



# INTERIM PRICE MONITORING SUBMISSION - 2012-13

Submitted to the Queensland Competition Authority.

## INDUSTRY

Water Supply, Sewage Transport and Treatment

## BUSINESS UNITS

Water Distribution,  
Sewage Transport and Treatment, Trade Waste  
and Water Retail Services



Unitywater





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Brisbane QLD 4001

31 August 2012

Dear Mr Hall

**South East Queensland (SEQ) Interim Price Monitoring Submission 2012-13**

Please find attached Unitywater's third annual Interim Price Monitoring Submission to the Queensland Competition Authority (QCA). This submission contains Unitywater's forecast of water supply and retailing costs as well as sewage collection, transport and treatment costs for the 2012-13 to 2014-15.

The former State Government legislated to impose a CPI price cap for 2011-12 and 2012-13. That legislation provided Unitywater with the option to increase the 2012-13 water supply and sewerage service prices by 1.3%.<sup>1</sup> Unitywater has declared a freeze on water supply and sewerage service prices for the 2012-13 financial year. The price freeze will apply to all Unitywater prices with the exception of trade waste, recycled water and miscellaneous fees and charges. Unitywater's announcement delivers price relief, particularly at a time when many people are struggling with the rising cost of living. Unitywater's freeze on water supply and sewerage services for the 2012-13 financial year will save customers up to \$15 per account.

Unitywater's decision will not impact 24 hour service delivery, or the capital works program for 2012-13, and does not reflect any reduction in the need for significant investment in critical capital works to address growth, renewal, service standard or compliance issues in Unitywater's service area. Unitywater will continue to roll out investment in essential service infrastructure across its area of operations.

Unitywater's price freeze has been made possible by ongoing efforts to identify savings and customers are starting to see rewards due to economies of scale with services covering the combined Moreton Bay and Sunshine Coast Council regions.

Increases in bulk water charges are in the hands of the Queensland State Government and beyond Unitywater's control. Unitywater is required by law to pass through in full, any State Government decision on bulk water prices.

In addition, the existing State Government legislation requires participating councils to publish price mitigation plans and final price paths by 1 March 2013 for financial years to 30 June 2018.

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<sup>1</sup> ABS index number 6401.0 Brisbane March to March all groups CPI.



Unitywater considers the QCA price monitoring in addition to participant council price mitigation plans and final price paths, duplicates reasonable pricing oversight and increases operational costs. Unitywater holds the view that, the QCA's price monitoring role could be reviewed, and that may provide an opportunity to reduce operating costs.

Moreton Bay and Sunshine Coast Regional Councils as participants in Unitywater, utilise their returns<sup>2</sup> to contribute towards the quality and availability of social infrastructure within the Sunshine Coast and Moreton Bay regions. In 2012-13 Unitywater expects revenue to be below the Maximum Allowable Revenue (MAR), and that under recovery will have implications for Unitywater and its stakeholders.

To mitigate some of that risk, Unitywater has adopted a MAR Adjustment Transition Scheme (MAT scheme) to capture and carry forward revenue under-recoveries. Carried forward balances may be recouped in the future over a period to be determined with relevant stakeholders.

Unitywater has achieved much since it commenced operations on 1 July 2010 and remains committed to improving customer service, achieving operational efficiencies and providing high-quality, affordable and sustainable water supply and sewage collection, transport and treatment services that provide benefits to customers, community and the environment. Two recent examples of efficiency include the:

- Decision to divert sewage from the Brendale sewage treatment plant (STP) to Queensland Urban Utilities (QUU) Luggage Point STP that deferred Brendale STP augmentation saving \$25.7M; and
- Plan to divert sewage from the Suncoast STP by building a pipeline to the Maroochydore STP that will permit temporary decommissioning of the Suncoast STP rather than upgrading the plant saving \$13.0M.

Unitywater is committed to considering innovative solutions to address network constraints or to meet environmental standards and actively promotes such discussions amongst stakeholders and regulators. Traditional approaches of upgrading STP's to meet increasingly stringent environmental standards may, in some circumstances, be a more expensive option when a non-network alternative may address network constraints more cost-effectively. Examples of non-network alternatives may include undertaking works in the water catchment that reduces nutrient loads on receiving waters rather than investing in more advanced STP's.

Unitywater welcomes any opportunity to gain greater insight into the views of the QCA, interested stakeholders and customers on how Unitywater can:

1. Provide benefits through taking a whole of region approach to investment and management of water and sewerage infrastructure;
2. Minimise cost increases for customers;
3. Deliver innovative capital solutions;
4. Seek cost efficient environmental solutions;

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<sup>2</sup> Unitywater's returns to councils take the form of tax equivalents payments; interest on debt and participant returns.



5. Deliver savings through rationalisation, efficiency reviews and leveraging investment in new systems; and
6. Ensure long term sustainability, and balance between network and business risks and customer outcomes such as standards of services, reliability and security of quality drinking water supply and sewage collection, transport and treatment.

Unitywater's aim has always been, and will continue to be, to keep prices as low as possible, whilst reliably meeting customer obligations and maintaining the business as a credible water supply and sewerage service provider that customers and regulators trust.

Any queries relating to this submission can be emailed to [pricemonitoring@unitywater.com](mailto:pricemonitoring@unitywater.com) attention the Manager of Regulatory Affairs, Damian Platts. Media enquiries can be directed to [media@unitywater.com](mailto:media@unitywater.com) or contact the Unitywater Duty Media Manager on 0488 980 564.

Yours sincerely



George Theo  
**Chief Executive Officer**

**Attachment:** Interim Price Monitoring Submission 2012-13

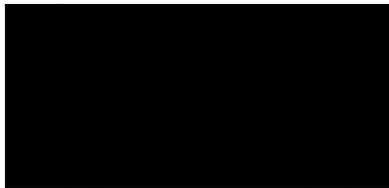


## Board Members Responsibility Statement

In the opinion of the Board Members of Unitywater:

- (a) The *price monitoring information returns* set out on pages 1 to 108 are drawn up so as to fairly represent, in accordance with the requirements of the SEQ Interim Price Monitoring Information Requirements issued by the Queensland Competition Authority, ("Information Requirements"):
  - (i) the information required by the Information Requirements;
  - (ii) the information on *related party* transactions required;
  - (iii) the information on *third party* transactions required by the Information Requirements; and
- (b) the terms and definitions used in this statement accord with the definitions set out in the Information Requirements.

Signed in accordance with a resolution of the Board.



Mr Jim Soorley  
Chairman

29/8/2012  
Dated

An extract of the Minutes of the Board Meeting at which the above attestation was made is attached to the Chief Executive Officer's covering letter accompanying this submission.

# TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	1
1. INTRODUCTION.....	9
2. PRINCIPLES AND ASSUMPTIONS.....	21
3. STATUTORY ACCOUNTS.....	25
4. REVENUE AND PRICING.....	27
5. SERVICE STANDARDS.....	37
6. DEMAND.....	45
7. REGULATORY ASSET BASE (RAB).....	53
8. CAPITAL EXPENDITURE .....	59
9. CONTRIBUTED / DONATED ASSETS .....	73
10. DEPRECIATION AND ASSET LIVES .....	77
11. INDEXATION OF ASSET BASE .....	85
12. RETURN ON CAPITAL .....	87
13. OPERATING EXPENDITURE .....	91
14. NON-REGULATED SERVICES .....	107

# EXECUTIVE SUMMARY

Unitywater is a statutory authority created by the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009*. The Queensland Government established Unitywater as a distributor-retailer as part of its water reform program and transferred responsibility for water supply and sewage transport and treatment services, together with associated assets from the Moreton Bay and Sunshine Coast Regional Councils, to Unitywater on 1 July 2010. In addition to the functions and core services transferred, Unitywater established supporting activities to better serve its customers.

## BALANCED CUSTOMER OUTCOMES AND KEY CONSIDERATIONS

Unitywater's 2012-13 IPMS reflects five key elements of Unitywater forecasts to ensure customers receive high quality, reliable, secure and safe water supply and sewerage services delivered in a cost efficient and prudent manner.

### 1. PROVIDE BENEFITS THROUGH TAKING A WHOLE OF REGION APPROACH TO INVESTMENT AND MANAGEMENT OF WATER AND SEWERAGE INFRASTRUCTURE.

Unitywater continues to take a whole of region approach and invest in capital projects in both the Moreton Bay and Sunshine Coast to deliver high quality, safe and reliable water supply and sewage collection transport and treatment to customers. Unitywater is achieving this in compliance with environmental licence conditions and continues to augment the water supply and sewerage networks to accommodate growth, asset renewal, and compliance requirements.

Previous under-investment in critical infrastructure, particularly on the Sunshine Coast, has forced Unitywater to invest significant funds to ensure compliance with environmental licence conditions and to create capacity to support population growth.

Unitywater is committed to funding critical capital works to support population growth, standards of service and meet the State Government's increasingly stringent environmental requirements. Over the next three years, Unitywater will commission capital works projects valued at approximately \$688.2M and incur \$889.0M in operating costs and maintenance activities.

Unitywater considers that efficiencies in delivery of the capital works program across its region benefits from the capital cycle in each region. In short, the combined capital works program provides for a smoother combined capital expenditure that permits greater efficiencies in planning, procurement and delivery than would be available to a smaller business.

Unitywater in response to legislative requirement and customer feedback, moved to in arrears quarterly billing for all customers, provided a new schedule of water meter reading from January 2012; launched an online construction projects information portal; simplified customer payment plans; and launched an easy to remember customer service phone number for general and account enquiries, faults and emergencies 1300 0 UNITY (1300 086 489).

Unitywater has initiated a user-pays approach to trade waste permits, controls, fees and charges that will see the same rules applied to all waste generators throughout Unitywater's area of operations.

Unitywater worked with Allconnex Water, and Queensland Urban Utilities to produce a draft SEQ Design and Construction (D&C) Code that provides joint technical standards relating to the design and construction of water supply and sewerage infrastructure in the SEQ region. The new SEQ D&C Code will create consistency across water supply and sewerage works in the region. A common set of

standards for everyone to follow across the region will give increased consistency, better long term service and ultimately, lower costs for customers.

## 2. MINIMISE COST INCREASES FOR CUSTOMERS.

Unitywater froze the 2012-13 prices for water supply and sewerage services, except for trade waste, recycled water and a small number of miscellaneous fees and charges.

Unitywater released its third pricing schedule for 2012-13 on 21 June 2012, freezing its water and sewerage access prices and not increasing by the permitted CPI increase of 1.3% for residential and small business customers in accordance with price-capping State Government legislation (*Fairer Water Prices for SEQ Amendment Act 2011*).

Unitywater maintained the application of the price freeze to its large business water and sewerage customers. However, the CPI cap did not apply to the State Government's bulk water charge, which increased by 14.05% in Moreton Bay and 20.15% on the Sunshine Coast (refer to Table 1 below). Unitywater is required to pass through the bulk water price increase in full to customers.

**Table 1** Unitywater prices for 2012-13 (\$M)

Description	MBRC 2011-12	MBRC 2012-13	% Change	SCRC 2011-12	SCRC 2012-13	% Change
State Government bulk charges <sup>1</sup> (water consumption) based on average kL/yr usage of 160.73 and 188.49	\$308.9	\$352.3	14.1%	\$252.6	\$303.5	20.2%
Unitywater Water usage charges <sup>2</sup>	\$28.3	\$28.3	No increase	\$101.4	\$101.4	No increase
Fixed Water access charges	\$346.0	\$346.0	No increase	\$232.1	\$232.1	No increase
Fixed access charges Sewerage – standard	\$744.9	\$744.9	No increase	\$570.8	\$570.8	No increase

Unitywater changed the billing for access charges from in advance to arrears in order to assist customers transitioning from six monthly to quarterly billing cycles.

Unitywater continues to work with Councils' in developing their price mitigation plans and final price paths for the 2013-14 year and beyond. Price and standards of service are key concerns and every effort is being made to provide least cost solutions to customers whilst ensuring safe, secure and reliable water supply and sewage collection, transport and treatment.

Unitywater's Board mandated budget savings that are incorporated in the forecasts contained in this submission. Unitywater is actively pursuing measures to rationalise costs that do not affect service delivery, recent measures include review of overheads and allocation; achieved significant reductions

<sup>1</sup> Usage charges based on average kL/yr of 160.73 and 188.49 for Moreton Bay and Sunshine Coast regions respectively

<sup>2</sup> ibid

in capital expenditure compared to previous council estimates, and approved 45 voluntary redundancies that will result in recurrent savings of approximately \$3.3M pa. Unitywater's initiatives have produced savings that outperform the QCA's 2% per annum compounding efficiency target, however this achievement will not reduce Unitywater's commitment to identify further cost reductions wherever possible.

Unitywater froze its 2012-13 prices and as such has absorbed the impact of the carbon tax resulting on items such as electricity, transport and chemicals. The operating cost increases are expected to be approximately 10.1% compared to 2011-12. Unitywater will monitor costs increases throughout 2012-13 to gain a better understanding of the impact the carbon tax has on input costs to the business.

### 3. DELIVER INNOVATIVE CAPITAL SOLUTIONS AND COST EFFICIENT ENVIRONMENTAL SOLUTIONS.

Unitywater has adopted three innovative sewage treatment capital solutions including:

- The first full year of operation of the diversion of sewage from Brendale to Luggage point that defers augmentation of the Brendale STP for several years by paying QUU to treat the diverted sewage from Arana and Ferny Hills saving \$25.7M;
- Plans to save \$13.0M by diverting sewage from the Suncoast STP by building a pipeline to the Maroochydore STP that will permit temporary decommissioning of the Suncoast STP rather than upgrading the current plant to a more stringent environmental licence. The plant and its current licence will be retained and return to service when growth in the catchment may require re-commissioning; and
- Planning wetlands at Maleny and Coolum as an alternative capital solution rather than STP augmentation.

Unitywater is investing in innovative solutions to address environmental and network requirements such as:

- Promoting a water sector regulatory test; nutrient offsets; load diversions and wet lands; to help find optimal value chain solutions e.g. undertaking works in the water catchment that reduces the nutrient loads on receiving waters rather than investing in more advanced STP's;
- Unitywater was nominated for and won multiple awards such as: National Riverprize; Queensland Program Innovation; Queensland Infrastructure Project Innovation; and Healthy Waterways; and
- Unitywater is attempting to identify and remove illegal stormwater connections to the sewer network through smoke testing. Removing illegal connections is more cost effective than augmenting the network to perform in all weather conditions and is expected to contribute to a reduction in wet weather overflow events.

### 4. DELIVER SAVINGS THROUGH RATIONALISATION, EFFICIENCY REVIEWS AND LEVERAGING INVESTMENT IN NEW SYSTEMS.

Unitywater is actively pursuing an operational efficiency of its property portfolio such as through the decision to develop the Northern Services Centre to provide a single facility to support field operations in the northern region of Unitywater's operating area. Unitywater undertook an independent review of its property portfolio to integrate the business across the operating area, to find operating efficiencies such as rent reduction and to improve customer service. Field operations in the northern region are

currently operating from nine separate locations. Co-location will result in time savings, integration of work practices, rationalisation of functional support, stores and facility maintenance.

Unitywater introduced a new billing and customer services system that provides for rolling quarterly billing and faster call centre response to customer enquiries and faults.

Over the last year Unitywater's Infrastructure Services Division (ISD) and Business Support Services Division (BSSD) became certified to international standards for environment systems (AS/NZS ISO 14001:2004) and quality management systems (AS/NZS ISO 9001:2008) by Compliance Australia. The scope of quality and environmental certification extends to all STP's, depots and pump stations operated by Unitywater. The scope includes all areas of the business that are managed by ISD and BSSD.

Unitywater is progressively introducing new information management systems and moving off council systems to a single set of region wide systems. Reducing reliance on legacy systems will deliver standalone capability such as Geographic Information Systems (GIS), supervisory control and data acquisition (SCADA), Consolidated Asset Management System (CAMS), Electronic Document Records Management System (EDRMS) and the Customer Service and Billing Solutions project (Unify).

Unitywater is also utilising a Global Position System (GPS) for vehicle tracking in order to deliver productivity improvements through more efficient dispatch, and to reduce response times of field crews to rectify customer service issues.

Unitywater's employees were covered by the SEQ Distribution and Retail Water Reform Workforce Framework 2009 (the Workforce Framework) which protected the terms and conditions of employment for employees affected by the transfer of water and wastewater functions from local governments to Unitywater. The Workforce Framework was due to expire 30 June 2013 however the State Government has legislated for the Workforce Framework to be repealed.

