or } (SC_2 \times 1.1))$

- if $(SCTT_3 - SC_2) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_2 \times 0.1))$

then $SC_3 = SCTT_3$

Trade waste

Determining trade waste charges in each year of the regulatory period

a) 2012-13

$TWTT_1$ = Trade waste target tariff for 2012-13 x applicable ET

if $TWC_0 < TWTT_1$ and

- if $(TWTT_1 - TWC_0) > (\text{greater of } (\$50 \times \text{ET}) \text{ or } (TWC_0 \times 1.1))$

then $TWC_1 = (\text{greater of } (TWC_0 + (\$50 \times \text{ET})) \text{ or } (TWC_0 \times 0.1))$

- if $(TWTT_1 - TWC_0) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_0 \times 0.1))$

then $TWC_1 = TWTT_1$

b) 2013-14

TWC_2 = Trade waste charge in 2013-14

$TWTT_2$ = Trade waste target tariff for 2013-14 x applicable ET

if $TWC_1 \leq TWTT_2$ and

- If $(TWTT_2 - TWC_1) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_1 \times 0.1))$
then $TWC_2 = (\text{greater of } (TWC_1 + (\$50 \times \text{applicable ET})) \text{ or } (TWC_1 \times 1.1))$
- If $(TWTT_2 - TWC_1) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_1 \times 0.1))$
then $TWC_2 = TWTT_2$

c) 2014-15

TWC_3 = Trade waste charge in 2014-15

$TWTT_3$ = Trade waste target tariff for 2014-15 x applicable ET

if $TWC_2 \leq TWTT_3$ and

- if $(TWTT_3 - TWC_2) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_2 \times 0.1))$
then $TWC_3 = (\text{greater of } (TWC_2 + (\$50 \times \text{applicable ET})) \text{ or } (TWC_2 \times 1.1))$
- if $(TWTT_3 - TWC_2) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_2 \times 0.1))$
then $TWC_3 = TWTT_3$

Schedule 2 – Prices

Table 1 Target tariffs – Fixed water charges (nominal dollars)

Connection size	2012-13	2013-14	2014-15
20 mm	\$286.00	\$303.00	\$322.00

These tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 2 Target tariffs - Fire Service fixed charge (nominal dollars)

Connection size	2012-13	2013-14	2014-15
20 mm	\$71.50	\$75.58	\$80.50

These tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 3 Connection size usage ratio

Connection size (mm)	Multiplier
20	1.00
25	1.56
30	2.25
32	2.56
40	4.00
50	6.25
65	10.56
75	14.06
80	16.00
100	25.00
150	56.25
200	100.00

Table 4 Target tariffs – Variable water charges (nominal dollars)

	2012-13	2013-14	2014-15
Potable water variable charge (\$/kL)	\$0.9000	\$0.9234	\$0.9474
Non-potable water variable charge (\$/kL)	\$0.7200	\$0.7387	\$0.7579

Non-potable water represents the 'Limited Water Quality' target tariff.

Table 5 Target tariffs - Sewerage charges (nominal dollars)

	2012-13	2013-14	2014-15
Sewerage Fixed – Per Equivalent Tenement (ET)	\$477.00	\$506.00	\$536.00

Properties assessed as greater than 1ET will have their target tariff increased proportionally.

Table 6 Target tariffs - Vacant land service charges (nominal dollars)

	2012-13	2013-14	2014-15
Water	\$286.00	\$303.00	\$322.00
Sewerage	\$286.20	\$303.00	\$321.60

Table 7 Target tariffs - Motor Home Dump Points (nominal dollars)

	2012-13	2013-14	2014-15
Fixed water	\$286.00	\$303.00	\$322.00
Variable water (\$/kL)	\$0.9000	\$0.9234	\$0.9474
Fixed sewerage	\$477.00	\$506.00	\$536.00

The fixed water target tariff applies to a standard 20 mm connection. The fixed water tariff for larger connections for each year of the regulatory period is calculated by applying the connection size usage ratios contained in Table 3.

Table 8 Target tariffs – Limited water supply customers (nominal dollars)

Water connection size	2012-13	2013-14	2014-15
20 mm	\$346.05	\$366.81	\$388.82

Schedule 3 - Miscellaneous fees and charges (nominal dollars)

Type of charge	Details	2012-13	2013-14	2014-15
Connections and Disconnections¹				
Standard 20 mm Water Connection	New water service connections or a relocation of a water connection	\$2 344.00	\$2 404.94	\$2 467.47
>20 mm Water Connection	New water service connections or a relocation of a water connection	POA	POA	POA
Standard 100 mm Sewerage Connection	New sewerage service connections or relocation of a sewerage connection	\$2 292.00	\$2 351.59	\$2 412.73
>100 mm Sewerage Connection	New sewerage service connections or relocation of a sewerage connection	POA	POA	POA
Disconnection/Capping Fee	Disconnecting the service to the main and capping the service connection	\$309.00	\$317.03	\$325.28
Meter Installations				
20 mm meter	Supply and installation of meter	\$289.00	\$296.51	\$304.22
>20 mm meter	Supply and installation of meter	POA	POA	POA
Fire Service Connection				
	New fire service connection - Stand alone or combined with new water service	POA	POA	POA
Water Metering Fees				
Special Read	The one off read of the meter outside the normal reading cycle, e.g. when there is change in property ownership	\$81.00	\$83.11	\$85.27
Meter Assessment (testing on-site)	Undertaking an initial flow test of a water meter with a measured quantity of water	\$81.00	\$83.11	\$85.27
Meter Testing (off site)	Undertaking an accredited, calibrated test of a water meter, payable only if the meter is found to be working correctly	POA	POA	POA
Meter Relocation (< 3 meters)	The relocation of an existing water meter at the property	\$397.00	\$407.32	\$417.91
Meter Relocation (> 3 meters)	The relocation of an existing water meter at the property	POA	POA	POA
Meter down sizing	This represents the costs of replacing an existing water meter with a smaller water meter.	\$330.00	\$338.58	\$347.38
Sundry Fees				
Service Locator Fee – business hours	Fee charged for staff to locate and advise external parties (utility companies and contractors, etc) where water and sewerage infrastructure is located.	\$109.00	\$111.83	\$114.74

Type of charge	Details	2012-13	2013-14	2014-15
Right to Information Requests	This represents access to information held by State Government departments, ministers, councils or authorities within the guidelines of the <i>Right to Information Act 2009</i>	25 fee units	25 fee units	25 fee units
Inspection Costs	This fee represents where another utility or development may be working around our pipes and we need to be on site to ensure that what they're doing will not affect our services	\$/hr	\$/hr	\$/hr
Pressure and Flow Testing	This occurs where a developer may need to know the pressure/flow that could be provided to a proposed development before proceeding	POA	POA	POA
Section 56ZQ Request	This represents the cost of assessing, processing and issuing a Certificate of the Corporation Rights or Powers over Land	25 fee units	25 fee units	25 fee units
Property Information Plan	This represents the cost of producing a Property Information Plan that details the Ben Lomond Water's services surrounding a property	\$11.00	\$11.29	\$11.58
Restriction Charge	The fee represents the cost in the removal of a device used to restrict the supply of water	\$109.00	\$111.83	\$114.74
Backflow Prevention Management	Administration of boundary backflow devices	POA	POA	POA
Chargeable Works	This fee represents the cost of providing any other services requested by the customer, sundry works, or testing, relating the regulated services and not covered by another charge (excluding private works)	POA	POA	POA

Notes:

1. The following factors will be taken into consideration when determining whether a connection is standard or not:

- are ease of construction;
- length of service line;
- ease of access; and
- above ground/below ground services.

Non-standard water and sewerage connections will be charged on a POA (Price on Application) basis.

Schedule 4 - Trade Waste Charges

Charges by customer category and type of charge (nominal dollars)¹

Description	Fee	Category 1	Category 2
General charges²			
Application fee	\$/unit	\$114	\$228
Management fee	\$/annum	\$200	\$291
Sampling	\$/unit	At cost	At cost
Fixed usage charge – compliant	\$/annum	\$377	\$1 284
Fixed usage charge – non-compliant	\$/annum	\$3 770	\$12 840
Volumetric charge			
Volumetric charge	\$/kL	Included in fixed usage charge	
Mass Load Charge - Primary Charging Parameter Rate			
Biochemical oxygen demand (BOD)	\$/kg		
Total suspended solids (TSS)	\$/kg		
Total kjeldahl nitrogen (TKN)	\$/kg		
Oxidised sulphur (OS) expressed as S	\$/kg	Included in fixed usage charge	
Total phosphorous (TP)	\$/kg		
Sodium (Na) in restricted catchments only	\$/kg		
Non-compliance charges			
Exceedance charge – non-compliance with acceptance criteria or deemed status criteria	\$/kg or fixed	10 times fixed usage charge	
Non-compliance – recovery of additional costs	\$	At cost eg. sampling, analysis, investigation, damaged infrastructure reinstatement or replacement, effluent and/or biosolids disposal, reporting and legal costs.	

Notes:

- 1 These charges are to apply to 2012-13. The charges are to be increased by 2.6% in each of 2013-14 and 2014-15 to account for inflation.
- 2 Other charges may be levied where Ben Lomond Water has incurred a cost in relation to the provision of the trade waste services for the benefit of the customer, or the premises.



**INVESTIGATION INTO WATER AND SEWERAGE
INDUSTRY PRICING POLICIES**

**CRADLE MOUNTAIN WATER - WATER AND
SEWERAGE SERVICES PRICE DETERMINATION**

1 JULY 2012 – 30 JUNE 2015

CONTENTS

- 1. EFFECTIVE PERIOD**
- 2. APPLICATION**
- 3. PURPOSE**
- 4. DEFINITIONS AND INTERPRETATION**
- 5. PRICE AND SERVICE PLAN REQUIREMENTS**
 - Schedule 1
 - Schedule 2
 - Schedule 3
 - Schedule 4

The Tasmanian Economic Regulator (the Regulator), having undertaken an investigation into the pricing policies of Cradle Mountain Water in regard to its provision of regulated water and sewerage services on mainland Tasmania, in accordance with the *Water and Sewerage Industry Act 2008*, makes the following Determination under Section 66 of the Act.

The Determination is to take effect from 1 July 2012.

Dated: 28 May 2012

A handwritten signature in black ink, appearing to read 'G Appleyard', written in a cursive style.

Glenn Appleyard
CHAIRMAN
TASMANIAN ECONOMIC REGULATOR

1. Effective period

This Determination takes effect on 1 July 2012 and ceases to have effect after 30 June 2015.

2. Application

This Determination applies to the Tasmanian Water and Sewerage Corporation (North-Western Region) Pty Limited (ACN 133 655 008) trading as Cradle Mountain Water in respect of the regulated services that Cradle Mountain Water carries on within Tasmania during the period of this Determination.

In accordance with section 67(7) of the *Water and Sewerage Industry Act 2008*, this determination is binding on Cradle Mountain Water.

3. Purpose

The purpose and reasons for the making of this Determination are to:

- a) specify the prices which Cradle Mountain Water may charge for regulated services during the regulatory period or the manner in which such prices are to be calculated or otherwise determined; and
- b) reflect the achievement of the Regulator's obligations, and respective price determination requirements, under the *Water and Sewerage Industry Act 2008* and *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*.

4. Definitions and interpretation

- a) Unless the contrary intention appears, an expression used in this Determination has the same meaning as it has in the *Water and Sewerage Industry Act 2008*, the *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011* or in the Tasmanian Water and Sewerage Industry Customer Service Code.
- b) Any question arising from the interpretation of this Determination shall be determined by the Regulator.

5. Price and Service Plan requirements

Cradle Mountain Water, in its Price and Service Plan, must:

- a) reflect the recommendations of the 2012 Water and Sewerage Industry Price Determination Investigation Final Report as released by the Regulator;
- b) apply prices calculated in line with the content of Schedules 1 and 2 to this Determination;
- c) apply prices for miscellaneous services in line with the content of Schedule 3 to this Determination; and
- d) apply trade waste charges in line with the content of Schedule 4 to this Determination.

This Determination is administered by the Regulator.

Schedule 1

Water charges

Determining fixed and variable charges in each year of the regulatory period

Term	Meaning within the context of this document
\$PC	Price constraint dollar value increase - \$50 multiplied by applicable CSUR for all transitional tariff reform zones except Zone A (Burnie), with \$75 multiplied by applicable CSUR for Zone A (Burnie).
%PC	Price constraint percentage increase - 0.1 (or 10 per cent) for all transitional tariff reform zones.
AC	Assumed Consumption of 200kL per year for a 20mm connection multiplied by CSUR
CSUR	Connection size usage ratio as defined in Table 3 in Schedule 2
FC _{0,1,2,3}	Fixed charge in each zone in years 2011-12 to 2014-15
FC _{+1,+2,+3}	The applicable fixed charge in years 2012-13 to 2014-15 after an adjustment (if required) is made to FC _{1,2,3} to ensure the price constraint is not breached. If applicable, FC _{+1,+2,+3} supersedes FC _{1,2,3}
FCi _{1,2}	Initial fixed charge after removal of free water allowance from existing two-part price, or conversion to two-part pricing, but before application of price constraint in 2012-13 and 2013-14.
FCTT _{1,2,3}	Fixed charge target tariff as defined in Table 2 in Schedule 2 in years 2012-13 to 2014-15 multiplied by CSUR
FWA _{0,1}	Annual free water allowance (kL per year) in each zone in years 2011-12 to 2012-13. (FWA ₀ is defined in Table 14 in Schedule 2)
MFC _{0,1,2}	Minimum fixed charge or (minimum charge) for water in each zone in years 2011-12 to 2014-15. MFC ₀ is defined in Table 14 in Schedule 2.
VC _{0,1,2,3}	Variable charge in each zone in years 2011-12 to 2014-15. VC ₀ is defined in Table 14 in Schedule 2)
VCi _{2,3}	Variable charge increment in each zone in years 2013-14 to 2014-15
VCTT _{1,2,3}	Variable charge target tariff as defined in Table 5 in Schedule 2 in years 2012-13 to 2014-15
WC _{0,1,2}	Total of fixed and variable water charges based on AC usage in each zone in years 2011-12 to 2014-15.

Water variable charges

The variable charge for all connection sizes, in each transitional tariff reform zone, in each year of the regulatory period, is calculated using a 20mm connection with 200kL water usage per year and a \$50 (\$75 for Zone A (Burnie)) increase per year.

(1) *Transitional tariff reform zones **B** (Central Coast), **C** (Circular Head), **E** (Kentish), **F** (King Island), **G** (Latrobe) **H** (Waratah/Wynyard) and **I** (West Coast) **ONLY***

(a) 2012-13

$$WC_0 = MFC_0 + ((\text{greater of } 0 \text{ and } (AC - FWA_0)) \times VC_0)$$

if $FWA_0 = 0$

$$\text{then } WC_0 = MFC_0 + (AC \times VC_0)$$

$$VC_1 = (WC_0 + \$50 - FCTT_1) / AC$$

if $VC_1 > VCTT_1$

$$\text{then } VC_1 = VCTT_1$$

(b) 2013-14

$$VCi_2 = (FCTT_1 + \$50 - FCTT_2) / AC$$

$$VC_2 = VC_1 + VCi_2$$

if $VC_2 > VCTT_2$

$$\text{then } VC_2 = VCTT_2$$

(c) 2014-15

$$VCi_3 = (FCTT_2 + \$50 - FCTT_3) / AC$$

$$VC_3 = VC_2 + VCi_3$$

if $VC_3 > VCTT_3$

$$\text{then } VC_3 = VCTT_3$$

(2) *Transitional tariff reform zone **D** (Devonport) **ONLY***

(a) 2012-13

if $(MFC_0 + \$50 - FCTT_1) \leq 0$

$$\text{then } VC_1 = VC_0$$

(b) 2013-14

$$MFC_1 = MFC_0 + \$50$$

$$\text{if } (MFC_1 + \$50 - FCTT_2) \leq 0$$

$$\text{then } VC_2 = VC_1$$

(c) 2014-15

$$MFC_2 = MFC_1 + \$50$$

$$\text{if } (MFC_2 + \$50 - FCTT_3) \leq 0$$

$$\text{then } VC_3 = VC_2$$

$$\text{if } (MFC_2 + \$50 - FCTT_3) > 0$$

then

$$VCi_3 = (MFC_2 + \$50 - FCTT_3) / AC$$

$$VC_3 = VC_2 + VCi_3$$

$$\text{if } VC_3 > VCTT_3$$

$$\text{then } VC_3 = VCTT_3$$

(3) *Transitional tariff reform zone A (Burnie) ONLY*

(a) 2012-13

$$WC_0 = MFC_0 + ((\text{greater of } 0 \text{ and } (AC - FWA_0)) \times VC_0)$$

$$\text{if } (WC_0 + \$75 - FCTT_1) \leq 0$$

$$\text{then } VC_1 = VC_0$$

$$\text{if } VC_1 > VCTT_1$$

$$\text{then } VC_1 = VCTT_{12-13}$$

(b) 2013-14

$$WC_1 = WC_0 + \$75 + (\text{greater of } 0 \text{ and } ((AC - FWA_1) \times VC_1))$$

$$VC_2 = (WC_1 + \$75 - FCTT_2) / AC$$

$$\text{If } VC_2 > VCTT_2$$

$$\text{Then } VC_2 = VCTT_2$$

(c) 2014-15

$$WC_2 = WC_1 + \$75$$

$$VC_3 = (WC_2 + \$75 - FCTT_3) / AC$$

if $VC_3 > VCTT_3$

then $VC_3 = VCTT_3$

Variable charges are listed in Table 1 of Schedule 2.

Removal of free water allowances from existing two-part pricing, or conversion to two-part pricing

(1) *Transitional tariff reform zones **B** (Central Coast), **C** (Circular Head), **E** (Kentish), **F** (King Island), **G** (Latrobe) and **I** (West Coast) **ONLY***

(a) 2012-13

$$FCi_1 = FC_0 - \text{lower of } (AC \text{ and } FWA_0) \times VC_1$$

$$FCi_1 \geq 0$$

if $FWA_0 = 0$

then

$$FCi_1 = FC_0 - (AC \times VC_1)$$

$$FCi_1 \geq 0$$

(2) *Transitional tariff reform zone **A** (Burnie) **ONLY***

(b) 2012-13

Transitional tariff reform zone A (Burnie) will maintain a free water allowance in 2012-13 calculated as follows:

$$FWA_1 = (\text{lower of } (AC) \text{ and } FWA_0)$$

(c) 2013-14

$$FCi_2 = (FC_1 \text{ or } FC_{+1}) - \text{lower of } (AC \text{ and } FWA_1) \times VC_2$$

$$FCi_2 \geq 0$$

Water fixed charges

Determining fixed water charge in each year of the regulatory period

(1) *Transitional tariff reform zones **B** (Central Coast), **C** (Circular Head), **E** (Kentish), **F** (King Island), **G** (Latrobe) **and I** (West Coast) **ONLY***

(a) 2012-13

if $FC_{i1} > FCTT_1$

then $FC_1 = FC_{i1}$

if $FC_{i1} < FCTT_1$ and

- if $(FCTT_1 - FC_{i1}) > \text{greater of } (\$PC \text{ or } (FC_{i1} \times \%PC))$
then $FC_1 = \text{greater of } ((FC_{i1} + \$PC) \text{ or } (FC_{i1} \times (1 + \%PC)))$
- If $(FCTT_1 - FC_{i1}) < \text{greater of } (\$PC \text{ or } (FC_{i1} \times \%PC))$
then $FC_1 = FCTT_1$

if $(FC_1 + (AC \times VC_1)) > \text{greater of } ((FC_0 + (AC \times VC_0) + \$PC) \text{ and } ((FC_0 + (AC \times VC_0)) \times (1 + \%PC)))$

then

$FC_{+1} = FC_1 - ((FC_1 + (AC \times VC_1)) - \text{greater of } ((FC_0 + (AC \times VC_0) + \$PC) \text{ and } ((FC_0 + (AC \times VC_0)) \times (1 + \%PC))))$

(2) *Transitional tariff reform zone **E** (Kentish) for 20mm connections **ONLY***

(a) 2012-13

if $FC_{i1} > FCTT_1$

then $FC_1 = FCTT_1$

if $FC_{i1} < FCTT_1$ and

- if $(FCTT_1 - FC_{i1}) > \text{greater of } (\$PC \text{ or } (FC_{i1} \times \%PC))$
then $FC_1 = \text{greater of } ((FC_{i1} + \$PC) \text{ or } (FC_{i1} \times (1 + \%PC)))$
- if $(FCTT_1 - FC_{i1}) < \text{greater of } (\$PC \text{ or } (FC_{i1} \times \%PC))$
then $FC_1 = FCTT_1$

if $(FC_1 + (AC \times VC_1)) > \text{greater of } ((FC_0 + (AC \times VC_0) + \$PC) \text{ and } ((FC_0 + (AC \times VC_0)) \times (1 + \%PC))$

then

$FC_{+1} = FC_1 - ((FC_1 + (AC \times VC_1)) - \text{greater of } ((FC_0 + (AC \times VC_0) + \$PC) \text{ and } ((FC_0 + (AC \times VC_0)) \times (1 + \%PC))))$

(3) *Transitional tariff reform zones A (Burnie) D (Devonport) and H (Waratah/Wynyard)*

(a) 2012-13

if $FC_0 > FCTT_1$

then $FC_1 = FC_0$

if $FC_0 < FCTT_1$ and

- if $(FCTT_1 - FC_0) > \text{greater of } (\$PC \text{ or } (FC_0 \times \%PC))$
then $FC_1 = \text{greater of } ((FC_0 + \$PC) \text{ or } (FC_0 \times (1 + \%PC)))$
- if $((FCTT_1) - FC_0) < \text{greater of } (\$PC \text{ or } (FC_0 \times \%PC))$
then $FC_1 = FCTT_1$

if $(FC_1 + (AC \times VC_1)) > \text{greater of } ((FC_0 + (AC \times VC_0) + \$PC) \text{ and } ((FC_0 + (AC \times VC_0)) \times (1 + \%PC))$

then

$FC_{+1} = FC_1 - ((FC_1 + (AC \times VC_1)) - \text{greater of } ((FC_0 + (AC \times VC_0) + \$PC) \text{ and } ((FC_0 + (AC \times VC_0)) \times (1 + \%PC))))$

(4) *2013-14 - All transitional tariff reform zones except Zone A (Burnie)*

(a) 2013-14

if $(FC_1 \text{ or } FC_{+1}) = FCTT_1$

then $FC_2 = FCTT_2$

if $(FC_1 \text{ or } FC_{+1}) > FCTT_2$

then $FC_2 = (FC_1 \text{ or } FC_{+1})$

if $(FC_1 \text{ or } FC_{+1}) < FCTT_2$ and

- if $((FCTT_2 - (FC_1 \text{ or } FC_{+1})) > (\text{greater of } \$PC \text{ or } ((FC_1 \text{ or } FC_{+1}) \times \%PC))$
then $FC_2 = \text{greater of } ((FC_1 \text{ or } FC_{+1}) + \$PC) \text{ or } ((FC_1 \text{ or } FC_{+1}) \times (1 + \%PC))$

- if $((FCTT_2 - (FC_1 \text{ or } FC_{+1})) < \text{greater of } (\$PC \text{ or } ((FC_1 \text{ or } FC_{+1}) \times \%PC)))$
then $FC_2 = FCTT_2$

if $(FC_2 + (AC \times VC_2)) > \text{greater of } (((FC_1 \text{ or } FC_{+1}) + (AC \times VC_1) + \$PC) \text{ and } (((FC_1 \text{ or } FC_{+1}) + (AC \times VC_1)) \times (1 + \%PC)))$

then

$FC_{+2} = FC_2 - ((FC_2 + (AC \times VC_2)) - \text{greater of } (((FC_1 \text{ or } FC_{+1}) + (AC \times VC_1) + \$PC) \text{ and } (((FC_1 \text{ or } FC_{+1}) + (AC \times VC_1)) \times (1 + \%PC))))$

(5) *2013-14 transitional tariff reform Zone A (Burnie)*

(a) 2013-14

if $FC_{i2} = FCTT_1$

then $FC_2 = FCTT_2$

if $FC_{i2} > FCTT_2$

then $FC_2 = FC_{i2}$

if $FC_{i2} < FCTT_2$ and

- if $((FCTT_2 - FC_{i2}) > \text{greater of } (\$PC \text{ or } (FC_{i2} \times \%PC)))$
then $FC_2 = \text{greater of } ((FC_{i2} + \$PC) \text{ or } (FC_{i2} \times (1 + \%PC)))$
- if $((FCTT_2 - FC_{i2}) < \text{greater of } (\$PC \text{ or } (FC_{i2} \times \%PC)))$
then $FC_2 = FCTT_2$

if $(FC_2 + (AC \times VC_2)) > \text{greater of } ((FC_{i2} + (AC \times VC_1) + \$PC) \text{ and } ((FC_{i2} + (AC \times VC_1)) \times (1 + \%PC)))$

then

$FC_{+2} = FC_2 - ((FC_2 + (AC \times VC_2)) - \text{greater of } ((FC_{i2} + (AC \times VC_1) + \$PC) \text{ and } ((FC_{i2} + (AC \times VC_1)) \times (1 + \%PC))))$

(b) 2014-15

if $(FC_2 \text{ or } FC_{+2}) = FCTT_2$

then $FC_3 = FCTT_3$

if $(FC_2 \text{ or } FC_{+2}) > FCTT_3$ and

- if $((FC_2 \text{ or } FC_{+2}) - FCTT_3) \leq ((FC_2 \text{ or } FC_{+2}) \times 0.05)$

then $FC_3 = FCTT_3$

- if $((FC_2 \text{ or } FC_{+2}) - FCTT_3) > ((FC_2 \text{ or } FC_{+2}) \times 0.05)$
then $FC_3 = FC_2 \times 0.95$

if $FC_2 \text{ or } FC_{+2} < FCTT_3$ and

- if $(FCTT_3 - (FC_2 \text{ or } FC_{+2})) > \text{greater of } (\$PC \text{ or } ((FC_2 \text{ or } FC_{+2}) \times \%PC))$
then $FC_3 = \text{greater of } (((FC_2 \text{ or } FC_{+2}) + \$PC) \text{ or } ((FC_2 \text{ or } FC_{+2}) \times (1 + \%PC)))$
- if $(FCTT_3 - (FC_2 \text{ or } FC_{+2})) < \text{greater of } (\$PC \text{ or } ((FC_2 \text{ or } FC_{+2}) \times \%PC))$
then $FC_3 = FCTT_3$

if $(FC_3 + (AC \times VC_3)) > \text{greater of } (((FC_2 \text{ or } FC_{+2}) + (AC \times VC_2) + \$PC) \text{ and } (((FC_2 \text{ or } FC_{+2}) + (AC \times VC_2)) \times (1 + \%PC)))$

then

$FC_{+3} = FC_3 - ((FC_3 + (AC \times VC_3)) - \text{greater of } (((FC_2 \text{ or } FC_{+2}) + (AC \times VC_2)) + \$PC) \text{ and } (((FC_2 \text{ or } FC_{+2}) + (AC \times VC_2)) \times (1 + \%PC)))$

(6) *Strata title schemes - converting to two-part pricing (determining initial fixed charge)*

$FC_0 = WC_0 - (200kL \times CSUR \times UEP \times VCTT_1)$

UEP = The lot owner's proportion of the total strata unit entitlements and is calculated as follows:

UE_o / UE_{total}

UE_o = Unit entitlement of lot owner

UE_{total} = Sum of all unit entitlements in the strata scheme

Where the strata unit entitlement is not available, unit entitlements will be allocated equally, with a default position of 1 UE per lot.

(7) *Removing the fire service charge from the fixed water charge*

if $FSCTT_1 > (FC_0 + FSC_{-1})$

then $FSC_0 = (FC_0 + FSC_{-1})$

$FC_{0+} = 0$

otherwise $FSC_0 = FSCTT_1$

$$FC_{0+} = (FC_0 + FSC_{-1}) - FSC_0$$

FSC_0 = Initial fire service charge (basis for determining fire service charge (FSC_1) in 2012-13

FSC_{-1} = Fire service charge in 2011-12 (if applicable)

FC_0 = Initial applicable fixed charge in 2012-13 prior to removal of fire service charge and prior to application of the price constraint.

FC_{0+} = Initial fixed charge in 2012-13 after removal of fire service charge and prior to applying the price constraint

FSC_{TT_1} = Fire service target tariff in 2012-13 x CSUR

Fire Service Charges

Determining fire service charges in each year of the regulatory period

a) 2012-13

FSC_0 = Fire service charge in 2011-12

FSC_1 = Fire service charge in 2012-13

FSC_{TT_1} = Fire service target tariff for 2012-13 x CSUR

if $FSC_0 < FSC_{TT_1}$ and

if $(FSC_{TT_1} - FSC_0) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_0 \times 1.1))$

then $FSC_1 = (\text{greater of } (FSC_0 + (\$50 \times \text{CSUR})) \text{ or } (FSC_0 \times 0.1))$

if $(FSC_{TT_1} - FSC_0) \leq (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_0 \times 0.1))$

then $FSC_1 = FSC_{TT_1}$

b) 2013-14

FSC_2 = Fire service charge in 2013-14

FSC_{TT_2} = Fire service target tariff for 2013-14 x CSUR

if $FSC_1 \leq FSC_{TT2}$ and

if $(FSTT_2 - FSC_1) > (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_1 \times 0.1))$

then $FSC_2 = (\text{greater of } (FSC_1 + (\$50 \times CSUR)) \text{ or } (FSC_1 \times 1.1))$

if $(FSC_{TT2} - FSC_1) \leq (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_1 \times 0.1))$

then $FSC_2 = FSC_{TT2}$

c) 2014-15

FSC_3 = Fire service charge in 2014-15

FSC_{TT3} = Fire service target tariff for 2014-15 x CSUR

if $FSC_2 \leq FSC_{TT3}$ and

if $(FSTT_3 - FSC_2) > (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_2 \times 0.1))$

then $FSC_3 = (\text{greater of } (FSC_2 + (\$50 \times CSUR)) \text{ or } (FSC_2 \times 1.1))$

if $(FSC_{TT3} - FSC_2) \leq (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_2 \times 0.1))$

then $FSC_3 = FSC_{TT3}$

Sewerage charges

(1) *Determining fixed charges in each year of the regulatory period*

(a) 2012-13

if $SC_0 > SCTT_1$

then $SC_1 = SC_0$

SC_0 = Sewerage charge in 2011-12

$SCTT_1$ = Sewerage charge target tariff in 2012-13 x applicable ET

SC_1 = Sewerage charge in 2012-13

ET = each equivalent tenement (ET) equals one standard sewerage connection – properties will be assessed to determine the applicable number of ETs

if $SC_0 < SCTT_1$ and

- if $(SCTT_1 - SC_0) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_0 \times 0.1))$
 then $SC_1 = (\text{greater of } (SC_0 + (\$50 \times \text{applicable ET})) \text{ or } (SC_0 \times 1.1))$
- if $(SCTT_1 - SC_0) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_0 \times 0.1))$
 then $SC_1 = SCTT_1$