The Workforce Framework ensured that there are no forced redundancies, or no overall loss of employment, as a result of the water reforms within either the councils or the new water entities during the reform period. The Queensland State Government stated in the Workforce Framework objectives that labour savings are not, and never have been, a driver for water reform.

Unitywater continues to adhere to these objectives. This is made more critical as Unitywater becomes increasingly self-sustaining and less reliant on councils.

That said, even within the constraints of the Workforce Framework, Unitywater has made significant progress toward identifying efficiencies. For example, Unitywater's Certified Agreement No. 1 2011 delivered the following:

- Extending current working hours so that the workforce start and finish times are staggered, thereby more closely matching workforce availability with work volumes. This is being done to provide a better level of customer service and reducing costs associated with call out arrangements;
- Introducing afternoon shift work for field-based roles;
- On-site start/finish work arrangements for field service crews ; and
- Employees' pay parity across Unitywater's workforce (i.e. same work/same pay).

## 5. ENSURE LONG TERM SUSTAINABILITY

Unitywater is taking steps to ensure long term financial sustainability of the water supply and sewerage services it provides by working with councils to prepare their price mitigation plans and final price paths to 2018 which may involve tariff reform. Unitywater and councils are attempting to balance prices against network and business risks, financial sustainability and maintaining customer service standards for water supply and sewerage services in a cost efficient way.

Unitywater is providing for sustainable economic development by upgrading the STP's at Maleny, Cooroy, Woodford, South Caboolture, Brendale, and Burpengary East and by upgrading sewage pump stations; replacing trunk valves; and relining sewers throughout Moreton Bay and Sunshine Coast.

Unitywater will commence in 2012-13 public consultation on its Netserv plan documentation that will aid transparency regarding how Unitywater manages the network. Unitywater also looks forward to participating in the QCA's discussions on forecasting demand for different purposes such as Fire standards, capital works planning and pricing. Demand is a key factor in estimating the cost and timing of capital investment necessary to maintain customer services standards and quality of water supply and sewerage services.

### PRICE MONITORING FRAMEWORK

In this submission, Unitywater continues to propose two enhancements to the price monitoring framework to assist transitioning toward cost reflective water and sewerage treatment prices whilst mitigating price shocks to customers:

- Maximum Allowable Revenue Adjustment Transition Scheme (MAT Scheme) - is intended to capture and index annually current and prospective revenue under (over) recoveries, being the difference between actual revenues and Maximum Allowable Revenue (MAR)<sup>3</sup>. Unitywater expects the MAT scheme will operate until such time as Unitywater's prices are set to recover MAR, and these under (over) recoveries would then be included in accordance with a QCA-approved price path over a period to be determined; and
- Capital Contributions Tax Adjustment (CCTA) - The existing regulatory framework does not recognise income tax payable by Unitywater on receipted cash contributions for infrastructure. To address this omission, CCTA proposes to calculate tax costs associated with cash contributions received (for Local Government TER purposes gifted assets are excluded from Taxable Income), and reduce MAR by the value of gifted assets and cash contributions receipted into Unitywater net of the unfunded tax on receipt of those contributions.<sup>4</sup> The receipted value of the gifted assets and cash contributions will continue to be rolled into the Regulatory Asset Base (RAB) in accordance with the standard revenue offset method.

For this 2012-13 information return, Unitywater has estimated that after freezing prices and not adjusting prices by the State Government's CPI price cap on tariff prices, Unitywater revenue will under-recover \$22.2M when comparing MAR of \$254.1M with expected revenue of \$232.0M 2012-13.

<sup>3</sup> MAR is an abbreviation for maximum allowable revenue which is the product of a standard regulatory building blocks approach to determine the benchmark efficient cost of providing the relevant service.

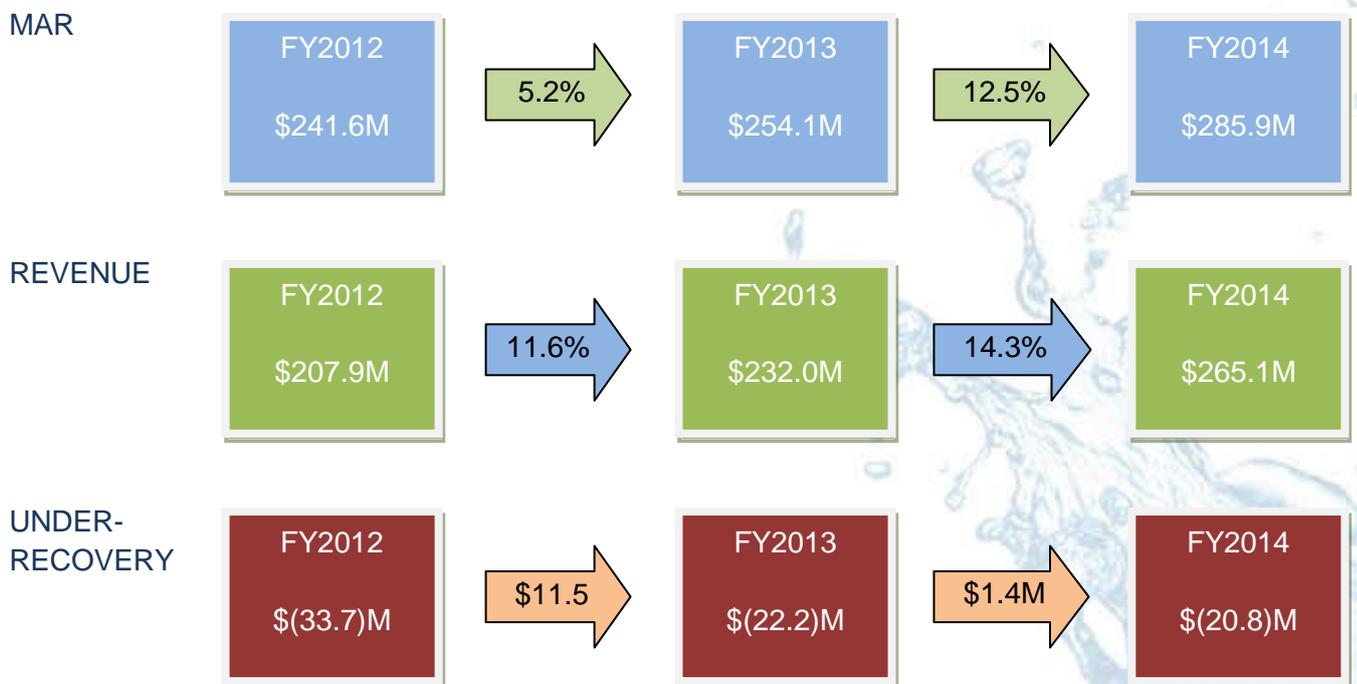
<sup>4</sup> The calculation will be: total capital contribution less gifted assets = cash contributions \* (tax rate\*(1 – gamma)), where gamma is the product of dividend distribution rate and theta the value applicable to a dividend imputation credit.

Unitywater is conscious of moderating price increases for customers. This was reflected in its decision to under-recover in 2010-11 and in 2011-12 and further by freezing prices for 2012-13 demonstrates Unitywater's commitment to customers.

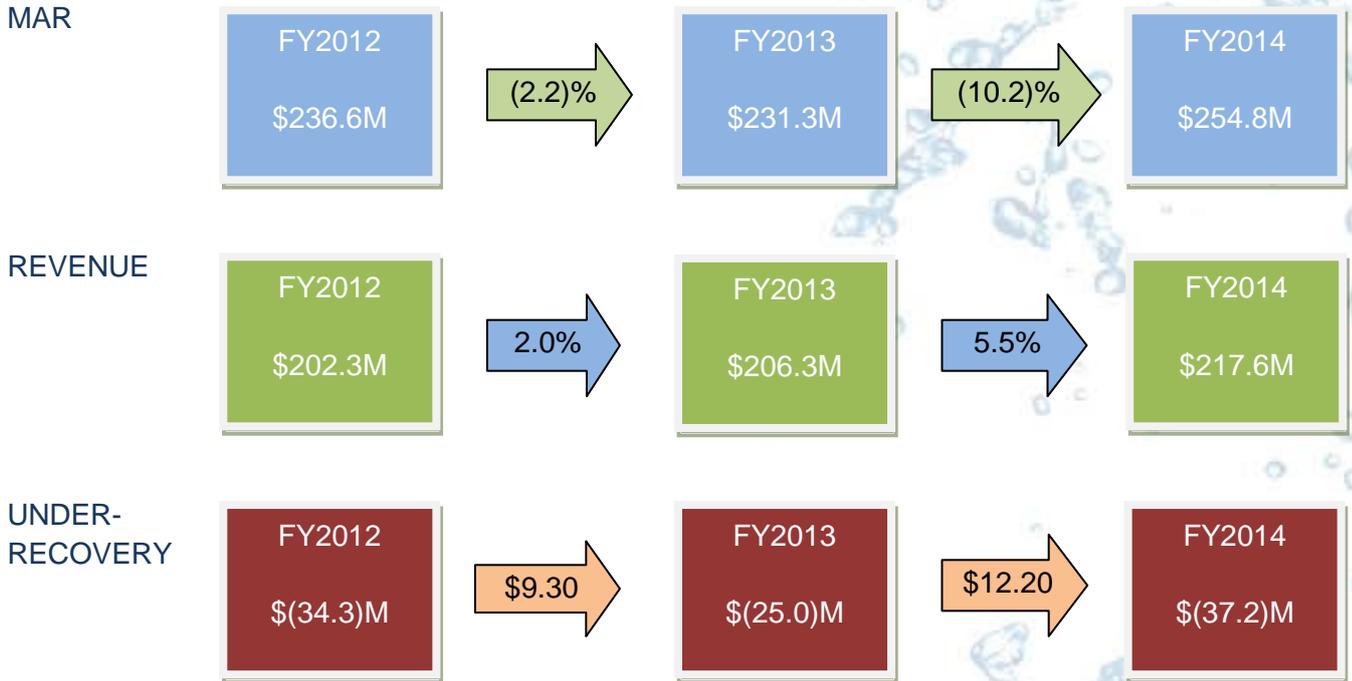
The period of price-smoothing of any under-recoveries will be considered by Unitywater in consultation with the QCA. The three-year revenue forecast presented in this interim price monitoring submission is not based on an NPV-neutral glide path and is indicative only, as it does not include any information on local government PMPs or final price paths.

In determining MAR, Unitywater intends to retain the revenue offset approach for the treatment of contributed and donated assets. Unitywater will review this approach annually as information and the regulatory environment develop. The level of under-recovery for the three years of budget forecasts for water and sewerage services is indicated in the Diagram 1 (below) and Diagram 2 (overleaf):

**Diagram 1** Water services – Forecast revenue compared to MAR



**Diagram 2** Sewerage services – Forecast revenue compared to MAR



The forecast under-recoveries demonstrate that Unitywater’s under-recovery over the three year forecast period is approximately \$96.5M, in addition to the QCA’s assessment that Unitywater under-recovered MAR in 2010-11 by \$20.6M, resulting in a cumulative under-recovery of MAR by up to \$117.1M in nominal terms by 30 June 2014.

Unitywater would like to meet with the QCA (prior to the publication of their draft report – SEQ Interim Price Monitoring for 2012-13) to further discuss the MAT scheme to record and carry forward MAR under (over) recoveries for possible recovery in future periods.



# 1. INTRODUCTION

Unitywater was established on 1 July 2010 under the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009* to provide potable and recycled water supply; as well as the trade waste and sewage collection, transport and treatment services previously provided by Moreton Bay and Sunshine Coast Regional Councils. Unitywater provides water supply and sewerage services to an estimated resident population of 748,770 with 278,474 water supply connections and 253,275 sewer connections across the 5,223 km<sup>2</sup> region. Unitywater's water infrastructure assets include:

- 18 sewage treatment plants (STP's);
- 2 advanced water treatment plants (AWTP's);
- 108 drinking water reservoirs and 8 recycled water reservoirs;
- 5,542 kilometres of trunk and water reticulation mains pipeline;
- 5,352 kilometres of sewerage mains pipeline;
- 777 sewage pump stations and 79 water pumping stations; and
- 79 kilometres of recycled water network.

An independent Board appointed by Unitywater's Participating Councils is responsible for ensuring the organisation maintains the quality, reliability and security of water supply, as well as the collection, transport and treatment of trade waste and sewage in compliance with environmental licences.

Unitywater's two participating councils receive returns from Unitywater in accordance with a Participation Agreement.<sup>5</sup> Returns to Participating Councils contribute towards the quality and availability of social infrastructure within Sunshine Coast and Moreton Bay Regional Council's areas.

## 1.1. REGULATORY PRICE MONITORING

The former Premier and Treasurer of Queensland referred Unitywater's monopoly distribution and retail of water supply, trade waste and sewage collection, transport and treatment services to the QCA, for three annual price monitoring reviews starting 1 July 2010 and concluding 30 June 2013.

In June 2011, the former State Government passed legislation applying a CPI price cap on the distributor-retailer component of water supply and sewerage service prices for certain customer groups.<sup>6</sup> The CPI price cap did not apply to the bulk water component of customer accounts and Unitywater is required by legislation to pass on the full bulk water price increases to customers.

Unitywater applied the CPI cap to its 2011-12 water supply and sewerage services (residential and business customers irrespective of annual usage<sup>7</sup>), however for 2012-13 the Unitywater Board chose to freeze water supply and sewerage service prices and not increase them by the permitted CPI of 1.3%. That decision saves customers up to \$15 per annum for 2012-13.

The former Treasurer and Minister for State Development, Minister for Finance and Minister for The Arts, signed an Amended Minister's Direction Notice to the QCA on 29 June 2011. That Direction amended instructions to the QCA to take into consideration the CPI price cap legislation.

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<sup>5</sup> The Participation Agreement is available at <http://unitywater.com/About-us/Participation-agreement.aspx>

<sup>6</sup> Queensland; Fairer Water Prices for SEQ Amendment Act 2011 Act No. 21 of 2011

<sup>7</sup> Unitywater will review annually large business customers price rises as part of its pricing and tariff reform process

The QCA's 2010-11 and 2011-12 price monitoring reviews concluded there was no evidence of an exercise of monopoly power, and that Unitywater had under-recovered its MAR by approximately \$20.6M<sup>8</sup> and \$56.8M<sup>9</sup> respectively.

For the 2012-13 interim price monitoring review the QCA will publish information requirements for Unitywater to complete, in the form of the *SEQ Interim Price Monitoring Information Requirements for 2012-13* (the information requirement), including a suite of spreadsheet templates.

This document and the accompanying completed templates forms Unitywater's response to the information requirement and is the third interim price monitoring submission to the QCA.

## 1.2. UNITYWATER SERVICES

Within its geographical area Unitywater:

- Provides customers with drinking-quality water supply;
- Collects, transports and treats sewage and trade waste for disposal as environmentally safe wastewater into rivers and ultimately Moreton Bay;
- Reticulates recycled water to commercial and residential customers;
- Operates and maintains water supply and sewerage system infrastructure;
- Plans and delivers new infrastructure to maintain services standards and meet customer growth in compliance with stringent environmental standards which often requires older sewage treatment plants to be upgraded to meet modern standards;
- Contribute toward environmental outcomes for rivers and beaches throughout the Sunshine Coast and Moreton Bay regions that in turn support tourism and recreational pursuits;
- Contribute to positive environmental and ecosystem outcomes within Moreton Bay Marine Park and Pumicestone Passage by ensuring wastewater returned to the environment does not adversely impact the health of waterways, estuaries, ecosystem and Moreton Bay;
- Provides 24 hour emergency response to water supply and sewage service interruptions; and
- Manages customer accounts including meter reading, meter maintenance, customer billing and customer service.

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<sup>8</sup> QCA, Final Report SEQ Interim Price Monitoring Part A – Overview March 2011, pi

<sup>9</sup> QCA Final Report SEQ Interim Price Monitoring Part A – Overview March 2012, pii

### 1.3. QUEENSLAND TREASURY POPULATION ESTIMATES

Unitywater's service area spans 5,223 square kilometres, with an estimated residential population of 748,770<sup>10</sup> at 30 June 2012 which represents approximately 16.3%<sup>11</sup> of Queensland's total population. Population estimates indicate growth in Unitywater's customer base over the next 20 years to 819,268 residents by 2016 and 1,041,347 residents by 2031.

This represents expected population growth of 39.1% over the next two decades which is slightly lower by 3.8% compared to Queensland Treasury's Office of Economic and Statistical Research (OESR) equivalent estimates published a year ago.

Unitywater acknowledges this will have implications on long term sequencing and timing of infrastructure augmentation, however it is not expected to impact the capital or operating programs contained in this submission for the three financial years concluding 30 June 2015.

The above estimates are based on OESR forecasts published in April and June 2012. Due to time lags, Unitywater's capital and operating expenditure programs and demand forecasts detailed in this submission are based on slightly higher, OESR 2011 published population estimates.

Recently within Unitywater's area of operations, Caboolture West was announced with an estimated population of 60,000 residents.<sup>12</sup> Unitywater's current capital forecasts do not include infrastructure necessary for this development, work is now underway to plan and sequence for Caboolture West.

### 1.4. SEWAGE DIVERSION AN EXAMPLE OF OPTIMISING ASSET UTILISATION

Participating Councils transferred a portfolio of assets to Unitywater, of varying capacities, condition, technologies and performance. Unitywater each day learns more about the condition of its network of pipes, pumps and treatment plants and is constantly considering opportunities to optimise its infrastructure utilisation. The benefits of optimised asset utilisation may include deferral of capital augmentation and more efficient sewage collection, transport and treatment services.

For example capital expenditure has been deferred at the Brendale STP by diverting some of the sewage load to Queensland Urban Utilities' STP facility at Luggage Point, the diversion commenced in July 2012. This is one specific example of network optimisation and also highlights cooperation between distributor-retailers to pursue efficient solutions that benefit customers through lower costs.

More recently in late 2011, Unitywater's Board decided to defer augmentation of the Suncoast STP by planning to build a pipeline and transfer sewage to the Maroochydore STP that has existing capacity to treat the sewage under its current environmental licence. This will defer approximately \$14.8M capital expenditure and optimise utilisation of existing environmental licences.

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<sup>10</sup> Office of Economic and Statistical Research (OESR), Queensland Treasury, Population and housing profile April 2012 for Moreton Bay and Sunshine Coast Regional Councils.

<sup>11</sup> OESR, Queensland Treasury and Trade Population Growth Highlights and Trends, Queensland 2012, June 2012 Queensland population estimate at September 2011 of 4,599,360.

<sup>12</sup> <http://dlgp.qld.gov.au/local-area-planning/caboolture-west.html>

### 1.5. UNITYWATER'S SERVICE AREA

Diagram 3 (below) shows Unitywater service area<sup>13</sup> noting that much of the service area coastline borders the Moreton Bay Marine Park. The Marine Park has varying levels of environmental sensitivity according to the health of the receiving waters, ecosystem and other environment factors.

**Diagram 3** Unitywater's service area.



<sup>13</sup> Source: Healthy Waterways Annual Report 2010.

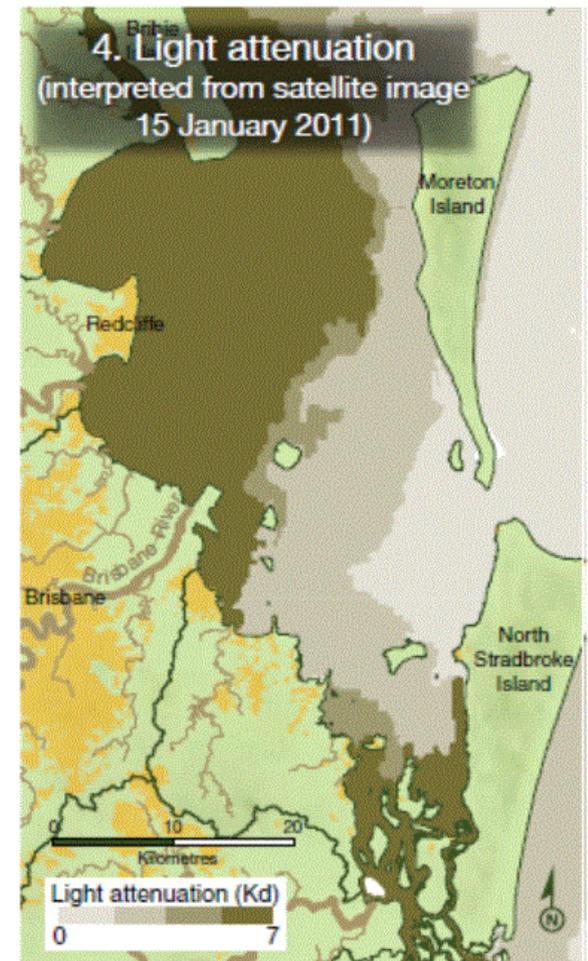
## 1.6. CHALLENGES OF NEIGHBOURING MORETON BAY MARINE PARK

Unitywater operates much of its network within a unique hydrologic cycle.<sup>14</sup> Unitywater's coastal location borders sensitive sea grass and mangrove ecosystems. Most of Unitywater's treated sewage ultimately blends into the Moreton Bay Marine Park adjacent to Unitywater's service area.

The natural currents of Moreton Bay are influenced by the East Australian current deflecting off Moreton Island and influencing Moreton Bay waters to move in a clockwise direction. The current means that outflows from Brisbane River, and the STP's that discharge into the Brisbane River, hug the coast and plume northward along coastline adjacent to Unitywater's service area and receiving waters.<sup>15</sup>

Diagram 4 (below) vividly demonstrates the January 2011 flood plume as it moved to the northern sections of Moreton Bay and Unitywater's service area coastline. This supports other data suggesting a clockwise movement of water in Moreton Bay.

**Diagram 4** January 2011 Flood Plume<sup>16</sup>



<sup>14</sup> Hydrologic cycle is an application of hydrology; being the study of the movement, distribution, and quality of water, within a geographical area

<sup>15</sup> Healthy Waterways Newsletters #1, February 2011 and #3 April 2011 demonstrating the January 2011 flood plume from the Brisbane River flowed to the north and out of Moreton Bay through the North passage

<sup>16</sup> ibid

Nutrient loaded receiving waters are compounded to some degree by water catchment infrastructure that has reduced the Pine River's ability to flush and renew its river mouth and assist to clear northern sections of Moreton Bay.

The nutrient carrying and discharge capacity of rivers flowing into the northern sections of Moreton Bay are therefore more constrained than would otherwise be the case, and it is that impact on the river's health that makes STP augmentations, and the obtaining of new environmental licences more complex and expensive.

Unitywater considers a law of diminishing returns applies to STP augmentation and the compliance with stricter environmental licence conditions. Therefore investing in potential alternative nutrient or pollutant reduction initiatives may achieve greater economic efficiency and environmentally benefits that continual focus on STP licence conditions.

In Unitywater's experience, increasingly stringent environmental licence conditions attached to new or upgraded STP licences may not be the best allocation of resources when STPs in Unitywater's catchment contribute approximately 10% of the nitrogen in local river systems. Unitywater considers greater investment in and focus on the sources of the remaining 90% would achieve more beneficial outcomes.

Unitywater suggests measures such as riparian revegetation, modification of farming practices, addressing storm water particulate and pollutant run off, and/or modifying industry practices in other sectors that have a direct impact on both river systems and Moreton Bay may be more cost-effective measures to achieve positive environmental outcomes than further imposts on STP design to meet increasing sewage loads and tighter discharge limits.

Whilst growth may require high volume STP augmentations, river systems may benefit more from maintaining STP licence conditions at the current environmental standards and including alternative non-network river system nutrient removal such as incentivised agricultural practice modification and greater riparian areas alongside waterways.

Unitywater submits that coordinated and open discussion amongst a range of stakeholders including economic and environmental regulators, instrumentalities and departments is necessary to achieve alignment of policy objectives of healthy waterways and easing cost of living pressure on customers.

Unitywater would welcome the opportunity to participate in such a discussion, and to assist the QCA to prepare a discussion paper on developing a specialised water sector regulatory test (Wet Test) focusing on the Total Water Cycle Management Plans (TWCMP) that may consider:

- Demand side management;
- Operating expenditure solutions;
- Network augmentation options with multivariate and multidisciplinary prioritisation and option assessment; and
- Nutrient offsets such as alternative investment to reduce pollutants, sediment or nutrients within a catchment more affordably than traditional STP augmentation to meet increasingly stringent environmental licences.

The first three points are already being considered as part of Unitywater's existing capital expenditure option assessment process. However no tool currently exists to support non-network investment on

private or public lands to achieve better water system outcomes. It is our intention to encourage this investment through the TWCMP.

Unitywater suggests stakeholders and regulators facilitate a workshop to discuss developing a regulatory test for non-network investments, that may also support initiatives such as nutrient offsets or trading or investment in natural assets such as riparian or water catchment forestation that may also provide carbon credits or offset.

Unitywater would be pleased to work with the QCA on developing economically efficient opportunities that may presently exist but have not been encouraged within the current legislative, regulatory and environmental control frameworks.

### 1.7. UNITYWATER STRATEGIC PLAN 2011-2016

Unitywater's first two years of operations has been one of endings and new beginnings. Unitywater met the challenge of establishing the business and launching into the market as a new statutory authority on 1 July 2010, with Unitywater-branded staff as the face of a major institutional reform for South East Queensland.

Since this date Unitywater has quickly moved towards establishing a consolidated water supply and sewerage services business. Unitywater has and will continue to maintain a professional approach and commitment to providing customer service.

Whilst consolidation of systems and processes continues, it is evident through the extreme weather events of January 2011 that Unitywater's key achievement has been establishing the capability and morale to respond to adversity as a united team with the combined skills and knowledge of two workforces integrated into one. Unitywater is implementing sophisticated technologies and processes, and has already been awarded for innovation in water quality testing in its first year of operations.

As Unitywater builds capability and looks to minimise risks, there continues to be evolving reform in the SEQ water sector. Unitywater will continue to focus on long term economic, social and environmental sustainability and will continue to update the Strategic Plan as events unfold.

Unitywater's four strategic objectives of Customer Satisfaction, Integrated Whole-of-Region Business, Proud, Productive People, and Sustainable Value and Growth remain unchanged; however, some supporting strategies have been re-prioritised from the previous strategic plan to meet the evolving needs of customers and the environment.

Within the Sustainable Value and Growth strategic objective, Unitywater will look to deliver innovative capital solutions and will ensure long-term financial sustainability rather than just driving efficiencies. In addition to positively influencing stakeholders, Unitywater is committed to community engagement with positive social actions in the coming years.

As Unitywater aligns with the updated strategic agenda for 2011 to 2016 the aim is to create sustainable, win-win conditions for all stakeholders and become a respected community contributor.

**Diagram 5** Unitywater’s Strategic plan 2011-2016



**Unitywater Strategic Plan 2011-2016**

**Our Purpose**

To deliver water to customers and to collect, transport and then treat their sewage

**Our Vision**

To be a sustainable, industry-leading, community and customer oriented water and allied services business

**Our Values**

**Safe**

- We have safety as our primary priority and believe it is the responsibility of all staff in Unitywater
- We are committed to providing safe water supply and sewerage services

**Responsive**

- We listen and respond to our customers' needs
- We work cooperatively with our suppliers towards mutual benefit
- We work with our regulators to meet their requirements

**Sustainable**

- We promote a workplace where people are empowered and focus on continuous improvement
- We are innovative in the delivery of our products and services
- We make decisions that balance the best interests of the business, customers, staff, the community and the environment
- We seek to understand and minimise our impact on the surrounding environment

**Our Strategic Objectives and Strategies**

**Customer Satisfaction**

- Meet our customers' expectations
- Positively influence our stakeholders and engage our community

**Integrated Whole-of-Region Business**

- Deliver water supply and sewerage services
- Consolidate operations
- Integrate ICT systems

**Proud, Productive People**

- Zero Harm
- Develop a flexible and skilled workforce
- Foster a commercial culture

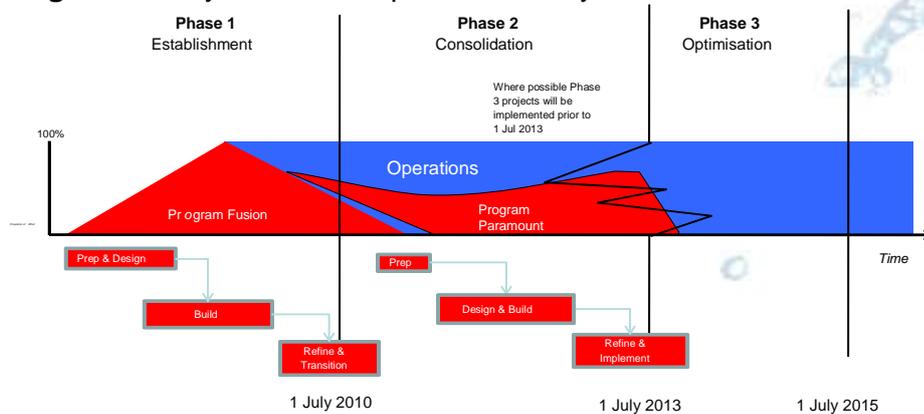
**Sustainable Value and Growth**

- Ensure long-term financial sustainability
- Innovatively sustain our environment
- Deliver innovative capital solutions

## 1.8. UNITYWATER DEVELOPMENT PATHWAY

Unitywater is implementing a three-phase program to fully develop the business and its operational capability. This is summarised in Diagram 6 (below).

**Diagram 6** Unitywater Development Pathway



Program Paramount is the management approach being used by Unitywater to deliver the second, or consolidation, phase. Paramount is a program of work made up of 24 projects centrally coordinated by a Program Management Office (PMO).

The focus of Program Paramount was to identify opportunities for efficiencies and implement the systems and processes required for a mature business. The program is investing in delivery of a mix of people, process and system initiatives such as:

- Implementation of customer service and billing system;
- Implementation of a consolidated asset management system;
- Establishment of a GIS capability;
- A consolidated, central call centre.

Program Paramount is providing capability on which Unitywater will deliver its efficiency and service delivery performance goals.

The first phase was completed on 30 June 2010, and involved the transfer of the two councils' water and sewerage assets, staff and customers to Unitywater and the establishment of necessary service level agreements to ensure business continuity. Unitywater's governance, quality and performance frameworks were also established.

Unitywater continues to identify incremental roles, functions and responsibilities that necessitate support staff in addition to the two operating business units that were transferred to Unitywater from the Moreton Bay Regional Council and the Sunshine Coast Regional Council.

This is made more critical as Unitywater becomes increasingly self-sustaining and less reliant on service level agreements with councils for ICT systems.

The second phase, aligns with the price monitoring period (1 July 2010 to 30 June 2013), and is currently underway. It involves progressing consolidation of Unitywater, and implementing new systems and processes. In doing so, an important part of this phase is to identify and capture economies of scale arising from Unitywater's service area, asset base and program of work.

The final phase reflects activities and the transition towards a fully developed business, including refinement and optimisation of business systems and processes, with an aim to be a best practice provider of water reticulation, sewage and trade waste treatment services.

### 1.9. UNITYWATER ORGANISATIONAL STRUCTURE

The budget approved by Unitywater's Board for 2011-12 reflects the organisational structure in Diagram 7 (below).

**Diagram 7** Unitywater Structure



### 1.10. INTERIM REGULATORY FRAMEWORK

The SEQ regulatory framework is evolving and uncertain. Unitywater is effectively operating under a price cap without the associated regulatory framework to assist to mitigate volume risk.

Unitywater has introduced a regulatory under (over) recovery scheme termed the MAT Scheme. The MAT scheme captures under (over) recoveries of MAR and carry's forward amounts for potential future price paths. The MAT scheme account is discussed further in Section 4.

### 1.11. CPI PRICE CAP ON DISTRIBUTOR-RETAILER COSTS

The State Government passed legislation in June 2011,<sup>17</sup> that introduced CPI-capped price rises for the distributor-retailer portion of charges for water and sewerage services supplied to residential and small business customers. The CPI measure uses March-to-March Brisbane CPI for the 2011-12 year and the 2012-13 year.

The CPI increase for 2011-12 was 3.6% on Unitywater's current fixed water and sewerage access charges and water usage charges in 2010-11. The State Government CPI price cap does not apply to its own bulk water charges. The charge for bulk water will be increased by 16.5% in Moreton Bay and 25.2% on the Sunshine Coast in 2011-12.

The available CPI increase for 2012-13 was 1.3% on Unitywater's current fixed water and sewerage access charges and water usage charges in 2011-12. The State Government CPI price cap does not

<sup>17</sup> Fairer water prices for SEQ Amendment Bill 2011, Subdivision 2 Caps.

apply to its own bulk water charges. The residential charge for bulk water will increase by 14.0% in Moreton Bay and 20.1% on the Sunshine Coast for 2012-13.

Unitywater's Board decided to freeze prices and not increase the 2012-13 tariffs by CPI, this action has saved customers up to \$15 per annum and reflects Unitywater's achievements in finding innovative capital solutions and efficiencies.

Unitywater implemented the price freeze on water supply and sewerage service charges and applied it to all customers (with the exception of trade waste, recycled water and miscellaneous fees and charges).