(b) 2013-14

if $SC_1 > SCTT_2$

then $SC_2 = SC_1$

SC_2 = Sewerage water charge in 2013-14

$SCTT_2$ = Sewerage charge target tariff in 2013-14 x applicable ET

if $SC_1 < SCTT_2$ and

- if $(SCTT_2 - SC_1) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_1 \times 0.1))$
 then $SC_2 = (\text{greater of } (SC_1 + (\$50 \times \text{applicable ET})) \text{ or } (SC_1 \times 1.1))$
- if $(SCTT_2 - SC_1) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_1 \times 0.1))$
 then $SC_2 = SCTT_2$

(c) 2014-15

if $SC_2 > SCTT_3$ and

- if $(SC_2 - SCTT_3) \leq (SC_2 \times 0.05)$
 then $SC_3 = SCTT_3$
- if $(SC_2 - SCTT_3) > (SC_2 \times 0.05)$
 then $SC_3 = SC_2 \times 0.95$

SC_3 = Sewerage water charge in 2014-15

$SCTT_3$ = Sewerage charge target tariff in 2014-15 x applicable ET

if $SC_2 < SCTT_3$ and

- if $(SCTT_3 - SC_2) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_2 \times 0.1))$
 then $SC_3 = (\text{greater of } (SC_2 + (\$50 \times \text{applicable ET})) \text{ or } (SC_2 \times 1.1))$
- if $(SCTT_3 - SC_2) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_2 \times 0.1))$
 then $SC_3 = SCTT_3$

(2) *Removing trade waste charges from sewerage charges*

if $TWTT_1 > SC_0$

then $TWC_0 = SC_0$

$SC_{0+} = 0$

otherwise $TWC_0 = TWTT_1$

$SC_{0+} = SC_0 - TWC_0$

TWC_0 = Initial trade waste charge (basis for determining trade waste charge (TWC_1) in 2012-13)

SC_0 = 2011-12 one part sewerage and trade waste charge.

SC_{0+} = Initial sewerage fixed charge in 2012-13 prior to applying the price constraint and basis for determining sewerage charge (SC_1) in 2012-13

$TWTT_1$ = Trade waste target tariff in 2012-13 x applicable ET

Trade waste

(1) *Determining trade waste charges in each year of the regulatory period*

a) 2012-13

$TWTT_1$ = trade waste target tariff for 2012-13 x applicable ET

if $TWC_0 < TWTT_1$ and

if $(TWTT_1 - TWC_0) > (\text{greater of } (\$50 \times \text{ET}) \text{ or } (TWC_0 \times 1.1))$

then $TWC_1 = (\text{greater of } (TWC_0 + (\$50 \times \text{ET})) \text{ or } (TWC_0 \times 0.1))$

if $(TWTT_1 - TWC_0) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_0 \times 0.1))$

then $TWC_1 = TWTT_1$

b) 2013-14

TWC_2 = trade waste charge in 2013-14

$TWTT_2$ = trade waste target tariff for 2013-14 x applicable ET

if $TWC_1 \leq TWTT_2$ and

if $(TWTT_2 - TWC_1) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_1 \times 0.1))$

then $TWC_2 = (\text{greater of } (TWC_1 + (\$50 \times \text{applicable ET})) \text{ or } (TWC_1 \times 1.1))$

if $(TWTT_2 - TWC_1) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_1 \times 0.1))$

then $TWC_2 = TWTT_2$

c) 2014-15

TWC_3 = trade waste charge in 2014-15

$TWTT_3$ = trade waste target tariff for 2014-15 x applicable ET

if $TWC_2 \leq TWTT_3$ and

if $(TWTT_3 - TWC_2) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_2 \times 0.1))$

then $TWC_3 = (\text{greater of } (TWC_2 + (\$50 \times \text{applicable ET})) \text{ or } (TWC_2 \times 1.1))$

if $(TWTT_3 - TWC_2) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_2 \times 0.1))$

then $TWC_3 = TWTT_3$

Schedule 2 – Prices

Table 1 Transitional water variable charges (nominal dollars)

Transitional tariff reform zone	Financial year	Variable charge (\$/kL)
Zone A (previously Burnie City Council)	2012-13	0.6050
	2013-14	0.1872
	2014-15	0.4399
Zone B (previously Central Coast Council)	2012-13	0.4794
	2013-14	0.6140
	2014-15	0.7417
Zone C (previously Circular Head Council)	2012-13	0.9000
	2013-14	0.9234
	2014-15	0.9474
Zone D (previously Devonport City Council)	2012-13	0.5456
	2013-14	0.5456
	2014-15	0.6097
Zone E (previously Kentish Council)	2012-13	0.9000
	2013-14	0.9234
	2014-15	0.9474
Zone F (previously King Island Council)	2012-13	0.3076
	2013-14	0.4422
	2014-15	0.5699
Zone G (previously Latrobe Council)	2012-13	0.6448
	2013-14	0.7794
	2014-15	0.9071
Zone H (previously Waratah/Wynyard Council)	2012-13	0.7248
	2013-14	0.8594
	2014-15	0.9474
Zone I (previously West Coast Council)	2012-13	0.3526
	2013-14	0.4872
	2014-15	0.6149

Notes:

1. These transitional water variable charges apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios (CSUR) contained in Table 3 to calculate their individual transitional water volume charges for each year of the regulatory period.
2. There is a free water allowance in Zone A in 2012-13 which is removed from 1 July 2013. Therefore charges in 2013-14 and 2014-15 are for total water usage without any free water allowance. The method for calculating fixed and variable charges for Zone A customers for each year of the first regulatory period is contained in Schedule 1 of this Price Determination.

Table 2 Target tariffs – Fixed water charges (nominal dollars)

Connection size	2012-13	2013-14	2014-15
20 mm	\$384.49	\$407.56	\$432.02

These tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 3 Connection size usage ratio

Connection size (mm)	Multiplier
20	1.00
25	1.56
30	2.25
32	2.56
40	4.00
50	6.25
65	10.56
75	14.06
80	16.00
100	25.00
150	56.25
200	100.00

Table 4 Target tariffs – Fixed water charges - new customer connections (nominal dollars)

Connection size	2012-13	2013-14	2014-15
20 mm	\$410.40	\$421.07	\$432.02

These tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 5 Target tariffs – Variable water charges (nominal dollars)

	2012-13	2013-14	2014-15
Potable water variable charge (\$/kL)	\$0.9000	\$0.9234	\$0.9474
Non-potable water variable charge (\$/kL)	\$0.7200	\$0.7387	\$0.7579

Non-potable water represents the 'Limited Water Quality' target tariff.

Table 6 Target tariffs - Fire service fixed charge (nominal dollars)

Fire connection size	2012-13	2013-14	2014-15
20 mm	\$96.12	\$101.89	\$108.00

These target tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 7 Target tariffs - Fire service fixed charge – new customer (nominal dollars)

Fire connection size	2012-13	2013-14	2014-15
20 mm	\$102.60	\$105.27	\$108.00

These target tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 8 Target tariffs – Sewerage charges (nominal dollars)

	2012-13	2013-14	2014-15
Sewerage Fixed – Per Equivalent Tenement (ET)	\$595.97	\$631.72	\$669.63

Properties assessed as greater than 1ET will have their target tariff increased proportionally

Table 9 Target tariffs – Sewerage charges – new customer connections (nominal dollars)

	2012-13	2013-14	2014-15
Sewerage Fixed – Per Equivalent Tenement (ET)	\$636.12	\$652.66	\$669.63

Properties assessed as greater than 1ET will have their target tariff increased proportionally

Table 10 Target tariffs – Vacant land service charges (nominal dollars)

	2012-13	2013-14	2014-15
Water	\$384.49	\$407.56	\$432.02
Sewerage	\$357.58	\$379.03	\$401.78

Table 11 Target tariffs – Vacant land service charges – new customer connections (nominal dollars)

	2012-13	2013-14	2014-15
Water	\$410.40	\$421.07	\$432.02
Sewerage	\$381.67	\$391.60	\$401.78

Table 12 Target tariffs - Motor home dump points

	2012-13	2013-14	2014-15
Fixed water (nominal dollars)	\$384.49	\$407.56	\$432.02
Variable water (nominal dollars/kL)	\$0.9000	\$0.9234	\$0.9474
Fixed sewerage (nominal dollars)	\$595.97	\$631.72	\$669.63

The fixed water target tariff applies to a standard 20 mm connection. The fixed water tariff for larger connections for each year of the regulatory period is calculated by applying the connection size usage ratios contained in Table 3.

Table 13 Target tariffs – Limited water supply customers (nominal dollars)

Water connection size	2012-13	2013-14	2014-15
20 mm	\$346.05	\$366.81	\$388.82

Table 14 Water - initial variable charge, minimum (fixed) charge, and free water allowance, (nominal dollars)

Transitional tariff reform zone	Variable charge (\$/kL) VC ₀	Minimum (fixed) charge MFC ₀	Free Water Allowance (kL per year) FWA ₀
Zone A (previously Burnie City Council)	0.6050	295.00	400
Zone B (previously Central Coast Council)	1.1680	430.36	400
Zone C (previously Circular Head Council)	1.1030	364.60	50
Zone D (previously Devonport City Council)	0.5456	294.75	0
Zone E (previously Kentish Council)	1.3900	629.35	300
Zone F (previously King Island Council)	0.9500	396.00	200
Zone G (previously Latrobe Council)	0.8470	463.44	300
Zone H (previously Waratah/Wynyard Council)	0.5210	375.24	0
Zone I (previously West Coast Council)	0.0000	405.00	0

Schedule 3 - Miscellaneous fees and charges (nominal dollars)

Type of charge	Description	2012-13	2013-14	2014-15
Connections and Disconnections¹				
Standard 20 mm Water Connection ¹	This represents new water service connections to residential, or a relocation of a water connection.	\$2 450.24	\$2 513.95	\$2 579.31
>20 mm Water Connection	New water service connections or a relocation of a water connection	POA	POA	POA
Standard 100 mm Sewerage Connection ¹	This represents new sewerage service connections to residential, or relocation of sewerage connection.	\$2 319.20	\$2 379.50	\$2 441.37
>100 mm Sewerage Connection	New sewerage service connections or relocation of a sewerage connection	POA	POA	POA
Disconnection ¹	This represents the costs of disconnecting the service to the main and capping the service connection.	\$312.00	\$320.11	\$328.43
Meter Installations				
20 mm meter	Supply and installation of meter	\$289.00	\$296.51	\$304.22
>20 mm meter	Supply and installation of meter	POA	POA	POA
Fire Service Connection				
	New fire service connection - Stand alone or combined with new water service	POA	POA	POA
Water Metering				
Special Reads	This represents the costs of a one off read of the meter outside the normal reading cycle.	\$81.12	\$83.23	\$85.39
Meter Testing - Onsite	This represents the costs of undertaking an initial flow test of a water meter with a measured quantity of water.	\$81.12	\$83.23	\$85.39
Meter Testing - Offsite	This represents the costs of undertaking an accredited, calibrated test of a water meter, payable only if the meter is found to be working correctly.	POA	POA	POA
Meter Relocation (< 3 meters)	This represents the costs of relocating an existing water meter.	\$400.40	\$410.81	\$421.49
Meter Relocation (> 3 meters)	This represents the costs of relocating an existing water meter.	POA	POA	POA
Meter down sizing	This represents the costs of replacing an existing water meter with a smaller water meter.	\$330.00	\$338.58	\$347.38
Sundry Fees				
Service Locator Fee - business hours	This represents the fee for staff to locate and advise external parties (utility companies and contractors, etc) where water and sewerage infrastructure is located. Commonly also referred to as Dial before you Dig.	\$109.20	\$112.04	\$114.95

Type of charge	Description	2012-13	2013-14	2014-15
Right of Information Request	This represents access to information held by State Government departments, ministers, councils or authorities within the guidelines of the <i>Right to Information Act 2009</i>	25 fee units	25 fee units	25 fee units
Inspection Costs	This fee represents where another utility or developer may be working around our pipes and we need to be on site to ensure that what they're doing won't affect our services.	\$/hr	\$/hr	\$/hr
Pressure and Flow Testing	This occurs where a developer may need to know the pressure/flow that could be provided to a proposed development before proceeding.	POA	POA	POA
Section 56ZQ Request	This represents the costs of assessing, processing and issuing a Certificate of the Corporation Rights or Powers over Land.	25 fee units	25 fee units	25 fee units
Property Information Plan	This represents the Corporation costs of producing a Property Information Plan that details the Corporation services surrounding a property.	\$10.40	\$10.67	\$10.95
Restriction Charge	The fee represents the costs incurred in the removal of a device used to restrict the supply of water.	\$109.20	\$112.04	\$114.95
Backflow Prevention Management	Administration of boundary backflow devices.	POA	POA	POA
Chargeable Works	This fee represents the cost of providing any other services requested by the customer, sundry works, or testing, relating the regulated services and not covered by another charge (excluding private works)	POA	POA	POA

Notes:

- The following factors will be taken into consideration when determining whether a connection is standard or not:
 - are ease of construction;
 - length of service line;
 - ease of access; and
 - above ground/below ground services.

Non-standard water and sewerage connections will be charged on a POA (Price on Application) basis.

Schedule 4 - Trade Waste Charges

Trade waste charges by customer category and type of charge (nominal dollars)¹

Description	Fee	Category 1	Category 2
General charges²			
Application fee	\$/unit	\$114	\$228
Management fee	\$/annum	\$200	\$291
Sampling	\$/unit	At cost	At cost
Fixed usage charge: compliant	\$/annum	\$393	\$1 337
Fixed usage charge: non-compliant	\$/annum	\$3 930 or \$10.59/kL	\$13 370 or \$10.59/kL
Variable charge			
Variable rate charge (\$/kL)	\$/kL	Included in fixed usage charge	
Mass Load Charge - Primary Charging Parameter Rate			
Biological Oxygen Demand	\$/kg		
Total Suspended Solids	\$/kg		
Total Kjeldahl Nitrogen	\$/kg	Included in fixed usage charge	
Total Oxidised Sulphur	\$/kg		
Total Phosphorous	\$/kg		
Total Sodium	\$/kg		
Non-compliance charges			
Exceedance charge – non-compliance with acceptance criteria or deemed status criteria	\$/kg or fixed	10 times fixed usage charge	
Non-compliance – recovery of additional costs	\$	At cost eg. sampling, analysis, investigation, damaged infrastructure reinstatement or replacement, effluent and/or biosolids disposal, reporting and legal costs.	

Notes:

- 1 These charges are to apply to 2012-13. The charges are to be increased by 2.6% in each of 2013-14 and 2014-15 to account for inflation.
- 2 Other charges may be levied where Cradle Mountain Water has incurred a cost in relation to the provision of the trade waste services for the benefit of the customer, or the premises.