The State Government legislation required the CPI price cap not to be affected by rebate or subsidy changes in any local government region. Moreton Bay Regional Council committed to continue its water rebate to customers in 2011-12 and was the only council in Queensland that provides water subsidies to their ratepayers. For 2012-13 Moreton Bay Regional Council is understood to be reducing its rebate

The State Government's decision to cap Unitywater's price rises at CPI does not negate the need for significant investment in critical capital works in the Moreton Bay and Sunshine Coast regions. Unitywater will continue to invest in essential infrastructure and determine a price path to recover the cost over future periods.

### 1.12. PRICE MITIGATION PLANS

The State Government legislation introduced in June 2011<sup>18</sup>, introduced a requirement for councils to publish Price Mitigation Plans (PMP's) detailing how they propose to mitigate price rises after the CPI-capped period ends on 30 June 2013.

The legislation requires Participating Councils to Publish an initial PMP by 1 September 2011 and a final PMP by 1 March 2013. The final PMP is also to provide final price paths for water and sewerage services for the period from 1 July 2013 to 30 June 2018 inclusive.

There is an obligation to provide a copy to the Minister and for local governments to publish a copy of the PMP on the local government's website, in a newspaper circulating in their local area; and ensure a copy of the plan is available for inspection at the local government's public offices.

PMP's are unlimited in terms of flexibility but they are required to include:

- The price path for increases in charges that moderates impacts on customers;
- The policies the Participating Councils intend to adopt to help particular customers;
- How the community will be kept informed about increases; and
- The extent to which Unitywater's profits paid to Participating Councils are applied to provide subsidies or rebates to water supply and sewerage service customers.

The final price path is to be published by 1 March 2013 and must state graduated price increases for the charges during the period that moderate the effect of increases on customers.

Unitywater must take all reasonable steps to ensure it implements the final price path. Unitywater is cooperating with Participating Councils to prepare PMP's and Final Price Paths, the form and nature

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<sup>18</sup> Fairer water prices for SEQ Amendment Bill 2011, Part 2 Participating local government price mitigation documents.

of final price paths will have implications for tariff reform and Unitywater will consider future pricing implications and tariff reform in consultation with relevant stakeholders.

### 1.13. EMERGING CAPABILITIES AND INFORMATION CONSTRAINTS

When Unitywater was formed in November 2009 and subsequently assumed ownership and responsibility for water and sewerage assets from 1 July 2010, the change created opportunities to adopt new management practices to: innovate; refine business processes, systems, improve operational performance; and invest to meet stricter environmental controls on wastewater releases, customer growth and service standards.

Unitywater is addressing these matters as well as concurrent legacy issues associated with under investment in assets, tariff structures, systems, processes and supplier contracts received from Participating Councils.

Unitywater, through its gateway expenditure approval processes, continues to challenge and assess the prudence, efficiency and delivery of expenditure to maintain the existing network and to meet network demands from customer growth, service standards or environmental requirements.

In its first year of operations Unitywater enjoyed early success in deferring and reducing capital and operating expenditure. Unitywater is currently developing its Netserv Plan<sup>19</sup> and that process has provided a framework for the business to continue to find innovative ways to address network constraints, environmental issues and customer growth.

Within Unitywater, many systems and processes that would be typical of an established business are under development or have been introduced but require time and data before benefits can be realised.

For example, Unitywater has commissioned phase 1 of CAMS that will better inform capital expenditure planning and maintenance. One of the benefits of this undertaking is reduction in unplanned asset outages, resulting from enhanced ability to analyse condition and performance data. Another benefit will be improved planning to carry out preventative asset maintenance prior to asset failure or to lengthen asset lives in service.

Unitywater's forecasts in this submission are based on best estimates; however they are likely to change as Unitywater gains operational experience and familiarity with performance and condition of its assets in service.

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<sup>19</sup> NetServ Plan is the new Water Network Service Plan introduced by the Queensland Water Commission which each of the distributor-retailers in SEQ must prepare by 1 July 2013 covering their water and wastewater services. The NetServ Plan brings together, or replaces requirements under the Sustainable Planning Act, the Water Supply (Safety and Reliability) Act and the Environmental Protection Policy (Water). The Queensland Water Commission has the power to make guidelines for the preparation of a NetServ Plan and for the content of a NetServ Plan (including matters required to be included in a plan required under the Water Supply (Safety and Reliability) Act).

## 2. PRINCIPLES AND ASSUMPTIONS

This section sets out the principles and assumptions used in compiling this submission and in populating the information requirement templates.

### 2.1. PRINCIPLES

Information provided by Unitywater reflects the substance of each transaction in order to disclose a complete and accurate picture of events with best available estimates at the time of preparing this submission.

Historical information provided for 2009-10 is consistent with council records to the extent information was made available to Unitywater. Forecast information for 2011-12 is based on Unitywater's quarter three estimates and information for 2012-13 is consistent with Unitywater's Board approved budget.

Information provided in the completed templates is at a disaggregated level and detailed models have been developed to facilitate cost allocation between regions and services. Revenue and asset information has also been disaggregated.

Diagram 8 (below) sets out how Unitywater has disaggregated costs as required by the QCA. The forecast data underlying each service is collated at a cost centre, project code and natural account level.

**Diagram 8** Disaggregation of information



The precise application of the above disaggregation for costs, assets and revenues, together with any specific information constraints or assumptions, are set out in the following sections of this report or documented within the populated templates or supporting work papers.

## 2.2. BUDGET ASSUMPTIONS

Unitywater constructed its 2012-13 budget based on a combined methodology of: zero based costs, and historic values escalated for growth and cost, and any known scope changes.

Table 2 (below) provides a summary of the budget approach for key revenue and cost items.

**Table 2** Budget Methodology

ELEMENT	ZERO BASED	HISTORICAL/EXTRAPOLATED
<b>Revenue</b>		
Utility Revenue	✓	
Fees and Charges (including trade waste)		✓
Other Revenue		✓
Capital Revenue		✓
<b>Operating Costs</b>		
Bulk water costs	✓	
Retail operating costs	✓	
Corporate costs	✓	
Distribution operating costs:		
- Employee expenses	✓	
- Electricity costs	✓	
- Chemical costs		✓
- Contractor expenses	✓	✓
- Materials and services	✓	✓
- Licence or regulatory fees <sup>20</sup>	✓	
- Indirect taxes	✓	
<b>Capital Expenditure</b>	✓	

<sup>20</sup> Regulatory fees are as per notice from the QCA and have increased by 5.8%, well in excess of the CPI price cap.

Unitywater developed its chart of accounts to facilitate financial reporting requirements to capture data for management, regulatory and statutory purposes. This means that the structure aligns with information requirements for cost categorisation as advised by the QCA in 2011.

The account string used for reporting purposes comprises an organisation unit, project code, activity and natural account:

- The organisation unit assigns a unique code to various areas of business. Examples of organisational codes are mechanical services, electrical services, and finance;
- The project code identifies separate capital projects, continuing service delivery projects and operational projects, preventative or reactive maintenance;
- The activity code allows differentiation of costs based on various activities; and
- Natural accounts are grouped by revenue, expenses, assets, liabilities and participating council's contributions in the form of equity and are further categorised as per sub groups and account types for reporting purposes.

Selection codes are assigned to projects in order to provide the QCA's activity and service level reporting. Similarly, cost categories were used to align budget reporting to regulatory classifications mapped on an individual project and natural account basis.

To promote transparency of disaggregated revenues and costs to the QCA, a copy of Unitywater's chart of account structure mapped to regulatory classifications is provided as part of the working papers in the Revenue and Cost Allocation Model.

The following budget rules were applied in 2012-13:

- All expenses and revenues were budgeted in nominal dollars with separate escalation of cost increases;
- Price and growth escalation factors were applied according to cost categories on budget consolidation for forward year projections after adjusting for identified scope changes;
- Capital and operational projects were assumed to have internal labour and material costs included in the total project cost estimates;
- Labour budgets reflected various working arrangements of employees and included on-costs, overtime and annualised allowances;
- For retail and corporate business functions, labour establishments were created including staff costs for employees transferred from the two regional councils. Further refinement of staff establishments will be required. Changes will occur primarily due to the fluidity of services provided in-house compared to services provided under service level agreements from the respective councils. Additional functional realignments will mean that functional reporting and the organisational structure will evolve as Unitywater gains operational experience and management focus (refer to as per Program Paramount); and
- The capital budget was originally based on planning databases from the respective council water businesses with the addition of zero based expenditure estimates for ICT equipment, plant and fleet, retail billing system etc. Unitywater has since fully planned its system capital expenditure for 2012-13 and continues to work on longer-term forecasts. As part of Unitywater's NetServ plan and continuing development of the capital expenditure gateway approval process, a fully justified capital forecast will be developed.

### 2.3. PRICE ON CARBON – IMPACT EXCLUDED FROM ESTIMATES

The Federal Government's proposed carbon tax impact on Unitywater, will be to increase the cost of operations and capital expenditure. At present, the rate and timing of any increases remain uncertain due primarily to two factors:

- Existing contractual obligations; and
- In many instances Unitywater is a terminal user in a value chain, meaning that upstream firms must first consider the impacts on their products and services and communicate to their customers (such as those of Unitywater) price rises associated with the carbon tax.

In many cases the products and services on which Unitywater relies are carbon intensive in their production, such as electricity, chemicals, plastics, cement, steel, aluminium and copper.

As such, forecast prices and revenue from 1 July 2012 are indicative only. Unitywater expects it will also take some time to understand the full implications of carbon pricing on all its inputs to production.



### 3. STATUTORY ACCOUNTS

This section describes Unitywater's statutory accounting information for 2010-11 and estimated year-end statutory accounting information for 2011-12, 2012-13, 2013-14 and 2014-15.

Unitywater is currently compiling its financial statements for its second year of operations, being 2011-12. Unitywater submits Table 3, Table 4 and Table 5 provided in this section, as indicative profit and loss, balance sheet and cash flow statements prepared from draft results.

#### 3.1. SUMMARY OF STATEMENT OF PROFIT AND LOSS

Table 3 (below) presents summary forecast of the profit and loss statement. Comparisons in expenditure between 2010-11 and 2011-12 to later years should be made with caution due to concerns regarding the historical data set and the emerging nature of Unitywater's business. Operating revenue and expenditures represent Unitywater's third quarter estimates of full year results, which in some instances are materially understated, for example capital revenue.

The statutory profit and loss statement presented in Table 3 (below) and provided in template 5.1.1 has been prepared based on the results for 2010-11. The detailed profit and loss statement included in template 5.1.1 represents the operating revenue and operating expenditure calculated in the Q3 estimates. A balancing adjustment has been included in the template to align these revenues and expenses to the draft results. All other accounts presented in template 5.1.1 (depreciation, tax and dividends) have been updated as per the draft results.

**Table 3** Summary of profit and loss (\$M)

	FY2011	FY2012	FY2013	FY2014	FY2015
Revenue	\$473.7M	\$484.9M	\$508.6M	\$556.6M	\$605.8M
Expenditure	\$212.9M	\$237.8M	\$263.0M	\$296.7M	\$330.4M
Earnings after tax	\$ 65.3M	\$57.9M	\$61.1M	\$74.0M	\$75.7M

As indicated above Unitywater's 2010-11 accounts achieved earnings after tax of \$65.3M and estimate \$57.9M 2011-12. This represents a change in earnings after tax of (11.3)% between the two periods.

### 3.2. SUMMARY OF BALANCE SHEET

Table 4 (below) presents a summary of Unitywater's balance sheet based on draft results. The figures presented will be updated when Unitywater's 2011-12 financial statements have been finalised and audited.

**Table 4** Summary of Balance Sheet (\$M)

	FY2011	FY2012	FY2013	FY2014	FY2015
Assets	\$2,894.4M	\$2,977.3M	\$3,078.8M	\$3,312.7M	\$3,545.3M
Liabilities	\$1,449.0M	\$1,519.9M	\$1,605.1M	\$1,684.2M	\$1,749.1M
Equity	\$1,445.4M	\$1,457.4M	\$1,473.6M	\$1,628.6M	\$1,796.2M

The estimates provided illustrate an anticipated increase in equity of 0.8% (\$12.0M) from 2010-11 to 2011-12. Total equity is forecast to increase to \$1,796.2M in 2014-15.

### 3.3. SUMMARY OF CASH FLOW

Table 5 (below) presents a summary of Unitywater's cash flow.

**Table 5** Summary cash flow (\$M)

	FY2011	FY2012	FY2013	FY2014	FY2015
Opening Balance	\$0.0M	\$69.7M	\$25.1M	\$18.5M	\$10.4M
Operating Cash flow	\$155.3M	\$189.4M	\$224.5M	\$183.6M	\$214.4M
Investing Cash flow	\$(162.1)M	\$(167.3)M	\$(174.1)M	\$(149.7)M	\$(152.4)M
Financing Cash flow	\$76.5M	\$(66.8)M	\$(57.0)M	\$(41.9)M	\$(61.7)M
Closing Balance	\$69.7M	\$25.1M	\$18.5M	\$10.4M	\$10.7M

The estimates provided illustrate an anticipated decrease in cash available at 30 June 2012 from that at 30 June 2011 of (64.0)%, being \$25.1M. The total cash available is forecast to decrease to \$8.0M in 2014-15.

### 3.4. REGULATORY ADJUSTMENTS

The regulatory adjustments have been provided to the QCA in the information templates accompanying this submission.

## 4. REVENUE AND PRICING

This section describes Unitywater's approach to pricing, and revenue.

### 4.1. PRICING PRINCIPLES

Unitywater has adopted five principles in its interim pricing:

- Price freeze for 2012-13 and cooperatively working with Participant Councils to implement Price Mitigation Plans and develop Final Price Paths;
- Transition toward standardising services and prices across the Unitywater service region;
- To reform tariffs taking into consideration principles considered by the Productivity Commission, Regulators, National Water Initiative, and National Competition Policy;
- Reduce complexity for customers and developers; and
- To provide returns to Participant Councils, in accordance with the Participation Agreement and councils Final Price Paths and Price Mitigation Plans.

### 4.2. MAR UNDER (OVER) RECOVERIES

The pricing in 2010-11, as indicated in the QCA's final report<sup>21</sup>, resulted in Unitywater receiving revenue approximately \$20.6M below MAR (water by \$13.9M, and sewerage by \$6.7M). Actual results for the 2010-11 confirmed the under recovery and that value is calculated to be \$37.6M (water by \$11.3M, and sewerage by \$28.0M).

The QCA's 2011-12 final report<sup>22</sup>, indicated prices and estimates of Unitywater revenue would be \$56.1M below MAR (water by \$43.1M, and sewerage by \$13.0M). The actual results for the 2011-12 are not yet available to confirm the estimate.

Unitywater indicated in its previous two IPMS submissions that achieving MAR immediately would result in significant price shocks to customers. Smoothing price paths over a number of years would be required to permit time for tariff reform, consultation and standardisation.

Considering an appropriate time period over which to achieve cost reflective pricing, it is important that the future regulatory framework and pricing principles are developed. At present, the water regulatory framework in Queensland is uncertain, especially the QCA's role as the economic regulator during the incumbency of Participating Council's Final Price Paths.

### 4.3. MAT SCHEME

Unitywater has consistently committed to carrying forward under (over) recoveries between revenue and MAR on a net present value (NPV) neutral basis for possible future recovery over a timeframe yet to be determined.

Unitywater proposed a MAT scheme to provide certainty. If Unitywater under recovers, it impacts the amount of work that Unitywater can undertake and ultimately the returns to Participating Councils. Moreton Bay and Sunshine Coast Regional Council's receive returns from Unitywater's operation; and

<sup>21</sup> QCA, Final Report SEQ Interim Price Monitoring Part B March 2011 page 226

<sup>22</sup> QCA, Final Report SEQ Interim Price Monitoring Part B March 2012 page 363

those returns contribute toward the quality and availability of social infrastructure in the Sunshine Coast and Moreton Bay regions.

The purpose of the MAT scheme is to capture and annually index under (over) recoveries from providing water supply and sewerage services to Moreton Bay and Sunshine Coast customers until such time as Unitywater's prices achieve MAR.

The clearing of the under (over) recovery balance may occur through establishing a medium term price path in consultation with relevant stakeholders. After the balance is cleared, prices will be set to achieve MAR.

Unitywater submitted as an appendix to its 2011-12 IPMS a paper prepared by Synergies Economic Consulting on the appropriateness, form and operation of the MAT scheme.

#### 4.4. CONTRIBUTED CASH AND ASSETS – CONTINUE REVENUE OFFSET

Unitywater has retained the revenue offset approach for capital contributions in the form of cash and gifted assets. Unitywater will continue to review this position as circumstances and discussions develop.

Unitywater considers there to be several administrative and practical limitations associated with full asset offset and is assessing options to move towards a partial asset offset approach. For example, gifted assets might be treated as an asset offset, but not cash contributions.

Unitywater plans to align any move to partial asset offset with tariff reform or pricing adjustments and minimise unnecessary price fluctuation.

#### 4.5. REGULATORY FRAMEWORK

During the last financial year, the regulatory framework and pricing principles have not progressed. The Government's CPI price cap legislation and removal of the QCA's deterministic regulatory role from 1 July 2013 has led to uncertainty in terms of approach, principles and parameters regarding pricing, the form of regulation and tariff reform.

Participating Councils are developing Final Price Paths to 2018 in an environment where the regulatory framework following the conclusion of interim price monitoring period ceases is unknown. This leads to high levels of regulatory and financial risk.

The legislated CPI price cap placed greater volume risk on Unitywater. Unitywater cannot control water demand; particularly without price and tariff reform with prices CPI capped to June 2013 and with the State Government controlling water conservation measures.

Permanent water conservation measures and policy setting do not reflect economic incentives that use price to encourage water efficiency and investment in alternatives to address demand or treatment standards of sewage.

#### 4.6. BILLING SYSTEMS

Unitywater has migrated to a single billing system from the previous two customer billing systems, one from each of the participating councils.

The billing engine has transitioned all customers to quarterly billing in arrears for access changes and water consumption. Rolling meter reads also reduce the processing time between meter read and accounts being mailed to customers.

#### 4.7. INITIAL PRICING WORK FOR 2011-12

Consistent with the above stated principles, Unitywater has continued to progress tariff reform, to the extent possible during the CPI price cap period, and is cognisant of the Participating Councils' Price Mitigation Plans and Final Price Paths as they develop over time.

During 2010-11 Unitywater undertook tariff reform across all core services, by announcing water and sewerage prices for residential customers, had finalised trade waste, recycled water and miscellaneous fees and charges and was close to finalising non-residential water and sewerage prices when the State Government legislated the CPI price cap in addition to capping developer charges. Due to the legislation and constraints of the billing systems of the day, tariff reform was not completed in 2010-11 but remains a work stream Unitywater will progress over time.

#### 4.8. IMPACT OF STATE GOVERNMENT IMPOSED CPI PRICE CAP

The State Government imposed a CPI price cap on Unitywater's water and sewerage services, access and water consumption charges for specified customers<sup>23</sup> groups, excluding the bulk water pass through, in 2011-12 and 2012-13.

The operation and billing system reality is that Unitywater has had to apply the cap to all water and sewerage service customers for 2011-12, and limit price increases by less than or equal to 3.6%.<sup>24</sup>

Billing system restrictions and the desire to avoid customer confusion meant that Unitywater, in implementing the CPI cap, also had to defer tariff reform for water and sewerage services, until 2013-14 at the earliest.

The State Government CPI price cap is legislated to apply in 2011-12 and 2012-13. Unitywater's Board decided to freeze the 2012-13 prices at the 2011-12 levels, a decision that has saved the average customer up to \$15 per annum.

During 2011 legislative amendments were introduced requiring Participating Councils to prepare Price Mitigation Plans that demonstrate how the council intends to mitigate price impacts over the five years following the end of the State Government CPI price cap to 30 June 2018.

The plans were published in 2011 and the final price paths are due to be published by March 2013. For the purposes of this submission Unitywater assumed the prices increase by CPI for 2013-14 and 2014-15. This assumption does not prejudice the future decisions of the Councils and does not create a benchmark or precedent for prices in those years. It is merely a simplifying assumption necessary to forecast revenue for this 2012-13 IPMS purposes.

Trade waste and recycled water were excluded from the CPI price cap legislation and Unitywater proceeded with tariff reforms for these services.

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<sup>23</sup> Specified customers include residential customers and non-residential customers likely to consume less than 100kL of water per annum and any other customer who passes on charges to either of these groups.

<sup>24</sup> CPI increase did not apply to trade waste, recycled water, miscellaneous fees and charges or large business customers

Recycled water historical prices were inconsistent between the regions and the price levels were well below even the short term variable costs of supply. During 2010-11 harmonisation between the regions was achieved and the first year of a three year price path implemented.

In the case of trade waste, progress towards harmonisation and reform is continuing. Planned reforms involve clear separation of three principle components of permit fees, volumetric charges and strength charges.

#### 4.9. REVENUE FOR EACH SERVICE BY REGION

Unitywater's second quarter year end forecasts were used for 2011-12. For 2012-13 to 2014-15 forecasts have been obtained by applying the prices adopted and the quantities as outlined in Section 6 Demand.

The majority of this revenue for the core services is utility revenue the remainder is revenue from miscellaneous fees and charges. Revenue is used to offset the MAR before the setting of prices.

All revenue from non-regulated services relates to fees and charges. Table 6 (below) shows the level of revenue from each service for Moreton Bay and Table 7 (below) for Sunshine Coast.

**Table 6** Moreton Bay revenue by service

Services (\$M)	FY2011	FY2012	FY2013	FY2014	FY2015
Drinking Water	91.6	112.9	122.2	138.5	156.9
Other Core Water	10.3	8.9	10.6	11.2	11.8
Sewage via Sewer	108.4	115.3	116.9	125.5	134.7
Trade Waste	1.2	1.6	1.4	1.5	1.6
Non Regulated	3.5	2.6	2.5	2.7	2.8
<b>Revenue from Services</b>	<b>214.9</b>	<b>241.3</b>	<b>253.6</b>	<b>279.3</b>	<b>307.8</b>

Note: Other core water services include provision of recycled water with the majority of the revenue from a contract with one commercial entity for the Murrumba Downs Recycled Water Plant.

**Table 7** Sunshine Coast revenue by service

Services (\$M)	FY2011	FY2012	FY2013	FY2014	FY2015
Drinking Water	67.2	83.7	96.9	112.2	124.8
Other Core Water	2.4	2.4	2.3	2.4	2.5
Sewage via Sewer	85.1	84.1	86.3	93.4	101.2
Trade Waste	1.4	1.3	1.8	1.9	2.0
Non Regulated	1.8	2.9	2.4	2.6	2.7
<b>Revenue from Services</b>	<b>157.9</b>	<b>174.5</b>	<b>189.6</b>	<b>212.5</b>	<b>233.2</b>

Note: all values are in nominal dollars.

**Table 8** Reasons for increasing forecast revenue

Drinking Water	Rises in revenue are due to passing through increases in bulk water costs, and some volume growth associated with population increases and development. The increasing revenue is also a function of additional capital expenditure required to augment inherited assets to meet licence conditions and growth.
Sewage via Sewer	Rises in revenue are a function of additional capital expenditure required to augment inherited assets to meet licence conditions and growth in development and population.
Other Core Water	Fluctuation predominantly reflects contractual arrangements for Murrumba AWTP. Other recycled water revenue may increase as prices become more cost reflective.
Trade Waste	Increases relates to growth in trade waste customers and tariff reform of strength and volume charges.

Revenue from non-regulated activities are detailed in the completed QCA templates. Non-regulated services for 2012-13 are covered in more detail in section 14.

Unitywater has completed templates for 2012-13 for major revenue items within utility charges (e.g. water access), fees and charges (e.g. connection fees) and other revenue specified. Where possible the quantity and average price are provided.

Minor items are grouped together (e.g. other fees and charges due to the large number of low volume fees and charges), these reflect a relatively small proportion of total revenue.

#### 4.10. CLASSIFICATION BY CUSTOMER GROUP

Due to data limitations, Unitywater used the percentage of residential and non-residential customer revenue for both water and sewerage to calculate utility charge revenue.

The only commercially negotiated agreements are in relation to recycled water. Information on the disaggregation of other revenue between categories is unavailable and has been aggregated into the 'other revenue' category.

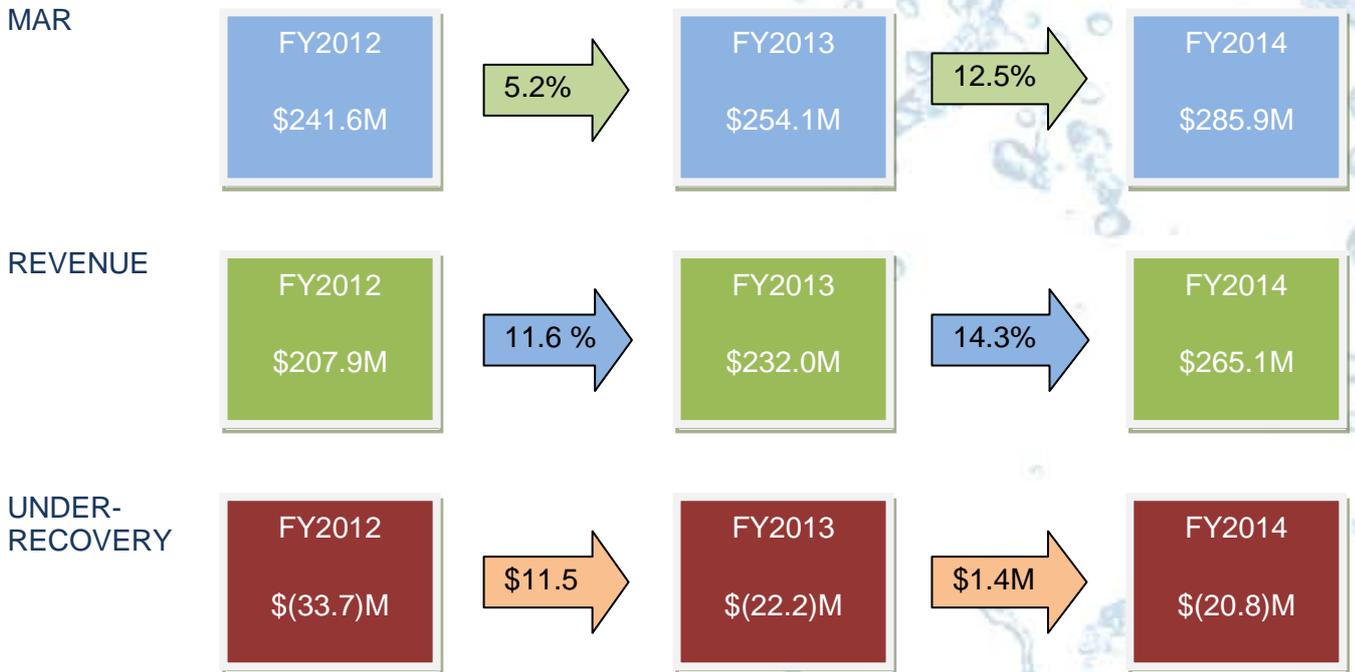
#### 4.11. FORECAST REVENUE COMPARED AGAINST MAR

Unitywater in its pricing for 2012-13 froze prices and did not increase by the permitted CPI, this saved customers up to \$15 per annum. For 2011-12 the prices were limited in accordance with the State Government imposed CPI price cap.

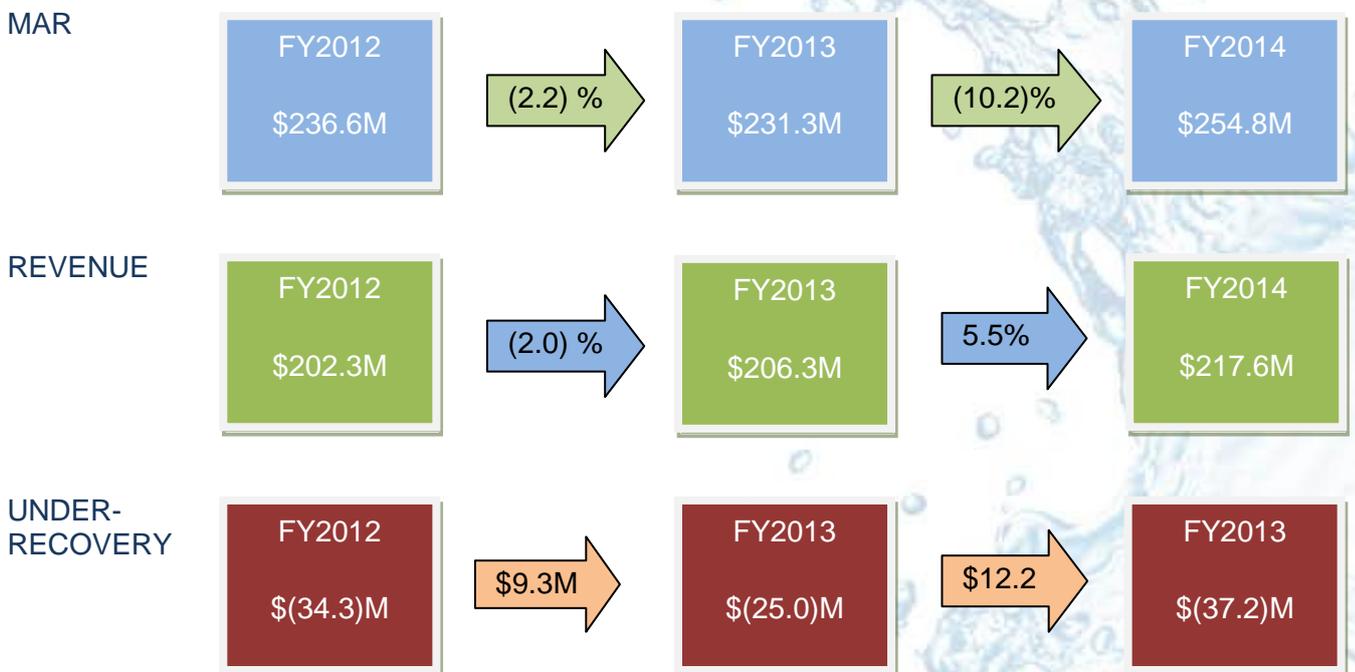
Prices for 2013-14 and beyond will be strongly influenced by Participating Council Final Price Paths and Price Mitigation plans and tariff reform.

Under recovery in 2012-13 has been estimated and for the purpose of the MAT scheme may be included in future price setting formulas. Under-recovery for water supply is shown in Diagram 9 (overleaf), and sewerage services are shown in Diagram 10 (overleaf).

**Diagram 9** Water supply – revenue compared to MAR during Interim Price Monitoring



**Diagram 10** Sewerage services –revenue compared to MAR during Interim Price Monitoring



Under-recovery demonstrates Unitywater’s prices have been inadequate to cover costs of providing water supply and sewerage services. Cumulative under-recovery of MAR over the interim price monitoring period is estimated to be \$117.0M.

The QCA has already assessed Unitywater under recovered 2010-11 MAR by \$20.6M, and in 2011-12 MAR by \$34.3M. Future under recovery of MAR will be highly dependent on Participating Councils Final Price Paths and forecasts to 2015 in this submission are indicative only.

Unitywater will continue to operate its MAT scheme and record and carry forward MAR under (over) recoveries for possible inclusion in future periods. Unitywater recognises that this will be subject to local government Price Mitigation Plans and Final price Paths.

#### 4.12. SIDE CONSTRAINTS

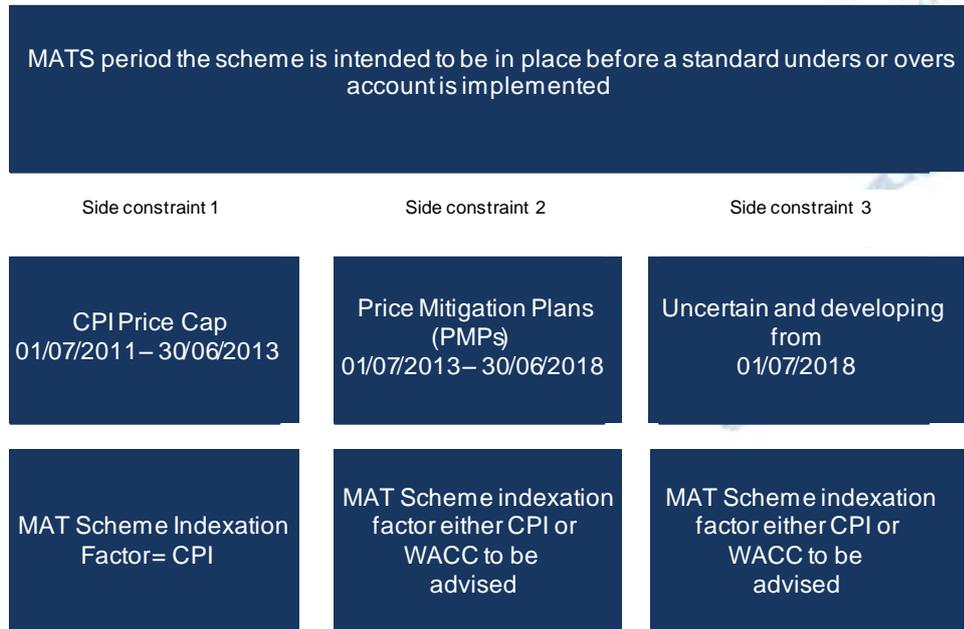
Side constraints describe a method to limit the size of annual price changes and thereby reduce price volatility. In general they are symmetrical in operation and smooth the annual price impact of adverse or beneficial events. Unitywater is also subject to the State Government's changes to the *Sustainable Planning (Housing Affordability and Infrastructure Charges Reform) Amendment Act 2011*, this has impacted the levels of capital revenue and is discussed further in Section 9.