**INVESTIGATION INTO WATER AND SEWERAGE
INDUSTRY PRICING POLICIES**

**SOUTHERN WATER - WATER AND SEWERAGE
SERVICES PRICE DETERMINATION**

1 JULY 2012 – 30 JUNE 2015

CONTENTS

1. EFFECTIVE PERIOD

2. APPLICATION

3. PURPOSE

4. DEFINITIONS AND INTERPRETATION

5. PRICE AND SERVICE PLAN REQUIREMENTS

Schedule 1

Schedule 2

Schedule 3

Schedule 4

The Tasmanian Economic Regulator (the Regulator), having undertaken an investigation into the pricing policies of Southern Water in regard to its provision of regulated water and sewerage services on mainland Tasmania, in accordance with the *Water and Sewerage Industry Act 2008*, makes the following Determination under Section 66 of the Act.

The Determination is to take effect from 1 July 2012.

Dated: 28 May 2012

A handwritten signature in black ink, appearing to read 'G Appleyard', written in a cursive style.

Glenn Appleyard
CHAIRMAN
TASMANIAN ECONOMIC REGULATOR

1. Effective period

This Determination takes effect on 1 July 2012 and ceases to have effect after 30 June 2015.

2. Application

This Determination applies to the Tasmanian Water and Sewerage Corporation (Southern Region) Pty Limited (ACN 133 654 976) trading as Southern Water in respect of the regulated services that Southern Water carries on within Tasmania during the period of this Determination.

In accordance with section 67(7) of the *Water and Sewerage Industry Act 2008*, this determination is binding on Southern Water.

3. Purpose

The purpose and reasons for the making of this Determination are to:

- a) specify the prices which Southern Water may charge for regulated services during the regulatory period or the manner in which such prices are to be calculated or otherwise determined; and
- b) reflect the achievement of the Regulator's obligations, and respective price determination requirements, under the *Water and Sewerage Industry Act 2008* and *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*.

4. Definitions and interpretation

- a) Unless the contrary intention appears, an expression used in this Determination has the same meaning as it has in the *Water and Sewerage Industry Act 2008*, the *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011* or in the Tasmanian Water and Sewerage Industry Customer Service Code.
- b) Any question arising from the interpretation of this Determination shall be determined by the Regulator.

5. Price and Service Plan requirements

Southern Water, in its Price and Service Plan, must:

- a) reflect the recommendations of the 2012 Water and Sewerage Industry Price Determination Investigation Final Report as released by the Regulator;
- b) apply prices calculated in line with the content of Schedules 1 and 2 to this Determination;
- c) apply prices for miscellaneous services in line with the content of Schedule 3 to this Determination; and
- d) apply trade waste charges in line with the content of Schedule 4 to this Determination.

This Determination is administered by the Regulator.

Schedule 1

Water charges

Fixed charges

(1) *Converting to two part pricing (determining initial fixed charge)*

$$FC_0 = WC_{-1} - (200\text{kL} \times \text{CSUR} \times \text{VCTT}_1)$$

$$FC_0 \geq 0$$

WC_{-1} = 2011-12 one part water charge

FC_0 = Initial fixed charge (basis for determining fixed charge (FC_1) in 2012-13)

CSUR = Connection size usage ratio as defined in Table 3 in Schedule 2

$VCTT_1$ = Variable charge target tariff in 2012-13

(2) *Removing free water allowance from existing two part pricing (determining initial fixed charge)*

$$FC_0 = FC_{-1} - (200\text{kL} \times \text{CSUR} \times \text{VCTT}_1)$$

$$FC_0 \geq 0$$

FC_{-1} = 2011-12 fixed charge

FC_0 = Initial fixed charge (basis for determining fixed charge (FC_1) in 2012-13)

(3) *Strata title schemes - converting to two part pricing (determining initial fixed charge)*

$$FC_0 = WC_0 - (200\text{kL} \times \text{CSUR} \times \text{UEP} \times \text{VCTT}_1)$$

UEP = The lot owner's proportion of the total strata unit entitlements and is calculated as follows:

$$\text{UE}_o / \text{UE}_{\text{total}}$$

UE_o = Unit entitlement of lot owner

UE_{total} = Sum of all unit entitlements in strata scheme

Where the strata unit entitlement is not available, unit entitlements will be allocated equally, with a default position of 1 UE per lot.

(4) *Removing the fire service charge from the fixed water charge*

if $FSC_{TT_1} > (FC_0 + FSC_{-1})$

then $FSC_0 = (FC_0 + FSC_{-1})$

$FC_{0+} = 0$

otherwise $FSC_0 = FSC_{TT_1}$

$FC_{0+} = (FC_0 + FSC_{-1}) - FSC_0$

FSC_0 = Initial fire service charge (basis for determining fire service charge (FSC_1) in 2012-13)

FSC_{-1} = Fire service charge in 2011-12 (if applicable)

FC_0 = Initial applicable fixed charge in 2012-13 prior to removal of fire service charge and prior to applying the price constraint.

FC_{0+} = Initial fixed charge in 2012-13 after removal of fire service charge and prior to applying the price constraint.

FSC_{TT_1} = Fire service target tariff in 2012-13 x CSUR

Determining fixed charges in each year of the regulatory period

(a) 2012-13

if $FC_0 > FCTT_1$

then $FC_1 = FC_0$

FC_0 = Fixed charge in 2011-12 (if existing two part pricing without free water allowance) or FC_0 calculated in (1) or (2) above.

FC_1 = Fixed charge in 2012-13

$FCTT_1$ = Fixed charge target tariff in 2012-13 x CSUR

if $FC_0 < FCTT_1$ and

- if $(FCTT_1 - FC_0) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_0 \times 0.1))$

then $FC_1 = (\text{greater of } (FC_0 + (\$50 \times \text{CSUR})) \text{ or } (FC_0 \times 1.1))$

- if $(FCTT_1 - FC_0) < (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_0 \times 0.1))$

then $FC_1 = FCTT_1$

(b) 2013-14

if $FC_1 > FCTT_2$

then $FC_2 = FC_1$

FC_2 = Fixed charge in 2013-14

$FCTT_2$ = Fixed charge target tariff in 2013-14 x CSUR

If $FC_1 < FCTT_2$ and

- if $(FCTT_2 - FC_1) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_1 \times 0.1))$

then $FC_2 = (\text{greater of } (FC_1 + (\$50 \times \text{CSUR})) \text{ or } (FC_1 \times 1.1))$

- if $(FCTT_2 - FC_1) < (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_1 \times 0.1))$

then $FC_2 = FCTT_2$

(c) 2014-15

if $FC_2 > FCTT_3$ and

- if $(FC_2 - FCTT_3) \leq (FC_2 \times 0.05)$

then $FC_3 = FCTT_3$

- if $(FC_2 - FCTT_3) > (FC_2 \times 0.05)$

then $FC_3 = (FC_2 \times 0.95)$

FC_3 = Fixed charge in 2014-15

$FCTT_3$ = Fixed charge target tariff in 2014-15 x CSUR

if $FC_2 < FCTT_3$ and

- if $(FCTT_3 - FC_2) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_2 \times 0.1))$

then $FC_3 = (\text{greater of } (FC_2 + (\$50 \times \text{CSUR})) \text{ or } (FC_2 \times 1.1))$

- if $(FCTT_3 - FC_2) < (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FC_2 \times 0.1))$

then $FC_3 = FCTT_3$

Variable charges*Determining variable charges in each year of the regulatory period*

(a) 2012-13

If free water allowance is removed or converted from one to two part pricing then

$$VC_1 = VCTT_1$$

VC_1 = variable charge in 2012-13

$VCTT_1$ = variable charge target tariff in 2012-13

If two part water pricing applied in 2011-12 with no free water allowance then

if $VC_0 > VCTT_1$

$$\text{then } VC_1 = VC_0$$

VC_0 = Variable charge in 2011-12

if $VC_0 < VCTT_1$ and

- if $(VCTT_1 - VC_0) > (VC_0 \times 0.1)$

$$\text{then } VC_1 = (VC_0 \times 1.1)$$

- if $(VCTT_1 - VC_1) < (VC_0 \times 0.1)$

$$\text{then } VC_1 = VCTT_1$$

(b) 2013-14

if $VC_1 > VCTT_2$

$$\text{then } VC_2 = VC_1$$

VC_2 = variable charge in 2013-14

$VCTT_2$ = variable charge target tariff in 2013-14

If $VC_1 < VCTT_2$ and

- if $(VCTT_2 - VC_1) > (VC_1 \times 0.1)$

$$\text{then } VC_2 = (VC_1 \times 1.1)$$

- if $(VCTT_2 - VC_2) < (VC_1 \times 0.1)$

$$\text{then } VC_2 = VCTT_2$$

(c) 2014-15

if $VC_2 > VCTT_3$ and

- if $(VC_2 - VCTT_3) \leq (VC_2 \times 0.05)$

then $VC_3 = VCTT_3$

- if $(VC_2 - VCTT_3) > (VC_2 \times 0.05)$

then $VC_3 = (VC_2 \times 0.95)$

if $VC_2 < VCTT_3$ and

- if $(VCTT_3 - VC_2) > (VC_2 \times 0.1)$

then $VC_3 = (VC_2 \times 1.1)$

- if $(VCTT_3 - VC_3) < (VC_2 \times 0.1)$

then $VC_3 = VCTT_3$

Fire Service Charges

Determining fire service charges in each year of the regulatory period

(a) 2012-13

FSC_0 = Fire service charge in 2011-12

FSC_1 = Fire service charge in 2012-13

$FSCTT_1$ = Fire service target tariff for 2012-13 x CSUR

if $FSC_0 < FSCTT_1$ and

- if $(FSCTT_1 - FSC_0) > (\text{greater of } (\$50 \times \text{CSUR}) \text{ OR } (FSC_0 \times 1.1))$

then $FSC_1 = (\text{greater of } (FSC_0 + (\$50 \times \text{CSUR})) \text{ or } (FSC_0 \times 0.1))$

- if $(FSCTT_1 - FSC_0) \leq (\text{greater of } (\$50 \times \text{CSUR}) \text{ or } (FSC_0 \times 0.1))$

then $FSC_1 = FSCTT_1$

(b) 2013-14

FSC_2 = Fire service charge in 2013-14

$FSCTT_2$ = Fire service target tariff for 2013-14 x CSUR

if $FSC_1 \leq FSCTT_2$ and

- if $(FSTT_2 - FSC_1) > (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_1 \times 0.1))$
 then $FSC_2 = (\text{greater of } (FSC_1 + (\$50 \times CSUR)) \text{ or } (FSC_1 \times 1.1))$
- if $(FSCTT_2 - FSC_1) \leq (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_1 \times 0.1))$
 then $FSC_2 = FSCTT_2$

(c) 2014-15

FSC_3 = Fire service charge in 2014-15

$FSCTT_3$ = Fire service target tariff for 2014-15 x CSUR

if $FSC_2 \leq FSCTT_3$ and

- if $(FSTT_3 - FSC_2) > (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_2 \times 0.1))$
 then $FSC_3 = (\text{greater of } (FSC_2 + (\$50 \times CSUR)) \text{ or } (FSC_2 \times 1.1))$
- if $(FSCTT_3 - FSC_2) \leq (\text{greater of } (\$50 \times CSUR) \text{ or } (FSC_2 \times 0.1))$
 then $FSC_3 = FSCTT_3$

Sewerage charges

(1) Removing trade waste charges from sewerage charges

if $TWTT_1 > SC_0$

then $TWC_0 = SC_0$

$SC_{0+} = 0$

otherwise $TWC_0 = TWTT_1$

$SC_{0+} = SC_0 - TWC_0$

TWC_0 = Initial trade waste charge (basis for determining trade waste charge (TWC_1) in 2012-13)

SC_0 = 2011-12 one part sewerage and trade waste charge.

SC_{0+} = Initial sewerage fixed charge in 2012-13 prior to applying the price constraint and basis for determining sewerage charge (SC_1) in 2012-13

$TWTT_1$ = Trade waste target tariff in 2012-13 x applicable ET

(2) Determining fixed charges in each year of the regulatory period

(a) 2012-13

if $SC_0 > SCTT_1$

then $SC_1 = SC_0$

SC_0 = Sewerage charge in 2011-12

$SCTT_1$ = Sewerage charge target tariff in 2012-13 x applicable ET

SC_1 = Sewerage charge in 2012-13

ET = each equivalent tenement (ET) equals one standard sewerage connection – properties will be assessed to determine the applicable number of ETs

if $SC_0 < SCTT_1$ and

- if $(SCTT_1 - SC_0) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_0 \times 0.1))$

then $SC_1 = (\text{greater of } (SC_0 + (\$50 \times \text{applicable ET})) \text{ or } (SC_0 \times 1.1))$

- if $(SCTT_1 - SC_0) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_0 \times 0.1))$

then $SC_1 = SCTT_1$

(b) 2013-14

if $SC_1 > SCTT_2$

then $SC_2 = SC_1$

SC_2 = Sewerage water charge in 2013-14

$SCTT_2$ = Sewerage charge target tariff in 2013-14 x applicable ET

if $SC_1 < SCTT_2$ and

- if $(SCTT_2 - SC_1) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_1 \times 0.1))$

then $SC_2 = (\text{greater of } (SC_1 + (\$50 \times \text{applicable ET})) \text{ or } (SC_1 \times 1.1))$

- if $(SCTT_2 - SC_1) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_1 \times 0.1))$

then $SC_2 = SCTT_2$

(c) 2014-15

if $SC_2 > SCTT_3$ and

- if $(SC_2 - SCTT_3) \leq (SC_2 \times 0.05)$

then $SC_3 = SCTT_3$

- if $(SC_2 - SCTT_3) > (SC_2 \times 0.05)$

then $SC_3 = SC_2 \times 0.95$

SC_3 = Sewerage water charge in 2014-15

$SCTT_3$ = Sewerage charge target tariff in 2014-15 x applicable ET

if $SC_2 < SCTT_3$ and

- if $(SCTT_3 - SC_2) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_2 \times 0.1))$

then $SC_3 = (\text{greater of } (SC_2 + (\$50 \times \text{applicable ET})) \text{ or } (SC_2 \times 1.1))$

- if $(SCTT_3 - SC_2) < (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (SC_2 \times 0.1))$

then $SC_3 = SCTT_3$

Trade waste

Determining trade waste charges in each year of the regulatory period

a) 2012-13

$TWTT_1 = \text{trade waste target tariff} \times \text{applicable ET}$

if $TWC_0 < TWTT_1$ and

- if $(TWTT_1 - TWC_0) > (\text{greater of } (\$50 \times \text{ET}) \text{ or } (TWC_0 \times 1.1))$
then $TWC_1 = (\text{greater of } (TWC_0 + (\$50 \times \text{ET})) \text{ or } (TWC_0 \times 0.1))$
- if $(TWTT_1 - TWC_0) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_0 \times 0.1))$
then $TWC_1 = TWTT_1$

b) 2013-14

$TWC_2 = \text{trade waste charge in 2013-14}$

$TWTT_2 = \text{trade waste target tariff} \times \text{applicable ET}$

if $TWC_1 \leq TWTT_2$ and

- if $(TWTT_2 - TWC_1) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_1 \times 0.1))$
then $TWC_2 = (\text{greater of } (TWC_1 + (\$50 \times \text{applicable ET})) \text{ or } (TWC_1 \times 1.1))$
- if $(TWTT_2 - TWC_1) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_1 \times 0.1))$
then $TWC_2 = TWTT_2$

c) 2014-15

$TWC_3 = \text{trade waste charge in 2013-14}$

$TWTT_3 = \text{trade waste target tariff} \times \text{applicable ET}$

if $TWC_2 \leq TWTT_3$ and

- if $(TWTT_3 - TWC_2) > (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_2 \times 0.1))$
then $TWC_3 = (\text{greater of } (TWC_2 + (\$50 \times \text{applicable ET})) \text{ or } (TWC_2 \times 1.1))$
- if $(TWTT_3 - TWC_2) \leq (\text{greater of } (\$50 \times \text{applicable ET}) \text{ or } (TWC_2 \times 0.1))$
then $TWC_3 = TWTT_3$

Schedule 2 – Prices

Table 1 Target tariffs – Fixed water charges (nominal dollars)

Connection size	2012-13	2013-14	2014-15
20 mm	\$272.32	\$288.65	\$305.97

These tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 2 Target tariffs - Fire service fixed charge (nominal dollars)

Connection size	2012-13	2013-14	2014-15
20 mm	\$68.08	\$72.16	\$76.49

These tariffs apply to customers with a standard 20 mm connection. Customers with larger connections need to apply the connection size usage ratios contained in Table 3 to calculate their individual target tariffs for each year of the regulatory period.

Table 3 Connection size usage ratio

Connection size (mm)	Multiplier
20	1.00
25	1.56
30	2.25
32	2.56
40	4.00
50	6.25
65	10.56
75	14.06
80	16.00
100	25.00
150	56.25
200	100.00

Table 4 Target tariffs – Variable water charges (nominal dollars)

	2012-13	2013-14	2014-15
Potable (\$/kL)	\$0.9000	\$0.9234	\$0.9474
Non-potable water variable charge (\$/kL)	\$0.7200	\$0.7387	\$0.7379

Non-potable water represents the 'Limited Water Quality' target tariff.

Table 5 Target tariffs – Sewerage charges (nominal dollars)

	2012-13	2013-14	2014-15
Sewerage Fixed – Per Equivalent Tenement (ET)	\$488.71	\$518.03	\$549.11

Properties assessed as greater than 1ET will have their target tariff increased proportionally

Table 6 Target tariffs - Vacant land service charges (nominal dollars)

	2012-13	2013-14	2014-15
Water	\$272.32	\$288.65	\$305.97
Sewerage	\$293.22	\$310.82	\$329.47

Table 7 Target tariffs - Motor home dump points (nominal dollars)

	2012-13	2013-14	2014-15
Fixed water	\$272.32	\$288.65	\$305.97
Variable	\$0.9000	\$0.9234	\$0.9474
Fixed sewerage	\$488.71	\$518.03	\$549.11

The fixed water target tariff applies to a standard 20 mm connection. The fixed water tariff for larger connections for each year of the regulatory period is calculated by applying the connection size usage ratios contained in Table 3.

Table 8 Target tariffs – Limited water supply customers (nominal dollars)

Water connection size	2012-13	2013-14	2014-15
20 mm	\$346.05	\$366.81	\$388.82

Table 9 Private Filling Stations (nominal dollars)

	2012-13	2013-14	2014-15
Fixed charge per annum	\$272.32	\$288.65	\$305.97
Volumetric Charge (\$/kL)	\$0.9000	\$0.9234	\$0.9474

The fixed charge applies to a standard 20 mm connection. The fixed charge for larger connections for each year of the regulatory period is calculated by applying the connection size usage ratios contained in Table 3.

Table 10 Public Filling Stations – E-KEY Based (nominal dollars)

	2012-13	2013-14	2014-15
Volumetric Charge	\$0.9000	\$0.9234	\$0.9474
Fixed contribution	\$0.4400	\$0.4700	\$0.4900
Total charge (\$/kL)	\$1.3400	\$1.3900	\$1.4400

Table 11 Public Filling Stations – Token Based (each token delivers 500 litres)

	2012-13	2013-14	2014-15
Volumetric Charge (nominal dollars/kL)	\$0.9000	\$0.9234	\$0.9474
Volumetric rate per token	\$0.4500	\$0.4600	\$0.4800
Fixed contribution (nominal dollars/kL)	\$0.2200	\$0.2300	\$0.2500
Total charge per token	\$0.6700	\$0.7000	\$0.7200

Table 12 Portable Metered Standpipes (nominal dollars)

	2012-13	2013-14	2014-15
Fixed Charge	\$272.32	\$288.65	\$305.97
Volumetric Charge (\$/kL)	\$0.9000	\$0.9234	\$0.9474

The fixed charge applies to a standard 20 mm connection. The fixed charge for larger connections for each year of the regulatory period is calculated by applying the connection size usage ratios contained in Table 3.

Schedule 3 - Miscellaneous fees and charges (nominal dollars)

Type of charge	Details	2012-13	2013-14	2014-15
Connections and disconnections¹				
Standard 20 mm Water Connection	New water service connections to residential or a relocation of a water connection	\$2 258.00	\$2 316.71	\$2 376.94
Standard 100 mm Sewerage Connection	New sewerage service connections to residential or relocation of a sewerage connection	\$2 226.00	\$2 283.88	\$2 343.26
Disconnection/Capping Fee (residential water/sewerage)	Disconnecting the service to the main and capping the service connection	\$308.00	\$316.01	\$324.22
Water Metering Fees				
Special Read	The one off read of the meter outside the normal reading cycle, e.g. when there is change in property ownership	\$80.00	\$82.08	\$84.21
Meter Assessment (Testing On Site)	Undertaking an initial flow test of a water meter with a measured quantity of water	\$80.00	\$82.08	\$84.21
Meter Testing (Off Site)	Undertaking an accredited, calibrated test of a water meter, payable only if the meter is found to be working correctly	POA	POA	POA
Meter Relocation (< 3 meters)	The relocating of an existing water at the property	\$396.00	\$406.30	\$416.86
Meter Relocation (> 3 meters)	The relocation of an existing water meter at the property	POA	POA	POA
Sundry Fees				
Service Locator Fee – business hours	Fee charged for staff to locate and advise external parties (utility companies and contractors, etc) where water and sewerage infrastructure is located.	\$108.00	\$110.81	\$113.69
Right to Information Requests	This represents access to information held by State Government departments, ministers, councils or authorities within the guidelines of the <i>Right to Information Act 2009</i>	25 fee units	25 fee units	25 fee units

Type of charge	Details	2012-13	2013-14	2014-15
Inspection Costs	This fee represents where another utility or development may be working around our pipes and we need to be on site to ensure that what they're doing will not affect our services	\$/hr	\$/hr	\$/hr
Pressure and Flow Testing	This occurs where a developer may need to know the pressure/flow that could be provided to a proposed development before proceeding	POA	POA	POA
Section 56ZQ Request	This represents the cost of assessing, processing and issuing a Certificate of the Corporation Rights or Powers over Land.	25 fee units	25 fee units	25 fee units
Property Information Plan	This represents the Corporations costs of producing a Property Information Plan that details the Corporation services surrounding a property	\$35.00	\$35.91	\$36.84
Restriction Charge	The fee represents the cost in the removal of a device used to restrict the supply of water	\$108.00	\$110.81	\$113.69
Backflow Prevention Management	Administration of boundary backflow devices	POA	POA	POA
Chargeable Works	This fee represents the cost of providing any other services requested by the customer, sundry works, or testing, relating the regulated services and not covered by another charge (excluding private works)	POA	POA	POA

Notes:

- The following factors will be taken into consideration when determining whether a connection is standard or not:
 - are ease of construction;
 - length of service line;
 - ease of access; and
 - above ground/below ground services.

Non-standard water and sewerage connections will be charged on a POA (Price on Application) basis.

Schedule 4 - Trade Waste Charges

Charges by customer category and type of charge (nominal dollars)¹

Description	Fee	Category 1	Category 2
General²			
Application Fee	\$/unit	\$117	\$234
Management Fee	\$/annum	\$206	\$299
Sampling	\$/unit	At cost	At cost
Fixed Usage Charge – compliant	\$/annum	\$387	\$1 319
Fixed Usage Charge – non-compliant	\$/annum	\$3 874	\$13 193
Volumetric Charge			
Volumetric rate charge	(\$/kL)	Included in Fixed Usage Charge	
Mass Load Charge - Primary Charging Parameter Rate			
Biochemical Oxygen Demand (BOD)	\$/kg		
Total Suspended Solids (TSS)	\$/kg		
Total Kjeldahl Nitrogen (TKN)	\$/kg		
Oxidised Sulphur (OS) expressed as S	\$/kg	Included in Fixed Usage Charge	
Total Phosphorous (TP)	\$/kg		
Sodium (Na) in restricted catchments only	\$/kg		
Non-compliance			
Exceedance Charge – non-compliance with acceptance criteria or deemed status criteria	\$/kg or fixed	10 times fixed usage charge	
Non-compliance – recovery of additional costs	\$	At cost eg. sampling, analysis, investigation, damaged infrastructure reinstatement or replacement and/or biosolids disposal, reporting and legal costs	

Notes:

- 1 These charges are to apply to 2012-13. The charges are to be increased by 2.6% in each of 2013-14 and 2014-15 to account for inflation.
- 2 Other charges may be levied where Southern Water has incurred a cost in relation to the provision of the trade waste services for the benefit of the customer, or the premises.

APPENDIX 2 POLICIES

SERVICE CHARGE POLICY	A-70
DEVELOPER CHARGES PRICING POLICY.....	A-72
CUSTOMER CONNECTION POLICY.....	A-76
SERVICE EXTENSION, EXPANSION AND INTRODUCTION POLICY	A-81
WATER SUB-METERING POLICY.....	A-85

Service Charge Policy

Aim

This policy provides an outline of the circumstances in which a service charge may be levied by [ENTITY NAME] and the amount of, or the method [ENTITY NAME] will use in determining the amount of, that service charge.

Background and definitions

The *Water and Sewerage Industry Act 2008* provides the power for [ENTITY NAME] to charge a “service charge”:

- (a) on land that was the subject of a service rate or service charge under the now repealed section 95 of the *Local Government Act 1993* (i.e. land that was within 30 metres of connection to a council’s water infrastructure or sewerage infrastructure) immediately prior to the commencement of [ENTITY NAME]; or
- (b) consistent with this service charge policy developed under section 68A of the *Water and Sewerage Industry Act* and approved under a Price and Service Plan.

In this policy:

Service charge means a charge levied under section 68A of the *Water and Sewerage Industry Act*.

Serviced land means a description of the land, whether identified by individual title or locality, which [ENTITY NAME] will permit to be connected to its water infrastructure or sewerage infrastructure.

Information concerning the currently established serviced land boundaries for [ENTITY NAME], including maps, is available on the [ENTITY NAME] website [ENTITY WEB ADDRESS] and for inspection by customers at [ENTITY NAME]’s [ENTITY’S OFFICE LOCATION e.g. Devonport] office. Customers may also contact [ENTITY NAME] during business hours on 13MYWATER (13 6992) should they require further information regarding [ENTITY NAME]’s serviced land boundaries.

Serviced land boundaries will change over time as the capacity of the system changes.

Policy

[ENTITY NAME] will continue to levy service charges on land that was the subject of a service rate or service charge under the now repealed section 95 of the *Local Government Act 1993* immediately prior to the commencement of [ENTITY NAME].

[ENTITY NAME] will levy a service charge where a property is located within [ENTITY NAME]’s serviced land and where there is a water service or sewerage service available through a water main or sewerage main passing the property, but the property is not connected.

[ENTITY NAME] will levy a service charge where a water service or sewerage service is provided to serviced land other than through a connection point.

[ENTITY NAME] will levy a service charge on new allotments located within [ENTITY NAME]'s serviced land boundaries whether those allotments are developed or not.

The cost of the service charge will be in accordance with a price determination released by the Tasmanian Economic Regulator and will be in [ENTITY NAME]'s approved schedule of tariffs available on the [ENTITY NAME]'s website [ENTITY WEB ADDRESS].

[ENTITY NAME] will not charge a service charge unless it serves notice on the owner of the land and publishing a notice in a newspaper circulating generally in the area in which the land is situated. [ENTITY NAME] will ensure that a copy of the notice is available for inspection at its offices and on its website [ENTITY WEB ADDRESS]. The notice will:

- define the locality to which it applies;
- specify the services available;
- generally identify the land to which the services are available; and
- fix a date on and from which the service charge will be payable, being a date not less than three months from the date of the notice.

[ENTITY NAME] is not required to serve notice when levying a service charge in respect of land that was the subject of a service rate or service charge under the now repealed section 95 of the Local Government Act immediately prior to the commencement of [ENTITY NAME].

Responsibilities

The Chief Executive Officer of [ENTITY NAME] is responsible for implementing this policy.

References

- [ENTITY NAME]'s *Customer Connection Policy*
- Tasmanian Economic Regulator – 2012 Water and Sewerage Price Determination
- *Water and Sewerage Industry Act 2008*
- Any other manuals and documents specific to [ENTITY NAME] and this policy

Approved by the CEO on [DATE]

Signed by [CEO NAME], CEO, [ENTITY NAME]

Developer Charges Pricing Policy

Aim

The aim of this policy is to outline the charges that apply to developments that increase the potential demand on water [ENTITY NAME]'s infrastructure and/or sewerage infrastructure in the [ENTITY NAME] region.

Background and definitions

Section 8 of the *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011* (the Regulations) requires [ENTITY NAME]'s Price and Service Plan to include a developer charges policy which complies with the Regulations.

Developer charges are the charges that [ENTITY NAME] imposes in respect of a property on which a new development is proposed. Developer charges relate to [ENTITY NAME] installing, altering or utilising assets to provide water services and/or sewerage services for the purposes of the new development.

Developer charges include headworks charges, assets gifted by developers and cash payments made by developers to [ENTITY NAME] for the construction of the new reticulation works.

[ENTITY NAME] has adopted a net present value methodology for determining headworks charges.

The key principle of this methodology is that the cost of providing water services and/or sewerage services for a specific development area is fully recovered from the development through a combination of upfront charges and periodic charges, without placing an additional burden on existing customers.

This includes full cost recovery from new customers of [ENTITY NAME] regardless of whether they are located in new development areas or in redeveloped existing areas.

The net present value methodology requires [ENTITY NAME] to identify geographical areas, called headworks zones. The cost of the assets required to service each headworks zone is identified. In addition, the amount [ENTITY NAME] will receive in periodic charges in excess of operating requirements is determined. Using the net present value methodology, the costs and revenues are reconciled to a single value by discounting them to today's dollars. The headworks charge is calculated as the difference between the cost of the assets required to service the headworks zone and the amount to be funded by periodic charges over a specified time period (as calculated by the present value of the periodic charges).

This calculation can be written as an equation as follows:

$$\text{Cost of providing assets} = \text{Upfront charge (Developer charge)} + \text{Present Value of amount recovered through periodic bills}$$

and can be rearranged in terms of developer charges:

$$\text{Upfront charge (Developer charge)} = \text{Cost of providing assets} - \text{Present Value of amount recovered through periodic bills}$$

A headworks charge is calculated on an equivalent tenement basis for each headworks zone. Headwork charges provide price signals for development in each headworks zone and are set to recover from the developer proportional costs of the capacity consumed, or required to be constructed, to provide water and wastewater headworks infrastructure to a new development.

The headworks charge per equivalent tenement will vary between headworks zones depending on the cost of the assets required to service each zone.

Prior to the formation of [ENTITY NAME], owner Councils had differing approaches to the levying of developer charges. This policy allows for the consistent application of developer charges across the [ENTITY NAME] region.

For the purposes of this policy:

Equivalent tenement means a measure of the demand that a development will place on [ENTITY NAME]'s water infrastructure and/or sewerage infrastructure in terms of water consumption and sewage discharge, compared to a standard residential allotment.