While this is not considered a side constraint this has increased pressure on utility charges to fund the infrastructure necessary to deliver water and sewerage services.

Diagram 11 illustrates the time period over which the MAT scheme is intended to operate and the current and future side constraints on Unitywater's tariff pricing. Firstly the CPI price cap, followed by the local government PMPs and ultimately a side constraint that Unitywater may define which may reflect the MAT Scheme tolerance limits.

The side constraints are as follows:

- CPI price cap on distributor-retailer charges in operation until 30 June 2013. Note Unitywater Board froze prices in 2012-13 and did not increase water supply or sewerage services by the permitted CPI saving customers up to \$15 per annum;
- The local government PMPs to be published by 1 March 2013 and in operation until 30 June 2018; and
- Unitywater may propose a side constraint (yet to be determined) in consultation with the applicable regulator, at that time.

**Diagram 11** Unitywater side constraints current and foreseeable

#### 4.12.1. CPI PRICE CAP EXCLUDES STATE GOVERNMENT BULK WATER CHARGES

The State Government legislation enacted in June 2011,<sup>25</sup> introduced a side constraint in the form of a CPI<sup>26</sup> cap on SEQ distributor-retailer water and sewerage services charges supplied to specified residential and small business customers in 2011-12 and 2012-13.

For 2011-12 the result was a CPI cap increase of 3.6% for Unitywater's fixed water and sewerage access charges and water usage charges. The State Government's CPI price cap does not apply to bulk water charges. The bulk water charge increased by 16.5% in Moreton Bay and 25.2% on the Sunshine Coast for 2011-12.

For 2012-13 the permitted CPI cap increase was 1.3% for Unitywater's fixed water and sewerage access charges and water usage charges. Unitywater did not apply the CPI price increase and instead froze prices at the 2011-12 prices. Again the State Government's CPI price cap does not apply to bulk water charges which for residential increased by 14.0% in Moreton Bay and 20.1% on the Sunshine Coast for 2012-13.

Unitywater applied the CPI price cap in 2011-12 and the price freeze in 2012-13 to all customers irrespective of volume usage, and did not separate customers by the State Government definition of specified customers based on usage of 100kL of drinking water per year.

The State Government legislation required the CPI side constraint not to be affected by any rebate or subsidy changes in a local government area for 2011-12 or 2012-13. Moreton Bay Regional Council is committed to continue its water rebate to customers and is the only council in SEQ that provides water subsidies to its ratepayers.

The State Government's decision to cap Unitywater's price rises at CPI does not negate the need for immediate and significant investment in critical capital works in Moreton Bay and Sunshine Coast

<sup>25</sup> Fairer water prices for SEQ Amendment Bill 2011, Subdivision 2 Caps

<sup>26</sup> CPI is defined as March-to-March Brisbane CPI

regions. Unitywater will continue to invest in essential infrastructure and determine a price path to recover the costs over future periods in consultation with Participating Councils.

#### 4.13. PRICE MITIGATION PLANS

The State Government legislation in June 2011<sup>27</sup>, introduced a side constraint in the form of PMPs that detail how the local government proposes to mitigate the impact on customers for relevant charges after the CPI price cap period ends on 30 June 2013.

The legislation requires an initial PMP published by 1 September 2011, and a final PMP by 1 March 2013. The final PMP is required to provide the final price path for water supply and sewage collection, transport and treatment services provided by the distributor-retailer for the period from 1 July 2013 to 30 June 2018.

There are obligations placed on the Participating Council to provide a copy of its Price Mitigation Plan and Final Price Paths to the Minister and to publish a copy on the local government's website; in a newspaper circulating in its local government area; and ensure a copy of the plan is available for inspection at the public offices of the Participating Council.

Price Mitigation Plans are not limited in terms of flexibility but they must include:

- The final price path for the introduction of increases in charges that moderates the impact of these increases on customers;
- The policies the Participating Council intends to adopt to help particular customers;
- How the community will be kept informed about the increases;
- The extent to which Unitywater's profits paid to Participating Councils are applied to provide subsidies or rebates to users of water supply or sewage collection, transport or treatment services.

Final price paths are to be published by 1 March 2013 and must state graduated price increases for charges during the period that moderate the effect of the increases on customers. Unitywater must take all reasonable steps to ensure it implements the final price paths.

##### 4.13.1. FUTURE PRICING

Unitywater will consider the necessity for additional side constraints for the period after 1 July 2018. Consideration will take into account tariff reform progress, outcomes of the previous two side constraints and the applicable regulatory framework at that time.

In general terms, it is Unitywater's view that detailing a side constraint necessitates addressing any MAR under-recovery either through:

- An under-recovery mechanism with tolerance limits that may reflect regulatory precedent applied by the QCA; and/or
- Community service obligation payment or alternative financial arrangement.

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<sup>27</sup> Fairer water prices for SEQ Amendment Bill 2011, Part 2 Participating local government price mitigation documents



## 5. SERVICE STANDARDS

This section sets out Unitywater's current published service standards and the past service standards approved by the regulator.

### 5.1. DEFINITIONAL ISSUES

Unitywater is required to provide details relevant to each deemed category and customer group in terms of the information for deemed categories. This section provides details of aligned service standards, and presents those service standards as provided to customers.

In terms of customer groups, generally the same service standards apply across all customer groups. The QCA's definition of customer group includes customers with commercially negotiated arrangements or where customers' prices are not included in the entity's pricing schedule. Unitywater does not have separate contractual arrangements with customers in relation to these activities and core services, although it does have customer-specific arrangements for trade waste in some instances.

Tradewaste agreements are effectively an approval to discharge into the sewer network, and are condition based depending on the types of discharge (strength, toxicity and volume). Service standards relate to the acceptable quality and quantities/flow rates. This information return does not set out the details of each agreement.

Unitywater has one contract in relation to the supply of recycled water to a commercial customer (classified as other core services). This contract sets specific service standards to the recycled water plant and does not have implications beyond that asset to the remaining customer base or other recycled water customers.

Unitywater does not have, nor intends to have, formal service standards in relation to unregulated services, although laboratory services must comply with the standards required by the National Accreditation Test Association (NATA).

The QCA's guideline for templates states that the QCA has not predetermined service standards and that entities should provide information about the service standards that are approved by other agencies or otherwise required by councils. Accordingly, the scope of service standards considered in this section relates to:

- The Customer Service Standards (CSS) required under the *Water Supply (Safety and Reliability) Act*,
- Those expressed in Strategic Asset Management Plans (currently SAMPs and TMPs but soon to be the Netserv Plan which is currently being drafted); and
- The Customer Code issued by the QWC under the requirements of the South-East Queensland Water (Distribution & Retail Restructuring) Act 2009.

In accordance with Clause 115 of the Water Supply (Safety & Reliability) Act, Unitywater had responsibility to align and establish CSS across both regions by 1 July 2011. Unitywater has satisfied that requirement and published the aligned service standards (Customer Charter) on its website and provided it to customers in both regions. The Customer Charter was provided to the QCA as Appendix 2 of its 2011-12 price monitoring submission. A copy is available electronically from the following URL <http://unitywater.com/customer-charter>.

Levels of service as defined in the SEQ Water Strategy have been interpreted as out of scope as they are not controlled by Unitywater, but rather managed by the QWC through its central planning function.

There are also design standards which aim to generate asset performance outcomes, some of which relate to service aspects such as supply continuity. These standards were set through codes or policies under council planning schemes, and include the water and sewerage design manual for each former council. Subsequent amendments to the *SEQ Water Supply (Distribution & Retail Restructuring) Act 2009* require Unitywater and the other distributor-retailer businesses to collaborate on the preparation and implementation of a single SEQ Design and Construction Manual to be adopted before 1 July 2013. However, these are not considered service standards for the purpose of this information requirement.

Unitywater is also required to provide details of contractual service standards, or changes in contractual service standards, between the SEQ Water Grid Manager (WGM) and the distributor-retailer entity. These are addressed in the sections below.

## 5.2. PAST SERVICE STANDARDS AS APPROVED BY OTHER AGENCIES

Unitywater is required to provide details of service standards for each year from 1 July 2008 to 30 June 2010, as approved by other agencies. The following sections set out the service standards as applied by each of the two shareholding councils.

### 5.2.1. SERVICE STANDARDS FOR THE SUNSHINE COAST REGIONAL COUNCIL

#### **Service standards approved by other agencies**

Following the amalgamation of the former Noosa, Maroochy and Caloundra councils in March 2008, a single CSS was approved by the Sunshine Coast Regional Council in February 2009. Sunshine Coast Regional Council submitted those standards to DERM for approval by March 2009 and DERM approved the revised CSS in June 2009.

The details of these standards and how they evolved over time are set out in working papers provided with Unitywater's 2010-11 submission and have not been replicated here.

In addition, the Sunshine Coast Regional Council adopted the following as their CSS (these measures are not included in the SAMP):

- Standard water connection: within 10 working days;
- Standard sewerage connection: within 10 working days;
- Repair to water service: 5 working days; and
- Answer to enquiries: promptly.

### **SEQ Water Grid Manager contractual service standards**

The Grid Market Rules and associated contract between the Sunshine Coast Regional Council and the WGM set out the requirements for the supply of water into the network. Sunshine Coast Regional Council was a customer under that contract.

There are a variety of service arrangements set out in the Grid Market Rules and subordinate documents, including Operating Protocols. Importantly, the Grid Market Rules require various grid entities to share and consult on their SAMPs.

The Grid Market Rules are public documents and are available from the Queensland Water Commissions website.

#### **5.2.2. SERVICE STANDARDS FOR THE MORETON BAY REGIONAL COUNCIL**

##### **Service standards approved by other agencies**

Each of the former councils of Caboolture, Redcliffe and Pine Rivers had a different CSS in place at March 2008. Moreton Bay Regional Council did not adopt a unified CSS for 2008-09, but continued to maintain the CSS of the former councils on a district basis. These CSS' had previously been approved by DERM.

A single service standard across the region was adopted for 2009-10, and approved by DERM as part of its approval of the SAMP, on 7 April 2009.

The details of these standards and how they evolved over time are set out in working papers provided with Unitywater's 2010-11 submission and have not been replicated here.

##### **SEQ Water Grid Manager contractual service standards**

The same arrangements apply with the SEQ WGM as for Sunshine Coast Regional Council described above.

#### **5.3. SERVICE STANDARDS FOR 1 JULY 2010 – 1 JULY 2011**

##### **Service standards approved by other agencies**

The legislation for the water reform transitioned the SAMPs and related service standards and CSS from both councils to Unitywater as at 1 July 2010. Accordingly, these service standards applied from 1 July 2010 until changed in 1 July 2011. The CSS described above continued to apply during this period in relation to connections, enquiries and repairs.

In respect to complaint handling, the AS ISO 10002-2006 Customer satisfaction – Guidelines for complaints handling in organisations (ISO 10002:2004, MOD) continued to apply. The other aspects of service standards contained in the SAMP were set out in Appendix 3 of Unitywater's 2011-12 Price Monitoring Submission.

#### **5.4. CURRENT SERVICE STANDARDS**

Unitywater aligned CSS between both geographic regions and with the legislated Customer Code introduced by the QWC in June 2011. The code's minimum CSS include:

- The extent of unplanned interruptions (e.g. number per 1000 connections per 100 km of mains);

- Time for restoration of service after an unplanned interruption (e.g. % restored within x hours);
- Response/reaction time for incidents (e.g. X hours for urban, Y hours for rural); and
- Minimum flow or pressure at the connection to the customer's property (litres/minute at connection, m<sup>3</sup> per second, meter head or other appropriate basis).

To better understand the service performance of comparable entities, a comparative analysis of CSS was undertaken reviewing publications by QUU, City West Water (Melbourne) and the Water Services Association 2009-10 Urban National Performance Report. Based on this benchmarking and in response to the Customer Code issued by the QWC, a set of customer service (KPI) standards for Unitywater has been developed. These standards were provided as Appendix 2 of Unitywater's 2011-12 Price Monitoring Submission and are listed in Table 9 (overleaf):

**Table 9** Current Service Standards

Description	Commitment
<p>Quality, safety and reliability: We value our customers, our community and the environment</p>	<ul style="list-style-type: none"> <li>• Providing you with water that complies with the Australian Drinking Water Guidelines issued by the National Health and Medical Research Council</li> <li>• Supplying water at the required pressure (210 kPa) and flow rate (23 litres/minute) to meet your household needs</li> <li>• Protecting your health and the environment by operating and maintaining the infrastructure for the effective collection, transport and treatment of sewage</li> <li>• Connecting your property to our water and sewerage network within 15 working days of receiving your application and payment, where the relevant service is available</li> </ul>
<p>Quality, safety and reliability: We will do our best to minimise customer inconvenience during planned and unplanned service interruptions</p>	<ul style="list-style-type: none"> <li>• Providing you with at least 48 hours notice of any planned works that may disrupt your water supply</li> <li>• Communicating with customers, organisations or facilities with identified special needs, prior to planned water supply interruptions</li> <li>• In the event of unplanned water supply interruptions, striving to restore normal service levels within five hours, 90% of the time</li> <li>• Aiming to have fewer than 15 unplanned water supply interruptions per 1000 homes per year</li> <li>• Responding to urgent water and sewage incidents in less than one hour, in 90% of cases</li> <li>• Depending on the length and severity of disruption, providing more information about planned or unplanned service interruptions via our website and/or our Customer Service Call Centre</li> </ul>
<p>Respecting our customers: We value our customers and aim to always respond in a respectful, efficient and timely manner</p>	<ul style="list-style-type: none"> <li>• We commit to being: Available - We are on call 24 hours a day, seven days a week, 365 days a year, for faults and emergencies</li> <li>• We commit to being: Contactable - Our Customer Service Call Centre and customer service counters can assist with your general enquiries on Monday to Friday from 8.30am to 5pm (except public holidays) and you can also submit a question at any time through our website</li> <li>• We commit to being: Identifiable - Our Customer Service team members will provide you with their first name and supply a reference number for customer requests and our logo uniformed field staff will produce photo ID on request</li> <li>• We commit to being: Responsive - We will answer 80% of calls to our Customer Service Call Centre within 30 seconds and acknowledge written</li> </ul>

	<p>enquiries within 10 days</p> <ul style="list-style-type: none"> <li>• We commit to being: Respectful - We will treat your information with strict confidence, as per our Privacy Statement and the Information Privacy Act 2009</li> <li>• Managing your account: We issue accounts quarterly to our Moreton Bay customers and Sunshine Coast customers</li> <li>• Managing your account: To calculate your account we are required to read your water meter at least once a year, however we endeavour to read your meter every account cycle and inform you of the reading but if your water meter remains inaccessible within the required timeframe and you do not phone through your reading to us we will estimate your consumption for that account period</li> <li>• Managing your account: Your itemised account includes all the necessary information to help you understand your water supply and sewerage charges</li> <li>• Managing your account: We offer a range of options for paying accounts online, in person or by mail</li> <li>• Managing your account: Our payment terms are 30 days and it is important to settle your account on time because interest of 11% per annum, compounding daily, is charged on overdue amounts and if you are experiencing payment difficulties please contact us as early as possible to discuss suitable payment arrangements and our Financial Hardship Policy can be mailed on request, viewed at our customer service counters, or on our website <a href="http://www.unitywater.com">www.unitywater.com</a></li> <li>• Handling complaints: We manage complaints in accordance with ISO 10002-2006 Customer Satisfaction Guidelines for Complaints Handling in Organisations and please contact us first so we can work with you personally to address your concerns and if, following our investigations, the complaint is not resolved to your satisfaction we will escalate your complaint to our Complaint Management Team for review and following this review, if you remain unsatisfied with the outcome, you can then refer your complaint to the Energy and Water Ombudsman Queensland on 1800 662 837 or <a href="mailto:complaints@ewoq.com.au">complaints@ewoq.com.au</a></li> </ul>
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Note: Standards in bold are provided on the customer charter.