Headworks refers to major works like dams, reservoirs, treatment plants, main sewers and distribution assets like supply mains, distribution mains and associated pump systems. Headworks exclude reticulation pipe work that connects properties to the headworks.

Developer charges include:

- (a) Headworks charges – the payment of cash by developers to [ENTITY NAME] for the proportional costs of the capacity consumed of existing headworks infrastructure and or expansion of capacity required as a result of a property development (for further information see [ENTITY NAME]'s *Service Extension, Expansion, and Introduction Policy*); and
- (b) the gifting of water or sewerage reticulation infrastructure to [ENTITY NAME] where the infrastructure was required as the result of a property development and was paid for by the developer, or the developer paid cash to [ENTITY NAME] for the construction of water or sewerage reticulation infrastructure to service a property development,

but do not include the costs directly associated with the connection of a property to a water main or sewerage main or local reticulation main, which [ENTITY NAME] will

recover separately from the customer. (For further information see [ENTITY NAME]'s *Customer Connection Policy*).

Policy

(1) Calculating and applying developer charges

[ENTITY NAME] will honour any permits issued, or agreements made, in respect of developer charges prior to 1 July 2009.

Developer charges under this policy apply from 1 July 2012 and are as follows:

- All internal or subdivision water infrastructure and/or sewerage infrastructure is to be provided by the developer at the developer's cost and transferred to [ENTITY NAME]. In lieu of providing the internal or subdividing infrastructure, a developer may make a cash payment to [ENTITY NAME].
- All water infrastructure and/or sewerage infrastructure that is external to the development and is required solely to service the development is to be provided at the developer's cost.
- [ENTITY NAME] will determine headworks charges for each headworks zone using the net present value methodology consistent with this policy.
- A developer must pay the applicable headworks charge prior to [ENTITY NAME] issuing a:
 - Subdivision – A Certificate of Approval for the Plan of Survey; or
 - Development – A Certificate for Certifiable Work (Building and Plumbing).

[ENTITY NAME] can be contacted during business hours on 13MYWATER (13 6992) for further information regarding the calculation of developer charges.

(2) Providing a developer charge estimate

Upon request, [ENTITY NAME] will provide an estimate of the amount of the developer charge that is to apply in respect of the property to a person who:

- proposes a new development in respect of a property; and
- who provides [ENTITY NAME] with sufficient information about the proposals for the new development to enable an estimate to be determined.

Customers seeking a developer charge estimate may contact [ENTITY NAME] during business hours on 13MYWATER (13 6992).

On or before 1 July 2015, [ENTITY NAME] will develop an online calculator so developers can, without additional assistance from [ENTITY NAME]:

- estimate the number of equivalent tenements that relate to their potential development; and
- ascertain the headworks charge per equivalent tenement for each headworks zone.

(3) Providing information on how developer charge has been determined

Upon request, [ENTITY NAME] will provide information as to how [ENTITY NAME] has determined the amount of the developer charge to a person on whom a developer charge is imposed.

Customers seeking such information may contact [ENTITY NAME] during business hours on 13MYWATER (13 6992).

(4) As the value of reticulated assets to be gifted or paid for by a developer is determined on a case-by-case basis following detailed discussions between the regulated entity and the developer and following detailed design by the developer's engineers at a later stage in the process, it is not possible for the on-line calculator to provide this information.

Developers should therefore be aware that they may be liable for additional costs in relation to reticulated assets associated with their proposed development.

Responsibilities

The Chief Executive Officer of [ENTITY NAME] is responsible for implementing this policy.

References

- [ENTITY NAME]'s *Customer Connection Policy*
- [ENTITY NAME]'s *Service Extension, Expansion, and Introduction Policy*
- Tasmanian Economic Regulator – 2012 Water and Sewerage Price Determination
- *Water and Sewerage Industry Act 2008*
- *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*
- Any other manuals and documents specific to [ENTITY NAME] and this policy

Approved by the CEO on [DATE]

Signed by [CEO NAME], CEO, [ENTITY NAME]

Customer Connection Policy

Aim

The aim of this policy is to:

- outline the circumstances in which [ENTITY NAME] will permit an owner of land to connect, relocate or adjust a connection to [ENTITY NAME]'s water or sewerage infrastructure; and
- describe the land (serviced land), whether by individual title or locality, [ENTITY NAME] will permit to be connected to its water and sewerage infrastructure.

This policy does not cover:

- where a property is outside [ENTITY NAME]'s serviced land and expansion is required to connect the property to [ENTITY NAME]'s water and sewerage infrastructure; or
- where a property within [ENTITY NAME]'s serviced land is being subdivided; or
- where there is a change in land use within [ENTITY NAME]'s serviced land.

The above situations have the potential to increase demand on the capacity of [ENTITY NAME]'s water and sewerage infrastructure and will be addressed under [ENTITY NAME]'s *Service Extension, Expansion, and Introduction Policy*, or by a contract entered into in accordance with section 61 of the *Water and Sewerage Industry Act 2008*.

Background and definitions

[ENTITY NAME]'s water and infrastructure is designed to achieve the standards and conditions of service and supply (as specified in [ENTITY NAME]'s Customer Charter) at the boundary of a property, provided the property is located within [ENTITY NAME]'s serviced land.

[ENTITY NAME] has identified serviced land boundaries to enable customers, and potential customers to determine if a standard connection can be provided to their property under this policy.

There are limitations to where a standard connection can be provided under this policy, for example, the serviced land boundary may pass through a property and applicants for a connection, relocation or adjustment of a connection, should be aware that reduced supply characteristics may apply to land outside the serviced land boundary (e.g. water pressure may be reduced).

Information about [ENTITY NAME]'s serviced land boundaries, including maps, is available on [ENTITY NAME]'s website [ENTITY WEB ADDRESS] and at [ENTITY NAME]'s [ENTITY'S OFFICE LOCATION e.g. Devonport] office. [ENTITY NAME]

can be contacted during business hours on 13MYWATER (13 6992) for further information regarding [ENTITY NAME]'s serviced land boundaries.

Serviced land boundaries will change over time in response to changes in system capacity.

In this policy:

Connection charge means a charge calculated by reference to the costs that are associated with installing assets that are dedicated to the provision of water services and/or sewerage services to a particular customer. For the purposes of this policy, this applies to connection relocation or adjustment.

Connection point means:

- (i) the point at which the customer's pipes connect with [ENTITY NAME]'s water and/or sewerage infrastructure; or
- (ii) such other point as may be prescribed in regulations made and in force under the Water and Sewerage Industry Act.

Customer contract means a contract between [ENTITY NAME] and a customer for the provision of water services and/or sewerage services to the customer, which includes standard terms and conditions of service.

Expansion means augmentation of water and/or sewerage infrastructure to accommodate development of a property which cannot be catered for by the current system's capacity. For example, subdividing a property or a significant change of use may require infrastructure expansion.

Service charge means a charge levied under section 68A of the Water and Sewerage Industry Act.

Serviced land means a description of land, whether identified by individual title or by locality, which [ENTITY NAME] will permit to be connected to its water infrastructure or sewerage infrastructure.

Standard connection means a 20mm water connection or a 100mm sewerage connection.

Policy

- (1) Property connection and connection, and connection relocation or adjustment

Unless varied by agreement as part of a contract entered into in accordance with section 61 of the Water and Sewerage Industry Act, [ENTITY NAME] will provide water and/or sewerage services to former customers of a council or bulk water authority that, immediately prior to 1 July 2009, were connected to water or sewerage infrastructure transferred from 1 July 2009 to [ENTITY NAME].

[ENTITY NAME] will connect a property to its water and/or sewerage infrastructure if it meets the connection requirements in the Tasmanian Water and Sewerage Industry Customer Service Code and complies with the following criteria:

- the property is within [ENTITY NAME]'s serviced land;
- a title must be issued for that property or consent received from the landowner;
- if necessary, a certificate for Certifiable Work has been obtained;
- an application for Water and Sewerage Connection (WS 01A) has been completed; and
- an applicant has paid the appropriate fees relating to connection as listed in the [ENTITY NAME]'s approved schedule of tariffs available on [ENTITY NAME]'s website [ENTITY WEB ADDRESS].

Properties outside [ENTITY NAME]'s serviced land may not be able to be serviced by [ENTITY NAME]'s water and/or sewerage infrastructure, or may not be able to be serviced to minimum standards and conditions of service and supply.

Should the owner of a property outside [ENTITY NAME]'s serviced land, or whose property is partly outside the serviced land boundary, request connection to [ENTITY NAME]'s water and/or sewerage infrastructure, a case by case assessment will be made in terms of the ability to connect, and any costs associated with the connection. Proposed developments outside of the serviced land boundary will be dealt with under [ENTITY NAME]'s *Service Extension, Expansion, and Introduction Policy*.

(2) Costs associated with connection, and connection relocation and adjustment

Where an application is made for a connection of a property to [ENTITY NAME]'s water and/or sewerage infrastructure and the property:

- meets the criteria listed in section (1) of this policy; and
- has the applicable water and/or sewerage infrastructure passing the property;
or
- is being charged a service charge –

[ENTITY NAME] will install reticulated water and/or sewerage pipe work up to a standard connection point at the property boundary. (Figure 1 attached to this policy provides a diagrammatic representation of a typical water connection to a property).

The connection charges are in addition to the recurrent fixed charges and volumetric consumption charges in respect of the provision of water services and/or sewerage services to the property.

To determine if additional charges apply for connection of water services and/or sewerage services to property outside of the serviced land area, refer to [ENTITY NAME]'s *Service Extension, Expansion, and Introduction Policy*.

The connection charges, and any other applicable charges that may be incurred as a result of the connection, connection relocation or adjustment, are available on [ENTITY NAME]'s website [ENTITY WEB ADDRESS] or by calling 13MYWATER (13 6992).

Responsibilities

The Chief Executive Officer of [ENTITY NAME] is responsible for implementing this policy.

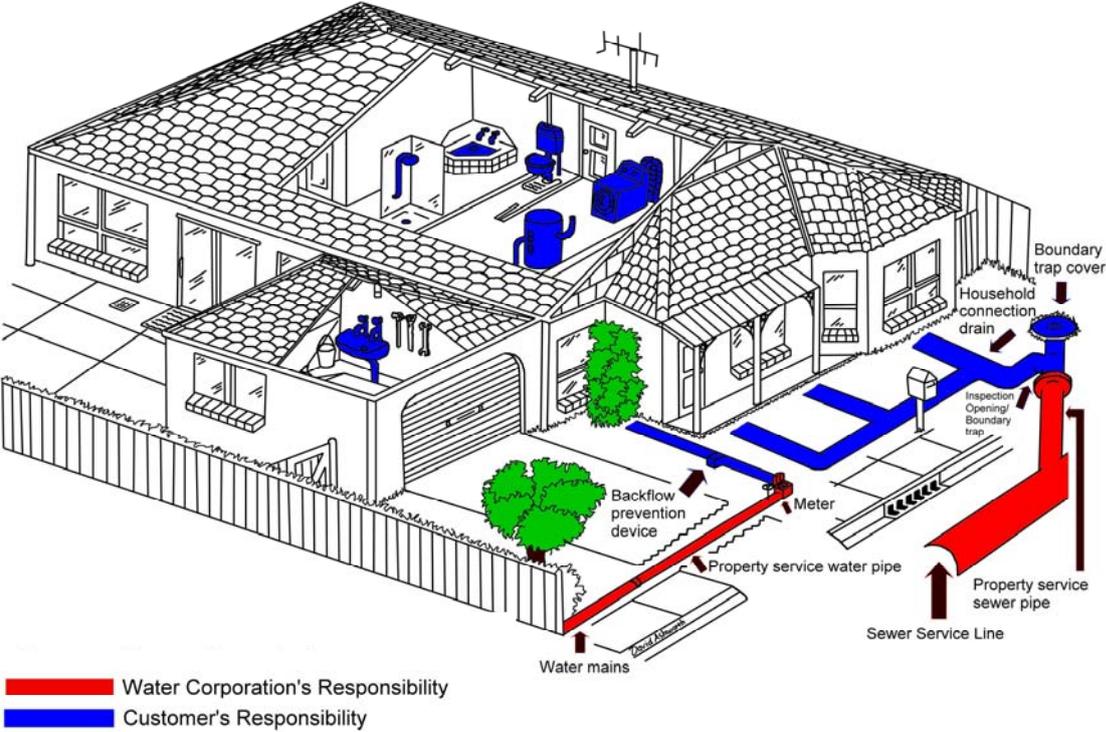
References

- [ENTITY NAME]'s *Customer Charter*
- [ENTITY NAME]'s *Service Extension, Expansion, and Introduction Policy*
- Tasmanian Economic Regulator – 2012 Water and Sewerage Price Determination
- Tasmanian Water and Sewerage Industry Customer Service Code
- *Water and Sewerage Industry Act 2008*
- *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*
- Any other manuals and documents specific to [ENTITY NAME] and this policy

Approved by the CEO on [DATE]

Signed by [CEO NAME], CEO, [ENTITY NAME]

Figure 1 Diagram of a typical water connection to a property



Service extension, expansion and introduction policy

Aim

The aim of this policy is to outline the circumstances in which, and the terms and conditions under which (including the levying of service introduction charges where appropriate), [ENTITY NAME] will extend, expand or introduce its water and/or sewerage infrastructure.

Background and definitions

The *Water and Sewerage Industry Act 2008* requires [ENTITY NAME] to include in its Price and Service Plan a policy that sets out the circumstances in which [ENTITY NAME] will extend and expand its water and/or sewerage infrastructure, including the circumstances in which it will extend or expand its water and/or sewerage infrastructure at the request of a person. The policy must also include the terms and conditions that will apply to such an extension or expansion.

In accordance with the *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*, a Price and Service Plan may be required to include a service introduction charges policy which specifies how [ENTITY NAME] determines service introduction charges and the terms and conditions that will apply to service introduction charges.

In this policy:

Connection charge means a charge calculated by reference to the costs that are associated with installing assets that are dedicated to the provision of water services and/or sewerage services to a particular customer. For the purposes of this policy, this applies to connection relocation or adjustment.

Connection point means:

- (i) the point at which the customer's pipes connect with [ENTITY NAME]'s water and/or sewerage infrastructure; or
- (ii) such other point as may be prescribed in regulations made and in force under the Water and Sewerage Industry Act.

Expansion means augmentation of water and/or sewerage infrastructure to accommodate development of a property which cannot be catered for by the current system's capacity. For example, subdividing a property or a significant change of use may require infrastructure expansion.

Extension means the lengthening of water and/or sewerage infrastructure to enable connection; with the connection able to be catered for by current system capacity (i.e. extension can only occur within serviced land).

Service charge means a charge levied under section 68A of the Water and Sewerage Industry Act.

Service introduction means the construction of water infrastructure and/or sewerage infrastructure to service areas not previously receiving reticulated water services and/or sewerage services.

Serviced land means a description of the land, whether identified by individual title or locality, which [ENTITY NAME] will permit to be connected to its water infrastructure or sewerage infrastructure.

Information about [ENTITY NAME]'s serviced land boundaries, including maps, is available on [ENTITY NAME]'s website [ENTITY WEB ADDRESS] and at [ENTITY NAME]'s [ENTITY'S OFFICE LOCATION e.g. Devonport] office. [ENTITY NAME] can be contacted during business hours on 13MYWATER (13 6992) for further information regarding [ENTITY NAME]'s serviced land boundaries.

Policy

(1) Extension – within serviced land

Where a customer is located within serviced land, but does not have water and/or sewerage infrastructure passing their property, and requests connection to [ENTITY NAME]'s water and/or sewerage infrastructure, the following conditions apply:

- If a customer is currently paying a service charge then [ENTITY NAME] will bear the cost of the extension, but the customer is liable for the applicable connection charges (as per [ENTITY NAME]'s *Customer Connection Policy*).
- If a customer is currently not paying a service charge, then the customer is liable to pay an extension charge in addition to the applicable connection charge.
- Where [ENTITY NAME] determines a property will be unable to be serviced to minimum standards and conditions of service and supply (as specified in [ENTITY NAME]'s Customer Charter), [ENTITY NAME] reserves the right to not connect the property, or alternatively, offer supply of services under an agreed contract made in accordance with section 61 of the Water and Sewerage Industry Act. Where [ENTITY NAME] agrees to connect the property the above conditions apply.

Extension charges may vary depending on the associated costs. Extension charges will be calculated on a cost recovery basis.

For additional information regarding connections refer to [ENTITY NAME]'s *Customer Connection Policy*.

(2) Expansion

If expansion is required to service a proposed development (e.g. subdivision or change of use), then the charges will be calculated in accordance with [ENTITY NAME]'s *Developer Charges Pricing Policy*.

- (3) Introduction of new services and/or sewerage services to areas with only onsite services, e.g. septic tanks, rain tanks (service introduction)

[ENTITY NAME] will determine the service introduction charges using the same methodology as it applies to calculate developer charges (refer to [ENTITY NAME]'s *Developer Charges Pricing Policy*).

The introduction of water and/or sewerage services must satisfy the following conditions:

- The introduction of water and/or sewerage services is to be commercially viable for [ENTITY NAME] (which may include external funding – e.g. a contribution from owner Councils, government grant(s), customer contributions, or a combination of any of these); or
- The absence of water and/or sewerage services is causing significant and/or wide scale environmental harm and/or public health issues, as identified by the local Environmental Health Officer, the Environment Protection Authority or the Department of Health and Human Services; and
- [ENTITY NAME] will consult with the community on any service introduction proposal; and
- [ENTITY NAME] will provide to a person, before a service introduction charge is imposed on that person, an estimate of the amount of the service introduction charge; and
- [ENTITY NAME] will provide to a person, on whom a service introduction charge is imposed, information as to how the amount of the service introduction charge has been determined; and
- [ENTITY NAME] must be satisfied that there is broad community support before proceeding with a proposed service introduction, unless a compelling public interest reason can be demonstrated.

Once a decision is made to proceed with the introduction of water and/or sewerage services, the services will be paid for by a service introduction charge which will be applied as follows:

- A service introduction charge is a charge to be paid by the owner of the property to which the service is introduced. The service introduction charge will reflect the cost of providing water and/or sewerage services less any funding provided by third party contributions and less the net present value of the revenue for the provision of the services. Service introduction charges are levied from the date on which the water and/or sewerage service becomes available.
- The owner of a property subject to a service introduction charge may pay the charge:
 - over a period of 12 months; or

- at the owner’s request, over a period of less than 12 months; or
 - at the owner’s request, in accordance with an extended payment arrangement. That is, over a period of greater than 12 months but not more than 10 years.
- Where a payment arrangement is requested by the owner and agreed to by [ENTITY NAME], a payment schedule will be determined and provided to the customer. In determining the payment schedule, [ENTITY NAME] will undertake an annuity calculation to ensure full cost recovery is achieved over the agreed period.
 - Where a payment arrangement is requested by the owner, a consumer credit contract must be entered into. The credit contract will outline the terms and conditions of the arrangement and a requirement for the owner to fully settle the balance with [ENTITY NAME] should the owner sell the property.
 - A connection fee for water and/or sewerage services will be payable when the property is connected to [ENTITY NAME]’s water and/or sewerage infrastructure. In addition, recurrent fixed and variable charges will apply once the property is connected.

Responsibilities

The Chief Executive Officer of [ENTITY NAME] is responsible for implementing this policy.

References

- [ENTITY NAME]’s Customer Charter
- [ENTITY NAME]’s *Customer Connection Policy*
- [ENTITY NAME]’s *Developer Charges Pricing Policy*
- *Land Use Planning and Approvals Act 1993*
- Tasmanian Economic Regulator – 2012 Water and Sewerage Price Determination
- *Water and Sewerage Industry Act 2008*
- *Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011*
- *Water Works Clauses Act 1952*
- Any other manuals and documents specific to [ENTITY NAME] and this policy

Approved by the CEO on [DATE]

Signed by [CEO NAME], CEO, [ENTITY NAME]

Water sub-metering policy

Aim

The aim of this policy is to outline [ENTITY NAME]'s approach to sub-metering of existing and new strata schemes and multi-unit properties.

This policy applies to all residential and non-residential strata schemes and multi-unit properties.

Policy

New strata schemes

Strata schemes will be metered using a manifold assembly, or a master meter with sub-meters. Where there is no common property, no shared connecting pipe work and no requirement for a master meter, [ENTITY NAME] may, at its discretion, approve each lot being individually connected to [ENTITY NAME]'s water main.

A manifold assembly will comprise individual meters which measure the volume of water supplied to each lot and common property(s) (if applicable). Refer to Figure 1 for an example of a strata scheme with individual meters and no common property. Each lot owner will be billed a fixed charge (based on the size of their individual meter) and a volumetric charge based on the volume of water supplied to the lot as measured by the individual meter. In addition, the bill will include a proportion, determined by the unit entitlement, of both the fixed charge and the volumetric charge for the common property(s) (if applicable).

For strata schemes where it is impracticable to use a manifold assembly, a master meter will be installed at the connection point and a sub-meter will be installed for each lot and common property(s) (if applicable). Refer to Figure 2 for an example of a strata scheme with sub-meters and a master meter. Each lot will be billed a fixed charge (based on the size of the sub-meter) and a volumetric charge based on the volume of water supplied to the lot as measured by the sub-meter. In addition, the bill will include a proportion, determined by the unit entitlement, of:

- the fixed and volumetric charges for the common property(s) sub-meter(s) (if applicable); and
- the excess water supplied to the master meter, where the master meter reading is greater than the sum of the individual sub-meter readings.

Due to smaller size of the sub-meters the level of accuracy in the sub-meters is deemed to be greater than that of the master meter. Therefore, where the master meter reading is less than the sum of the individual sub-meter readings, each lot will be billed on the volume of water supplied to the lot as measured by the sub-meter.

Where each lot is individually connected to [ENTITY NAME]'s water main, each lot will be billed a fixed charge (based on the size of the lot's individual meter) and a

volumetric charge based on the volume of water supplied to the lot as measured the lot's individual meter.

Existing strata schemes

Existing strata schemes will be metered in one of the following ways:

1. Master meter and sub-meters, with or without common property;
2. Master meter and no sub-meters, with or without common property;
3. No master meter and individual lot meters, with or without common property;
or
4. Lots are connected individually to [ENTITY NAME]'s water main.

1. Master meter and sub-meters

In existing sub-metered schemes, each lot will be billed a fixed charge (based on the size of their sub-meter) and a volumetric charge based on the volume of water supplied to each lot as measured by the sub-meter. In addition, the bill will include a proportion, determined by the unit entitlement, of:

- the fixed and volumetric charge for the common property(s) (if applicable); and
- the excess water supplied to the master meter, where the master meter reading is greater than the sum of the individual sub-meter readings.

Due to the smaller size of the sub-meters the level of accuracy in the sub-meters is deemed to be greater than that of the master meter. Therefore, where the master meter reading is less than the sum of the individual sub-meter readings, each lot will be billed on the volume of water supplied to the lot as measured by the sub-meter.

2. Master meter and no sub-meters

If the body corporate is silent, or decides not to install sub-meters, then each lot will be billed for a portion, determined by the unit entitlement, of the fixed and volumetric charge for the master meter and the common property(s) (if applicable).

If the body corporate provides a copy of a unanimous resolution authorising the installation of sub-meters, then [ENTITY NAME] will supply sub-meters at no cost to the owners to install at the owners' cost. Sub-meters must be installed to [ENTITY NAME]'s approved installation standards and remain the property of [ENTITY NAME].

Once the sub-meters are installed, each lot will be billed a fixed charge (based on the size of their sub-meter) and a volumetric charge based on the volume of water supplied to each lot as measured by the sub-meter. In addition, the bill will include a proportion, determined by the unit entitlement, of:

- the fixed and volumetric charge for the common property(s) (if applicable); and
- the excess water supplied to the master meter, where the master meter reading is greater than the sum of the individual sub-meter readings.

3. No master meter and individual lot meters

Where there are individual lot meters with no master meter, each lot will be billed a fixed charge (based on the size of the lot’s individual meter) and a volumetric charge based on the volume of water supplied to the lot as measured by the lot’s individual meter. In addition, the bill will include a proportion, determined by the unit entitlement, of the fixed and volumetric charge for the common property(s) (if applicable).

The installation of a master meter will be at the discretion of [ENTITY NAME]. Once installed, the individual lot meters and common property(s) meter (if applicable) will be deemed to be sub-meters.

4. Individual connection to [ENTITY NAME]’s water main

Where there is no common property, no shared connecting pipe work and no requirement for a master meter, [ENTITY NAME] may, at its discretion, approve each lot being individually connected to [ENTITY NAME]’s water main. Where each lot is individually connected to [ENTITY NAME]’s water main, each lot will be billed a fixed charge (based on the size of the lot’s individual meter) and a volumetric charge based on the volume of water supplied to the lot as measured the lot’s individual meter

Figure 1 Strata scheme with individual meters and no common property

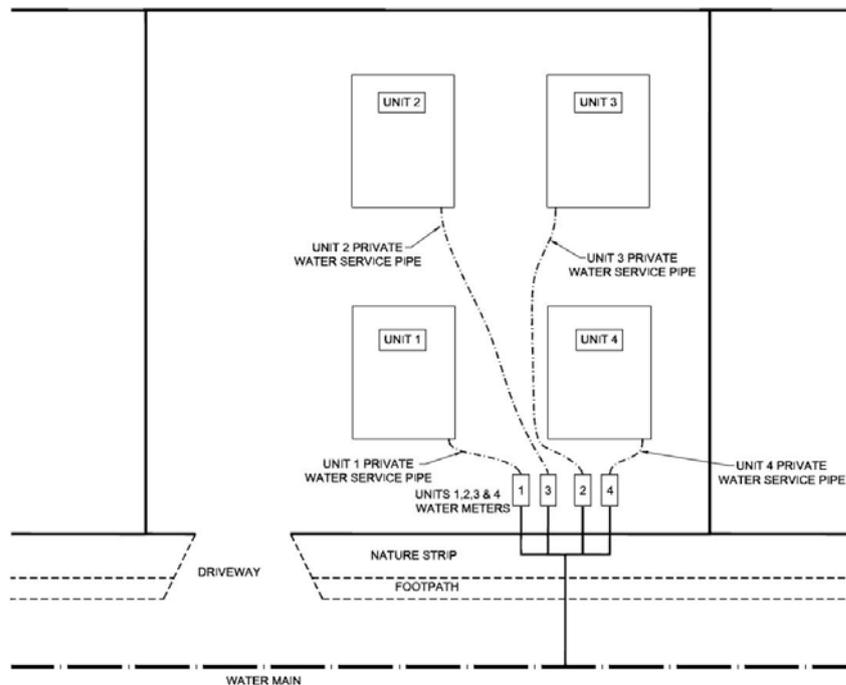
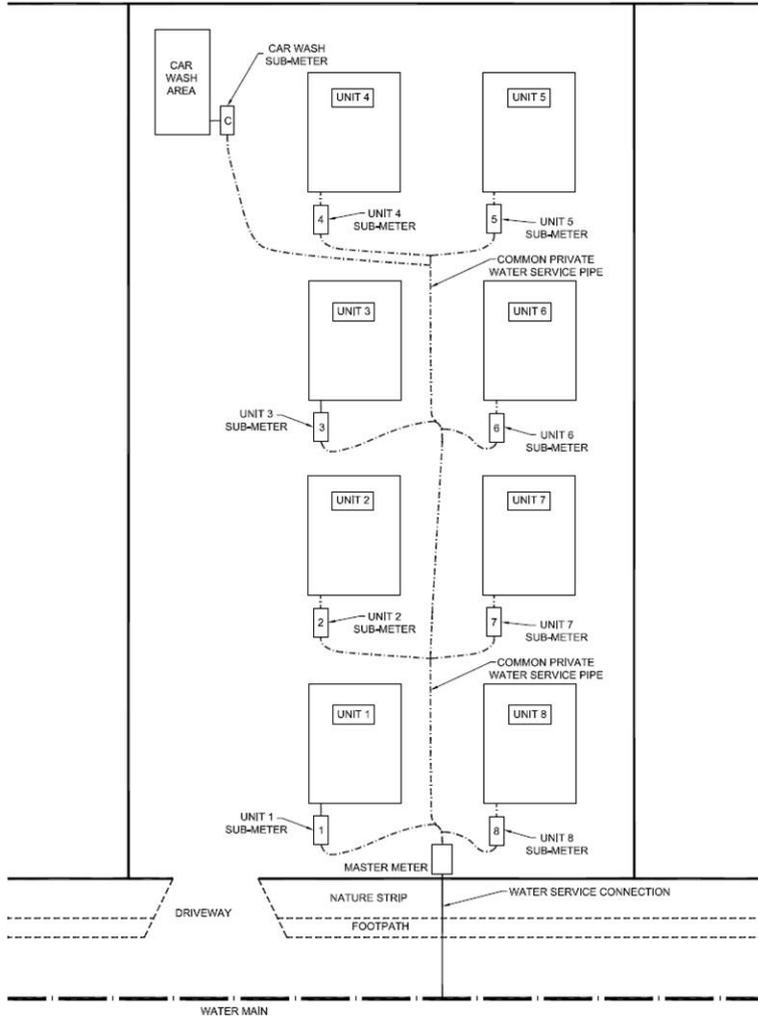


Figure 2 Strata scheme with sub-meters and a master meter



Multi-unit properties – existing and new

All multi-unit properties will have a master meter at the connection point and the option to install sub-meters (subject to plumbing being suitable for sub-metering).

No sub-meters

Multi-unit properties will have a master meter installed at the connection point.

The freehold title owner will be billed for the fixed and volumetric charge for the master meter.

Sub-meters - existing and new

Where sub-meters already exist, [ENTITY NAME] will provide the freehold title owner a bill which includes volumetric and fixed charge for the master meter only unless an alternative private arrangement has been entered into by the freehold tile owner and the [ENTITY NAME].

If the freehold title owner requests in writing for the installation of sub-meters, [ENTITY NAME] may at its discretion agree to sub-metering. This will be private arrangement between [ENTITY NAME] and the freehold title owner. Sub-meters must be installed to [ENTITY NAME]'s approved installation standards and remain the property of [ENTITY NAME].

Sub-metering connecting pipe work

The property owner is responsible for providing and maintaining the interposing pipe work (i.e. between the master meter and the sub-meter, and between the sub-meter and the strata lot/unit), valves, fittings, and protective boxes.

Responsibilities

The Chief Executive Officer of [ENTITY NAME] is responsible for implementing this policy.