These CSS have been circulated to all customers and are available on the Unitywater website. Service standards will be incorporated into Unitywater's Netserv plan, which will replace the SAMP and other plans when finalised.

**SEQ Water Grid Manager Contract**

The SEQ Water Market Rules define the obligations of water grid participants, including Unitywater. Unitywater has been a customer of the WGM since 1 July 2010. The service standards detailed in the SEQ Water Grid Rules are general overarching requirements. Specific, detailed service standards are specified in the Operational Protocol, Grid Instructions, and Water Grid Performance Standards. To date, no material changes in service standards have occurred for the supply of water from the grid to Unitywater, although this is subject to any changes to the grid market rules.

**Other change triggers**

There is an on-going need to consult further with QUU and the distribution-retailer businesses resulting from the disbandment of Allconnex with regard to the development of the “SEQ Design & Construction Manual” to ensure that CSS’s are consistent and comparable with Unitywater’s.



## 6. DEMAND

This chapter discusses demand for Unitywater's water supply, sewage and trade waste collection, transport and treatment services. Supporting information is available on request.

Demand for Unitywater's services impacts programs of work, the Maximum Allowable Revenue (MAR) under the *Amended Ministers' Direction Notice* for 1 July 2011 to 30 June 2013, pursuant to s23A of the *Queensland Competition Authority Act 1997* and prices necessary to cover prudent and efficient operating and capital costs.

Unitywater has frozen most water and sewerage prices for 2012-13 (<http://www.unitywater.com/news.aspx?NewsID=235>). This is on top of the CPI price cap for 2011-12 prices under s92DW of the *South-East Queensland Water (Distribution and Retail Restructuring) and Other Legislation Amendment Act 2012*.

### 6.1 FORECASTS & ANALYSIS

A South East Queensland (SEQ) System Operating Plan (SOP) is required by the Department of Energy and Water Supply (DEWS) having taken over responsibility for the disbanded Queensland Water Commission (QWC) under Chapter 2A Part 5 Division 2 of the *Water Act 2000*. Schedule 5 of the latest SOP (i.e. Revision 4.1 released on 9 July 2012) requires all Distribution-Retailers (DRs) to provide the SEQ Water Grid Manager (WGM) with a water demand forecast (WDF) each year for 20 years. This WDF must align with Unitywater's *Water Netserv Plan*, be approved by the Board, and be provided to WGM and QWC no later than 28 February each year commencing 2012.

The CEO and Board approved WDF (of February 2012) is reproduced below in **Table 10**. The WDF is for longer term (LT) planning purposes such as WGM bulk water purchases and Unitywater capital expenditure forecasts. It is also the starting point for shorter term (ST) planning purposes such as MAR and pricing, which is reproduced further below in **Table 11**.

Unitywater uses ST demand forecasts for pricing, operating expenditure estimates and in ST prioritisation of capital expenditure, these forecasts can be expected to depart from LT trends. LT demand forecasts are used for capital planning purposes to achieve service standards and regulatory requirements over the life of the assets and take account of network risks such as ensuring the reliability, quality, customer growth and security of service supply. ST consumption patterns can change more rapidly than the ability to augment the water supply network; sewage and trade waste collection, transport and treatment within Unitywater's sewerage network.

LT WDF (in billed ML) projects an increase from calendar year (CY)2012 to CY2015 in Moreton Bay Regional Council (MBRC) of approximately 8.8% (consisting of around 9.1% residential and 7.5% non-residential) and in the Sunshine Coast Regional Council (SCRC) of approximately 10.5% (consisting of around 10.5% residential and 10.4% non-residential). 'Non-revenue water' (NRW, in unbilled ML) is expected to increase 5.5% and 7.3% respectively over this same period.

The ST WDF (in billed ML) projects an increase from financial year FY2012 to FY2015 in MBRC of approximately 23.1% (consisting of around 26.6% residential and 5.0% non-residential including Amcor) and in SCRC of approximately 17.7% (consisting of around 19.9% residential and 7.4% non-residential). NRW (in unbilled ML) is expected to increase 9.1% and 0.6% respectively over this same period.

**Table 10** Water Demand Forecast (WDF) for Longer Term (LT) Purposes

		CY2012	CY2013	CY2014	CY2015
<b>MBRC</b>	<i>Total Billed</i> (ML)	38,890	40,033	41,177	42,320
	Residential	32,107	33,080	34,053	35,025
	Non-residential	6,783	6,953	7,124	7,294
	<i>Total Unbilled</i> (ML)	3,773	3,844	3,913	3,980
	<i>Total Bulk</i> (ML)	<b>42,663</b>	<b>43,877</b>	<b>45,090</b>	<b>46,300</b>
<b>SCRC</b>	<i>Total Billed</i> (ML)	33,448	34,615	35,782	36,949
	Residential	25,765	26,665	27,566	28,466
	Non-residential	7,683	7,950	8,216	8,483
	<i>Total Unbilled</i> (ML)	3,310	3,392	3,472	3,551
	<i>Total Bulk</i> (ML)	<b>36,758</b>	<b>38,007</b>	<b>39,254</b>	<b>40,500</b>

**Table 11** Water Demand Forecast (WDF) for Shorter Term (ST) Purposes

		FY2012	FY2013	FY2014	FY2015
<b>MBRC</b>	<i>Total Billed</i> (ML)	25,513	27,312	29,278	31,402
	Residential	21,322	23,053	24,949	27,001
	Non-residential	2,992	3,061	3,130	3,202
	Amcor	1,199	1,199	1,199	1,199
	<i>Total Unbilled</i> (ML)	2,877	2,958	3,046	3,138
	<i>Total Bulk</i> (ML)	<b>28,390</b>	<b>30,270</b>	<b>32,324</b>	<b>34,540</b>
<b>SCRC</b>	<i>Total Billed</i> (ML)	25,049	26,865	28,850	29,487
	Residential	20,591	22,299	24,174	24,698
	Non-residential	4,459	4,566	4,676	4,788
	<i>Total Unbilled</i> (ML)	3,255	3,312	3,376	3,275
	<i>Total Bulk</i> (ML)	<b>28,304</b>	<b>30,177</b>	<b>32,226</b>	<b>32,762</b>

Sewage demand forecast (SDF) from Unitywater's *Netserv Plan: Growth Management Plan* (of July 2012) is reproduced below in **Table 12**. SDF is for LT planning purposes (e.g. 5 - 20 years) such as

Unitywater capex. It is also the starting point for ST planning purposes (e.g. 1 - 5 years) such as MAR and pricing, which is reproduced further below in **Table 12**.

The LT SDF (in equivalent persons or EPs) projects an increase from CY2012 to CY2015 in MBRC of approximately 8.4% (consisting of around 7.2% residential and 14.9% non-residential) and in SCRC of approximately 10.8% (consisting of around 10.9% residential and 10.4% non-residential). The ST SDF (in number of charges levied) projects an increase from FY2012 to FY2015 in MBRC of approximately 7.4% (consisting of around 7.4% residential and 7.4% non-residential) and in SCRC of approximately 7.1% (consisting of around 7.1% residential and 7.1% non-residential).

**Table 12** Sewerage Demand Forecast (SDF) for Longer Term (LT) Purposes

		CY2012	CY2013	CY2014	CY2015
<b>MBRC</b>	<i>EPs (numbers)</i>	<b>407,757</b>	<b>419,215</b>	<b>430,674</b>	<b>442,132</b>
	Residential	343,325	351,585	359,846	368,106
	Non-residential	64,432	67,630	70,828	74,026
<b>SCRC</b>	<i>EPs (numbers)</i>	<b>397,978</b>	<b>412,247</b>	<b>426,516</b>	<b>440,785</b>
	Residential	310,549	321,791	333,032	344,274
	Non-residential	87,429	90,456	93,483	96,510

**Table 13** Sewerage Demand Forecast (SDF) for Shorter Term (ST) Purposes

		FY2012	FY2013	FY2014	FY2015
<b>MBRC</b>	<i>Charges (numbers)</i>	<b>151,663</b>	<b>155,294</b>	<b>159,012</b>	<b>162,819</b>
	Residential	144,358	147,814	151,352	154,976
	Non-residential	7,305	7,480	7,660	7,843
<b>SCRC</b>	<i>Charges (numbers)</i>	<b>136,741</b>	<b>139,894</b>	<b>143,118</b>	<b>146,417</b>
	Residential	126,781	129,702	132,690	135,747
	Non-residential	9,960	10,192	10,428	10,670

## 6.2 APPROACHES & METHODS

The annual forecast total volume or quantity of water (TQ) is calculated for LT and ST WDF purposes using the same formula of total billed ( $TQ_B$ ) plus total unbilled ( $TQ_U$ ) water. Billed water is, in turn, simply population (N number of persons for residential, and EPs for non-residential) multiplied by litres per person per day (LPD).

$$TQ = TQ_B + TQ_U \text{ where } TQ_B = N \times LPD$$

TQ for ST WDF starts with the same population forecasts from the base year of 2012 (*albeit* converted from a calendar to financial year) as for LT WDF. From there the data sources and assumptions vary (sometimes significantly, as is the case for LPD). The LT WDF uses 'bottom up' N forecasts based on Participating Councils' models, which are then compared to the Office of Economic and Statistical Research's (OESR's) 'top down' forecasts for high, medium and low series N. The ST WDF starts with the LT WDF N forecast and then escalates this using OESR's medium series N forecast. LT WDF N approximately aligns with medium series in MBRC and low series in SCRC. The LT WDF then uses LPDs of 230 for both non-residential and low and medium density residential, and 200 for high density residential. The ST WDF uses LPDs based on SKM's accepted recommendations to the QCA: MBRC residential 152 - 181 and 103 non-residential; and SCRC residential 178 - 200 and 135 - 136 non-residential. The higher LT LPDs are based on the uncertainty of any future demand 'rebound' from the drought, water restrictions and other Queensland Government (QG) requirements for 230 LPD such as the original SEQ Water Supply Strategy and current Level of Service Objectives. LT unbilled water or NRW starts with 22 LPD in CY2012 and reduces 1% each year down to 18 LPD by CY2031, based on projections in the *System Leakage Management Plan* (of February 2012) prepared by Parsons Brinckerhoff and Unitywater's not-yet-approved *Netserv Plan: System Water Loss Minimisation Strategy* (of June 2012), and due to the implementation of leakage control measures.

The LT SDF is derived from the planning assumptions for MBRC and SCRC under the current versions of the relevant Planning Schemes. The planning assumptions are made in quantitative terms and address the various components for each form of development initiatives, such as: employment growth; future land use; lot or dwelling yield; population growth; timing of the anticipated development; and use of additional land for commercial and industrial uses. These planning assumptions are required for consistent planning of future infrastructure to service the priority infrastructure area with a Desired Standards of Service. The LT SDF is expressed in the industry standard demand units of EPs. One EP equates to the service demand from a single occupant of an average occupied detached house. The ST SDF no longer uses equivalent base charges (EBC) as its base, but number of charges. These are extracted from the Unitywater customer billing system for both residential and non-residential sewerage (as distinct from water). These are then escalated using a rate derived from OESR's medium N series.

Firstly, it is important to note that LT LPD for water supply and sewage services are derived from assumptions for residential ratios of EPs to equivalent tenements (ETs) ranging from 1.8 to 2.7, plus dozens of non-residential ratios of EP/ha for MBRC ranging from 0 to 292.5 and EP/GFA (gross floor area) for SCRC ranging from 0.1 to 3.6. Secondly, it is important to note that fire fighting pressure and flow requirements are a significant component of LT WDF, and peak wet weather flow requirements are a significant component of LT SDF. Lastly, it is important to note that the LT WDF (and to a lesser extent SDF) is consistent with the long lag and lead times associated with capex responding to and anticipating for demand, the latter sometimes requiring 'prudent and efficient' building of excess capacity due to timing.

### 6.3 CRITICISMS & SUGGESTIONS

Most of the recent criticisms and suggestions regarding WDF and SDF can be found in SKM's Final Report to the QCA on 28 October 2011 entitled *Review of Demand Projections for South East Queensland*.

The following SKM criticisms and suggestions have been largely addressed:

- customer numbers were only provided for one year (p74);
- SKM recommended EBC for water were noticeably less for residential and somewhat less for non-residential (p77); forecast EBC growth, based on connections, were comparable with OESR forecast dwellings growth (pp76&77); SKM's recommended EBC for sewerage were noticeably less for residential and somewhat less for non-residential (pp84-85);
- separate residential and non-residential average water consumption was not provided (p79);
- data on SCRC average residential water consumption was not available (p80);
- SCRC average non-residential water consumption was too volatile between years (p81);
- SKM's recommended water consumption levels were substantially greater (p83);
- NRW forecasts were not provided (p85);
- average residential water consumption forecasts (including the rationales and assumptions behind them) were not well documented (pp86&87).

The following SKM criticisms and suggestions (regarding last year) are only partly, or starting to be, addressed:

- customer numbers appeared too large given connections (p74);
- water consumption forecast in 2010 for 2010-2014 diverged too much from that forecast in 2011 for that period (p75);
- preliminary OESR population forecasts were used instead of final ones, with the former ending up being higher than the latter (p76);
- average water consumption needs to account for a post-drought rebound under changed structural circumstances (pp78-79); SCRC residential water consumption has structurally changed pre and post drought (pp79-80); SCRC average residential water consumption below 214 LPD could be explained by water use efficiency (p80); SCRC average residential water consumption should not continue to fall or maintain 165 LPD but rebound to 200 LPD (pp80-81);
- Unitywater also considers tourism particularly in SCRC contribute towards water supply and sewage collection, transport and treatment peaking factors.
- SKM's recommended approach to calculating residential water consumption used the OESR low population series (pp81-82);
- SKM's recommended approach to calculating non-residential water consumption used connections and OESR dwelling growth rate projections (p82);
- sewage volume forecasts were not provided as Unitywater does not charge on this basis, except for non-residential in Maroochydoore which this was considered by SKM to be

consistent with other jurisdictions (p83&84); SKM recommended different sewage volumes to Unitywater (p84);

- sewage discharge factors could be industry specific (p84);
- NRW was not unreasonable compared to Allconnex and QUU (p85);
- different shorter and longer term demand forecasts for different internal purposes (including the rationales and methodologies behind them) were not well documented (pp85-86);
- Participating Councils' longer term demand forecasts (eg Network Master Plan, Planning Schemes, etc) were not documented (p86);
- water peaking factors (including the rationales and methodologies behind them) were not well documented (pp86-87); sewerage peaking factors were not well documented (p88);
- non-residential and especially residential sewage volumes information was not provided (p87).

SKM noted a few recent papers on price elasticity of demand, mainly for water and mainly for Sydney ... including *Abrams et al* (2001), *Hoffman et al* (2006), *Grafton and Kompas* (2007), and *Grafton and Ward* (2008). Unitywater has taken note of these studies, as well as the need to better understand not only demand elasticity and curves but the broader demand function. Unitywater considers water demand, in aggregate, to be highly inelastic at the current price, however there is the potential for changes in customer behaviour in relation to discretionary water use.

#### 6.4 INITIATIVES & PLANS

There are a number of demand-related initiatives and plans that are addressing SKM's outstanding criticisms and suggestions. Some of these are highlighted below.

Both internal and external demand working groups have been established in 2012. The external working group involves Unitywater, Queensland Urban Utilities (QUU), Gold Coast City Council (GCCC), and the to-be merged (by 1 January 2013) SEQ bulk water entities (Seqwater, LinkWater and the SEQ Water Grid Manager). The internal working group is mainly focussed on addressing SKM's outstanding criticisms and suggestions. The external working group is mainly focussed on finding common ground on demand forecasting methodologies and predictions (and possibly even shared work, technology and processes).

Business Plan and Methodology Proposal documents for the Establishment and Ongoing Maintenance of Unitywater's Demand/Load Models and Dependent Planning were produced (in June 2011) for implementation during 2012-13. These will be inputs into revising Unitywater's Water Supply and Sewerage Network Plans and the Capital Works Program. These will start to be revised once Participating Councils' new Planning Schemes and associated planning assumptions are sufficiently advanced. These new Models will involve the determination of a baseline of existing demand; demand likely to occur due to development approvals having been granted; and then forecasting the future demand based on the planning assumptions received by the Councils. Once those new Models are established, they will need to be kept up to date by tracking development approvals and demand uptake on a continuous basis. Once those new planning assumptions have been provided to Unitywater, it is intended that a new region-wide demand model be developed, which will allow a standardisation of approach and consistent application of assumptions for treatment services and distribution network planning.