References

- Tasmanian Economic Regulator – 2012 Water and Sewerage Price Determination
- *Strata Titles Act 1998*
- Any other manuals and documents specific to [ENTITY NAME] and this policy

Definitions

Body corporate	The body corporate is the controlling body of a strata scheme. The owners of the lots in the scheme form the body corporate which comes into existence automatically on registration of the strata plan by the Recorder of Titles.
Common property	Common property comprises all the areas of the land and buildings in a strata scheme not included in any lot. It is owned and maintained by the body corporate on behalf of the individual lot owners in the strata scheme. Service infrastructure serving more than one lot, such as cables, pipes, or equipment, is also common property. The strata plan sets out the lots and common property in the strata scheme.
Excess Water	The difference in volume supplied where the master meter reading is greater than the sum of volume supplied through the individual sub-meters.
General unit entitlement	As defined in Section 16 of the Strata Titles Act 1998 - all strata schemes have a general unit entitlement which is set out in a schedule on the last page of the strata plan.

Manifold assembly	A chamber having multiple openings for making connections.
Master meter	A meter installed at the connection point that measures the total volume of water supplied to a strata scheme or a multi-unit property. A master meter may or may not be connected to sub-meters
Multi-unit property	Multi-unit properties have more than one sole occupancy unit on one freehold title (i.e. not established as a strata scheme). A sole occupancy unit means a building or other part of a building for occupation by one lessee, tenant or other occupier to the exclusion of any other lessee, tenant, or other occupier. A sole occupancy unit also includes any part of the building that is a common property or common property.
Sub-meter	A water meter that measures individual usage of water downstream of a master meter.
Sub-metering	The installation of individual water meters to measure the volume of water supplied downstream of a master meter.
Special unit entitlement	As defined in Section 16 of the Strata Titles Act 1998 - Some strata schemes may have lots with special unit entitlements. Where these exist they are set out in a schedule on the last page of the strata plan.
Strata scheme	As defined under the Strata Titles Act 1998 – generally a strata scheme is a particular type of development which divides a parcel of land into “lots” and “common property” and which specifies a system of management.
Unit entitlement	Where the strata general or special unit entitlements are available from the Land Titles Office Cadastral Spatial Layer the apportionment will be based on those entitlements; or Where this information is not available, the charges will be shared equally across all of the lots; or The body corporate advises [ENTITY NAME] of an alternative apportionment in writing in the form of a copy of a unanimous resolution.
Water meter	A device, including equipment related to the device, for measuring the volume of water supplied to a property.

Approved by the CEO on [DATE]

Signed by [CEO NAME], CEO, [ENTITY NAME]

APPENDIX 3 REVENUE LIMITS DATA

Table 1 Existing assets (\$'000s)

		2012-13	2013-14	2014-15
Ben Lomond Water				
Water	Opening Asset Base	336,312.86	326,102.93	315,900.12
	- Disposal	-121.36	-117.82	-114.39
	- Depreciation	-10,088.57	-10,084.99	-10,081.50
	Closing Asset Base	326,102.93	315,900.12	305,704.22
Waste Water	Opening Asset Base	347,629.99	337,080.51	326,538.15
	- Disposal	-121.36	-117.82	-114.39
	- Depreciation	-10,428.12	-10,424.53	-10,421.05
	Closing Asset Base	337,080.51	326,538.15	316,002.71
	Total Opening	683,942.85	663,183.44	642,438.27
	Total Closing	663,183.44	642,438.27	621,706.93
Total Average		673,563.15	652,810.85	632,072.60
Cradle Mountain Water				
Water	Opening Asset Base	342,010.94	332,467.25	322,968.17
	- Disposal	-44.00	0.00	0.00
	- Depreciation	-9,499.69	-9,499.08	-9,499.08
	Closing Asset Base	332,467.25	322,968.17	313,469.09
Waste Water	Opening Asset Base	335,787.62	326,404.96	317,079.08
	- Disposal	-56.00	0.00	0.00
	- Depreciation	-9,326.66	-9,325.88	-9,325.88
	Closing Asset Base	326,404.96	317,079.08	307,753.20
	Total Opening	677,798.56	658,872.21	640,047.25
	Total Closing	658,872.21	640,047.25	621,222.29
Total Average		668,335.39	649,459.73	630,634.77
Southern Water				
Water	Opening Asset Base	774,587.75	754,117.41	733,649.69
	- Disposal	-100.00	-100.00	-100.00
	- Depreciation	-20,370.34	-20,367.71	-20,365.08
	Closing Asset Base	754,117.41	733,649.69	713,184.61
Waste Water	Opening Asset Base	661,834.39	644,319.02	626,806.27
	- Disposal	-100.00	-100.00	-100.00
	- Depreciation	-17,415.38	-17,412.75	-17,410.12
	Closing Asset Base	644,319.02	626,806.27	609,296.15
	Total Opening	1,436,422.14	1,398,436.42	1,360,455.96
	Total Closing	1,398,436.42	1,360,455.96	1,322,480.76
Total Average		1,417,429.28	1,379,446.19	1,341,468.36

Table 2 New assets (\$'000s)

		2012-13	2013-14	2014-15
Ben Lomond Water				
Water	Opening Asset Base	42,517.59	66,327.67	73,244.38
	+ Gross capex	25,748.06	9,120.09	5,637.27
	- Disposals	0.00	0.00	0.00
	- Depreciation	-904.97	-1,176.42	-1,280.36
	- 3rd party contributions	-1,033.01	-1,026.96	-1,026.33
	Closing Asset Base	66,327.67	73,244.38	76,574.96
Waste Water	Opening Asset Base	25,553.78	32,651.16	50,369.37
	+ Gross capex	8,449.03	19,283.16	23,079.87
	- Disposals	0.00	0.00	0.00
	- Depreciation	-480.78	-695.39	-1,031.93
	- 3rd party contributions	-870.87	-869.54	-873.50
	Closing Asset Base	32,651.16	50,369.37	71,543.81
Total Opening		68,071.37	98,978.83	123,613.75
Total Closing		98,978.83	123,613.75	148,118.77
Total Average		83,525.10	111,296.29	135,866.26
Cradle Mountain Water				
Water	Opening Asset Base	23,287.83	32,186.30	37,307.20
	+ Gross capex	11,130.26	7,915.12	10,054.12
	- Disposals	-44.00	-88.00	-88.00
	- Depreciation	-1,486.78	-1,985.23	-2,165.53
	- 3rd party contributions	-701.00	-721.00	-741.00
	Closing Asset Base	32,186.30	37,307.20	44,366.79
Waste Water	Opening Asset Base	13,835.00	21,686.78	29,927.07
	+ Gross capex	9,612.26	10,526.12	8,070.12
	- Disposals	-56.00	-56.00	-112.00
	- Depreciation	-1,003.48	-1,508.84	-1,868.91
	- 3rd party contributions	-701.00	-721.00	-741.00
	Closing Asset Base	21,686.78	29,927.07	35,275.28
Total Opening		37,122.83	53,873.09	67,234.26
Total Closing		53,873.09	67,234.26	79,642.07
Total Average		45,497.96	60,553.67	73,438.17
Southern Water				
Water	Opening Asset Base	92,669.44	107,638.32	124,864.71
	+ Gross capex	20,821.21	23,311.36	29,965.28
	- Disposals	0.00	0.00	0.00
	- Depreciation	-1,621.12	-1,914.61	-2,285.32
	- 3rd party contributions	-4,231.21	-4,170.35	-4,034.28
	Closing Asset Base	107,638.32	124,864.71	148,510.38

		2012-13	2013-14	2014-15
Waste Water	Opening Asset Base	15,754.45	53,893.81	89,961.46
	+ Gross capex	42,911.21	41,401.36	34,375.28
	- Disposals	0.00	0.00	0.00
	- Depreciation	-540.64	-1,163.36	-1,718.34
	- 3rd party contributions	-4,231.21	-4,170.35	-4,034.28
	Closing Asset Base	53,893.81	89,961.46	118,584.11
	Total Opening	108,423.89	161,532.13	214,826.16
Total Closing	161,532.13	214,826.16	267,094.50	
Total Average	134,978.01	188,179.15	240,960.33	

Upper, lower and statutory revenue limits

Table 3 Upper revenue limit (\$'000s)

		2012-13	2013-14	2014-15
Ben Lomond Water				
Water	RAB existing x WACC new	17,615.05	17,072.23	16,529.79
	RAB new x WACC new	2,894.43	3,711.52	3,984.02
	Depreciation existing	10,088.57	10,084.99	10,081.50
	Depreciation new	904.97	1,176.42	1,280.36
	O&M	20,611.36	21,093.26	21,786.78
	Total Water	52,114.38	53,138.42	53,662.45
Waste Water	RAB existing x WACC new	18,207.91	17,647.04	17,086.53
	RAB new x WACC new	1,547.79	2,207.69	3,241.93
	Depreciation existing	10,428.12	10,424.53	10,421.05
	Depreciation new	480.78	695.39	1,031.93
	O&M	20,130.61	20,601.27	21,278.61
	Total Waste Water	50,795.22	51,575.93	53,060.05
Total	102,909.60	104,714.35	106,722.50	
Cradle Mountain Water				
Water	RAB existing x WACC new	17,935.81	17,429.43	16,924.22
	RAB new x WACC new	1,475.18	1,847.98	2,171.89
	Depreciation existing	9,499.69	9,499.08	9,499.08
	Depreciation new	1,486.78	1,985.23	2,165.53
	O&M	16,770.69	16,933.41	17,504.94
	Total Water	47,168.16	47,695.12	48,265.65
Waste Water	RAB existing x WACC new	17,609.11	17,111.61	16,615.62
	RAB new x WACC new	944.60	1,372.52	1,733.87
	Depreciation existing	9,326.66	9,325.88	9,325.88
	Depreciation new	1,003.48	1,508.84	1,868.91
	O&M	16,770.69	16,933.41	17,504.94
	Total Waste Water	45,654.55	46,252.26	47,049.22
Total	92,822.71	93,947.39	95,314.87	

		2012-13	2013-14	2014-15
Southern Water				
Water	RAB existing x WACC new	40,651.53	39,562.90	38,474.41
	RAB new x WACC new	5,326.61	6,182.75	7,269.63
	Depreciation existing	20,370.34	20,367.71	20,365.08
	Depreciation new	1,621.12	1,914.61	2,285.32
	O&M	34,414.80	34,160.71	34,132.45
	Total Water	102,384.40	102,188.69	102,526.89
Waste Water	RAB existing x WACC new	34,733.41	33,801.93	32,870.60
	RAB new x WACC new	1,852.10	3,825.42	5,545.67
	Depreciation existing	17,415.38	17,412.75	17,410.12
	Depreciation new	540.64	1,163.36	1,718.34
	O&M	34,414.80	34,160.71	34,132.45
	Total Waste Water	88,956.31	90,364.17	91,677.18
Total	191,340.72	192,552.86	194,204.07	

Table 4 Statutory revenue limit (\$'000s)

		2012-13	2013-14	2014-15
Ben Lomond Water				
Water	RAB existing x WACC existing	9,077.55	8,797.82	8,518.28
	RAB new x WACC new	2,894.43	3,711.52	3,984.02
	Depreciation existing	10,088.57	10,084.99	10,081.50
	Depreciation new	904.97	1,176.42	1,280.36
	O&M	20,611.36	21,093.26	21,786.78
	Total Water	43,576.88	44,864.01	45,650.95
Waste Water	RAB existing x WACC existing	9,077.55	8,797.82	8,518.28
	RAB new x WACC new	2,894.43	3,711.52	3,984.02
	Depreciation existing	10,428.12	10,424.53	10,421.05
	Depreciation new	480.78	695.39	1,031.93
	O&M	20,130.61	20,601.27	21,278.61
	Total Waste Water	43,011.49	44,230.54	45,233.89
Total	86,588.37	89,094.55	90,884.83	
Cradle Mountain Water				
Water	RAB existing x WACC existing	9,242.85	8,981.89	8,721.55
	RAB new x WACC new	1,475.18	1,847.98	2,171.89
	Depreciation existing	9,499.69	9,499.08	9,499.08
	Depreciation new	1,486.78	1,985.23	2,165.53
	O&M	16,770.69	16,933.41	17,504.94
	Total Water	38,475.20	39,247.59	40,062.98

		2012-13	2013-14	2014-15
Waste Water	RAB existing x WACC existing	9,074.49	8,818.11	8,562.52
	RAB new x WACC new	944.60	1,372.52	1,733.87
	Depreciation existing	9,326.66	9,325.88	9,325.88
	Depreciation new	1,003.48	1,508.84	1,868.91
	O&M	16,770.69	16,933.41	17,504.94
	Total Waste Water	37,119.92	37,958.76	38,996.11
Total		75,595.12	77,206.35	79,059.08
Southern Water				
Water	RAB existing x WACC existing	20,948.92	20,387.92	19,826.99
	RAB new x WACC new	5,326.61	6,182.75	7,269.63
	Depreciation existing	20,370.34	20,367.71	20,365.08
	Depreciation new	1,621.12	1,914.61	2,285.32
	O&M	34,414.80	34,160.71	34,132.45
	Total Water	82,681.79	83,013.71	83,879.47
Waste Water	RAB existing x WACC existing	17,899.14	17,419.12	16,939.18
	RAB new x WACC new	1,852.10	3,825.42	5,545.67
	Depreciation existing	17,415.38	17,412.75	17,410.12
	Depreciation new	540.64	1,163.36	1,718.34
	O&M	34,414.80	34,160.71	34,132.45
	Total Waste Water	72,122.05	73,981.36	75,745.76
Total		154,803.84	156,995.07	159,625.23

Table 5 Lower revenue limit (\$'000s)

		2012-13	2013-14	2014-15
Ben Lomond Water				
Water	Interest	1,674.27	2,333.87	2,672.67
	ARA	13,324.28	13,324.28	13,324.28
	O&M	20,611.36	21,093.26	21,786.78
	Dividends	0.00	0.00	0.00
	Total Water	35,609.92	36,751.41	37,783.74
Waste Water	Interest	1,674.27	2,333.87	2,672.67
	ARA	9,466.83	9,466.83	9,466.83
	O&M	20,130.61	20,601.27	21,278.61
	Dividends	0.00	0.00	0.00
	Total Waste Water	31,271.71	32,401.96	33,418.11
Total		66,881.63	69,153.38	71,201.85

		2012-13	2013-14	2014-15
Cradle Mountain Water				
Water	Interest	3,063.50	3,066.50	3,098.00
	ARA	8,709.63	8,709.63	8,709.63
	O&M	16,770.69	16,933.41	17,504.94
	Dividends	0.00	0.00	0.00
	Total Water	28,543.82	28,709.54	29,312.57
Waste Water	Interest	3,063.50	3,066.50	3,098.00
	ARA	10,875.40	10,875.40	10,875.40
	O&M	16,770.69	16,933.41	17,504.94
	Dividends	0.00	0.00	0.00
	Total Waste Water	30,709.60	30,875.31	31,478.34
Total		59,253.42	59,584.85	60,790.90
Southern Water				
Water	Interest	5,898.78	7,106.22	7,895.50
	ARA	17,259.67	17,259.67	17,259.67
	O&M	34,414.80	34,160.71	34,132.45
	Dividends	0.00	0.00	0.00
	Total Water	57,573.25	58,526.61	59,287.62
Waste Water	Interest	5,898.78	7,106.22	7,895.50
	ARA	20,601.98	20,601.98	20,601.98
	O&M	34,414.80	34,160.71	34,132.45
	Dividends	0.00	0.00	0.00
	Total Waste Water	60,915.56	61,868.92	62,629.93
Total		118,488.81	120,395.53	121,917.55