The Unbilled Water Project (UWP) has been scoped to quantify and classify the NRW component of the water balance. NRW is the gap between the bulk water purchased and that billed to customers. This is a challenge for all water businesses and has multiple sources such as: fire fighting; flushing and cleaning; leaks; unmetered (e.g. some council) facilities; and theft. UWP will allow Unitywater to benchmark its proportion of NRW against other water businesses and to identify self-funding initiatives (i.e. by either a reduction in bulk water costs or an increase in revenue collected) to reduce the proportion of NRW. UWP is in the first phase, which includes: an initial calculation of the volume of NRW; an appraisal of existing data and systems to support future calculations; and a business case for the development and implementation of a water loss calculation tool and process improvements. UWP complements Unitywater's not-yet-approved *Netserv Plan: Growth Management Plan* (of July 2012) and *Netserv Plan: System Water Loss Minimisation Strategy* (of June 2012).

Unitywater welcomes and looks forward to being an active participant in the Research area of the QCA's foreshadowed workshop on water supply, sewage and developer contribution demand forecasting. It is hoped that the QCA will accompany this with an industry Demand Forecasting Guideline and possibly further guidelines on other MAR and price related topics like cost attribution and allocation.



## 7. REGULATORY ASSET BASE (RAB)

This section describes Unitywater's RAB calculation; approval by the former Minister for Energy and Water Utilities; and the process to roll forward the RAB to 30 June 2015.

### 7.1. GENERAL APPROACH

Unitywater applied a three stage approach to calculate the RAB value used for setting 2012-13 prices and the preparation of this submission. The three stages included:

1. Calculating the opening RAB at 1 July 2008 that reconciled with the Minister's value;
2. Rolling forward the opening RAB value to 1 July 2010 in accordance with the process specified by the:
  - (i) Minister in the Participation Agreement, and
  - (ii) QCA in its publication 'Information Requirements for 2011-12'; and
3. Rolling-forward the RAB to 30 June 2015 in accordance with the QCA specified process.

The first and second stages calculated the 'Participation RAB' (excluding capital work in progress) that provides each councils participation proportion in Unitywater. In contrast the 'Regulatory RAB' includes capital work in progress and establishment costs. The 'Regulatory RAB' is used for QCA price monitoring purposes.

### 7.2. INITIAL RAB 1 JULY 2008

Initial RAB values, as at 1 July 2008, were reconciled to the Minister's advised values in accordance with the recommended approach by the QCA. Participating Council's regulated asset base values, were assigned to the water business asset base as at 30 June 2008. Table 14 RAB Values as advised by Moreton Bay and Sunshine Coast Regional Councils.

**Table 14** RAB Values as at 1 July 2008 as advised by the Minister

Region	RAB 1 July 2008	Region	RAB 1 July 2008
MBRC Caboolture	\$475.5M	SCRC Caloundra	\$303.2 M
MBRC Pine Rivers	\$532.4M	SCRC Maroochy	\$514.9 M
MBRC Redcliffe	\$102.2M	SCRC Noosa	\$101.8 M
Sub-total MBRC	<b>\$1,110.0M</b>	Sub-total SCRC	<b>\$919.9 M</b>
Combined region total			<b>\$2,029.9 M</b>

Assignment of the Minister's asset value involved identification of councils' water business assets as at 30 June 2008 and adjusting to reconcile with the Minister's written down value.

Unitywater undertook a two part verification process of detailed asset listings supplied by Participating Councils. At the macro level, asset totals were reconciled to council financial statements. At the micro level, the asset listings were reconciled to transfer notices.

The Sunshine Coast Regional Council, due to the timing of council amalgamations, did not produce financial statements as at 30 June 2008, but instead produced statements as at 15 March 2008. To determine the detailed asset listing and written down values at 30 June 2008 a roll-forward as per the QCA's process was carried out from 15 March to 30 June 2008.

In the case of Moreton Bay Regional Council, changes to the asset records as a result of council amalgamations resulted in them not being able to provide a detailed asset listing with values as at 30 June 2008. Instead MBRC provided a detailed listing as at 30 June 2010. This listing was separated into three separate databases. The first, used in setting the initial RAB, was for those assets acquired before 1 July 2008. The other two, used in the RAB roll-forward to 1 July 2010, were for those assets acquired during 2008-09 and 2009-10 respectively.

Consideration was given to accessing paper records from archives to attempt to rebuild an asset listing as at 30 June 2008, but it was deemed too expensive and there were concerns regarding its likelihood of success. As the resulting values were only to be used for alignment purposes, the decision was taken to use the 2010 values to set the initial RAB. The only additional work required by this process was to identify those assets that had been disposed of by Moreton Bay during the two years from 2008 to 2010.

For the 2009-10 financial year disposal records were obtained from Participating Councils. For 2008-09 financial year, disposal values listed in the financial statements were used. These disposal values were included in the 1 July 2008 value to calculate the necessary proportion of the Minister's valuation. They were then removed as part of the roll-forward process in stage 2. Table 15 (below) displays the initial RAB value as at 1 July 2008.

**Table 15** Initial RAB 1 July 2008

Opening asset base for Unitywater	Numeration	Geographic Area 1 Moreton Bay	Geographic Area 2 Sunshine Coast	Total
<b>WRITTEN DOWN VALUE as at 1 July 2008</b>				
Total WDV (accounting values) as at 1 July 2008	(\$M)			2,532.7
<b>REGULATORY ASSET BASE VALUES as at 1 July 2008</b>				
<b>Water:</b>				
Drinking water	(\$M)	496.5	345.0	841.5
Other core water services	(\$M)	13.2	24.1	37.3
<b>Wastewater:</b>				
Wastewater via sewer	(\$M)	584.7	534.7	1,119.4
Trade waste	(\$M)	15.2	15.9	31.1
Other core wastewater services	(\$M)	0.0	0.0	0.0
<b>Non-regulated:</b>				
Aggregate non-regulated services	(\$M)	0.4	0.2	0.6
<b>Total RAB Value as at 1 July 2008</b>	<b>(\$M)</b>	<b>1,110.0</b>	<b>919.9</b>	<b>2,029.9</b>

Files containing individual asset details allocated to services and asset classes are provided as part of the supporting work papers submitted in previous price monitoring submissions.

### 7.3. RAB ROLL FORWARD TO 1 JULY 2010

In order to calculate the RAB value as at 1 July 2010, the above RAB values needed to be adjusted for indexation, depreciation, disposals and additions for the period from 1 July 2008 to 1 July 2010:

- The indexation rates used were the Brisbane CPI;
- Regulatory depreciation for those assets in the initial RAB was calculated by using each asset's assigned value and the remaining useful life as shown in the council records;
- Additions were added at the values as shown in the council accounts and depreciated using the useful life assigned by the council;
- Disposals were identified from council records and removed at their written down value;

In addition, Unitywater's establishment costs were included to calculate the total RAB as at 1 July 2010. The establishment costs have been allocated on a weighted allocation basis using the relative proportions of the RAB made up by the Moreton Bay and Sunshine Coast Regional Councils as at 30 June 2010, being 55.6% and 44.4% respectively. Table 16 illustrates the results of the roll-forward process to 1 July 2010.

**Table 16** Participation and Regulatory RAB Values 1 July 2010 (\$M)

Description	Adjust ±	MBRC	SCRC	Total
RAB 1 July 2008		\$1,110.0M	\$919.9M	\$2,029.9M
Add Net Roll Forward	+	\$225.2M	\$148.5M	\$373.7M
RAB 30 June 2010	=	\$1335.2M	\$1068.4M	\$2403.6M
Add Capital Works in Progress	+	\$184.0M	\$21.1M	\$205.1M
Ministers Value Participation RAB 1 July 2010	=	\$1,519.2M	\$1,089.5M	\$2,608.7M
<b>Participation Rights %</b>	<b>%</b>	<b>58.24%</b>	<b>41.76%</b>	<b>100.0%</b>
Less Capital Works in Progress	-	\$(184.0)M	\$(21.1)M	\$(205.1)M
Add Establishment Costs	+	\$7.3M	\$5.8M	\$13.1M
<b>Regulatory RAB for QCA price monitoring</b>	<b>=</b>	<b>\$1,342.5M</b>	<b>\$1,074.2M</b>	<b>\$2,416.7M</b>

The process of rolling forward Unitywater's RAB to 1 July 2010 for participation rights purposes was reviewed by the QWC and approved by the Minister for Energy and Water Utilities. The same detailed asset files which supported the roll-forward to 1 July 2010 for participation rights determination have been used in the RAB roll-forward for price-setting purposes. A copy of Unitywater's submission to the Minister and the resultant letter of approval were included in supporting documents accompanying last year's 2011-12 price monitoring submission.

#### 7.4. QCA AMENDMENT TO RAB AS AT 1 JULY 2010

The QCA advised Unitywater via email on 4 August 2010 advising of adjustment to the interim opening RAB value as at 30 June 2010 in accordance with the 2010-11 Final Report and the RAB roll-forward methodology. Table 17 was provided by the QCA to reflect the adjustment. The net result is a decrease in the opening RAB value at 1 July 2010 of \$0.7M.

**Table 17** Amended RAB as advised by QCA 30 June 2010 (\$M)

Service	Water	Wastewater	Combined Total
Original Regulatory RAB by service	\$990.6M	\$1,466.1M	\$2,456.7M
Revised \$M	\$989.9M	\$1,465.2M	\$2,455.1M
Variance \$M	\$(0.7)M	\$(0.9)M	\$(1.6)M
Variance (%)	(0.07)%	(0.06)%	(0.06)%

#### 7.5. RAB ROLL FORWARD 30 JUNE 2015

In order to roll-forward the RAB each year to 30 June 2015, the 1 July 2010 opening RAB is adjusted for indexation, depreciation, disposals and additions for each financial year to 30 June 2015. Unitywater made two key decisions in order to roll-forward the RAB value to 2015.

1. For the purposes of this information return, the revenue offset method for calculation of the RAB has been applied for the periods 2010-11 to 2013-14 inclusive.
2. Unitywater has adopted a disaggregated approach to valuing the RAB for regulatory purposes where possible. This means that individual asset details have been maintained and directly attributed to regulatory services and asset classes. This data is taken from the Unitywater fixed assets register.

#### 7.6. INDEXATION 30 JUNE 2015

Indexation was applied globally to commissioned assets, developer provided assets and asset disposals all assuming to occur halfway through the year. Indexation of the asset base is discussed in more detail in Section 11 of this submission.

#### 7.7. CAPITAL EXPENDITURE ADDITIONS TO 30 JUNE 2015

Capital expenditure additions are made up of growth, compliance and improvement capital projects in addition to asset renewal projects. Capital projects are added to the RAB in two ways:

1. Capital projects are added to the RAB on an as-commissioned basis. The capital expenditure source file<sup>28</sup> contains commissioning dates for each project. Once a capital project reaches its commissioning date, it is capitalised and added to the RAB at the mid-point of the commissioning year. Any expenditure that occurs after the commissioning date is capitalised in the same year it is spent; and
2. Renewal projects are capitalised each year regardless of commissioning date.

<sup>28</sup> UnitywaterCapexFinal v10.xlsb

Capital projects and renewals program is discussed in more detail in Section 8 of this submission.

## 7.8. CAPITAL WORK IN PROGRESS ADDITIONS TO 30 JUNE 2015

Capital work in progress (WIP) transferred to Unitywater from the councils as at 1 July 2010 was added to the RAB in one of two ways:

1. The WIP for MBRC and SCRC as at 30 June 2010 was \$184.0M and \$21.1M respectively. Most (\$150.7M) related to capital projects not yet finished and was included as an opening balance for capital projects.
2. The balance (\$54.4M) related to work that was actually complete but had not yet been capitalised by the councils. These were treated as additions in 2010-11.

Unitywater is using the 'Revenue Offset' method, additions also include the receipt of forecast donated or contributed assets. The forecast of donated assets is discussed in more detail in Chapter 10 of this submission. All additions are capitalised on a mid-year basis.

Renewals are capitalised on a yearly basis so do not incur any interest during construction. Ongoing capital projects incur interest during construction if they run for a period of greater than 12 months. This is calculated as the difference between the commencement date and the commissioning date for each respective project. Once a project has been identified as eligible to incur interest during construction it is calculated using the following methodology:

- For a non-commissioning year - new capital expenditure incurs half a year's interest with any carry forward capital expenditure for the project incurring a full year's interest. This reflects the fact that new capital expenditure is assumed to be incurred on a mid-year basis; and
- For a commissioning year - new capital expenditure will incur no interest and the carry forward balance will incur a half year's interest. This reflects the fact that projects are also commissioned on a mid-year basis.

The interest rate used in the above calculations is the WACC of 9.35% as determined by the QCA.

The opening asset register as at 1 July 2010 contained assets from two councils who themselves had recently been formed by amalgamating six former councils. This led to some inconsistencies in asset lives for the same type of assets. Unitywater engaged Cardno to establish consistent asset lives. The opening asset register has been updated for these new lives and they have also been used for any additions in the roll-forward from 2010 to 2014. Useful lives and asset values are discussed in more detail in Section 10 of this submission.

Table 18 (below) summarises the estimated RAB roll-forward for this period.

**Table 18** Estimated RAB roll-forward for this period (\$M)

Description	Adjust ±	Moreton Bay Regional Council	Sunshine Coast Regional Council	Combined Total
Initial RAB 1 July 2010		\$1,342.5M	\$1,074.2M	\$2,416.7M
Add Capital Expenditure	+	\$609.5M	\$433.0M	\$1,042.5M
Add Interest During Construction	+	\$25.5M	\$4.5M	\$30.0M
Add Indexation	+	\$210.8M	\$157.8M	\$368.6M
Less Disposals	-	\$1.3M	\$0.3M	\$1.6M
Less Regulated Depreciation	-	\$256.4M	\$189.2M	\$445.6M
RAB rolled forward to 30 June 2015	=	\$1,930.6M	\$1,480.0M	\$3,410.6M

Negligible asset disposals are expected and have a nil disposal value. All aspects of the RAB roll-forward process have been classified in accordance with the QCA activity, service and asset category classifications. Further details of the RAB roll-forward can be found in templates 5.5.1 to 5.5.1\_SD04 and further supporting documentation.

## 8. CAPITAL EXPENDITURE

Unitywater's capital expenditure projects and programs are required to provide safe, secure and reliable drinking water supply, as well as trade waste and sewage collection, transport, treatment of waste as well as sale of resulting recycled water or disposal of wastewater in Moreton Bay and Sunshine Coast Regional Council areas.

Unitywater plans capital expenditure requirements to meet:

- Growth in customer volume demanded and network connections;
- Customer service standards and obligations to provide safe, secure and reliable drinking water supply; trade waste and sewage collection, transport and treatment services;
- Provide services in a manner that balances network security, environmental, compliance, sustainability and customer and stakeholders outcomes;
- Asset renewal: replacement of deteriorated (condition or performance) assets; and
- Environmental compliance: deliver reliable sewage and trade waste treatment so that discharges to the environment comply with STP environmental licence conditions.

Unitywater's expenditure approval processes and efforts to identify least cost and innovative solutions have already reduced capital expenditure programs compared to forecasts based on council budgets in 2010-11, that were prepared prior to Unitywater's formation.

Unitywater's capital expenditure process includes rigorous assessment by a dedicated committee of the Board, the Capital Works Committee. The Capital Works Committee meets monthly and was established to monitor and review capital expenditure planning, program delivery, and ensure alignment with strategic objectives and management of network risk.

Unitywater established a multi-divisional Asset Steering Committee to review and endorse capital and operating projects and programs for submission to the Capital Works Committee.

The Asset Steering Committee was responsible for development of Unitywater's Capital Works Justification Process, to satisfy the linkage between capital and operating expenditure programs and Unitywater's strategic objectives, and to meet justification requirements of the economic regulator.

The 'Capital Works Master Justification Process' documents: the process; documents and decision points, options assessment, prioritisation and sequencing and delivery of capital projects and programs. The process covers the identification, development, prioritisation and approval phase of capital work projects and programs.

More recently the Asset Steering Committee has been pivotal in progression of the Netserv Plan Part A and B that captures in a coordinated way Unitywater's activities, strategies and plans.

### 8.1. SUMMARY

The QCA's guidance notes, require capital expenditure to be rolled into the Regulatory Asset Base (RAB), in the commissioning year (i.e. when the asset contributes to productive capacity).

Calculation of the opening RAB value has been discussed and provided in previous submissions to the QCA.

Unitywater's capital expenditure by council region and service for the period 2010-11 to 2014-15 is included in Table 19 (below) on an 'as capitalised' basis.

**Table 19** Capital expenditure by region and service (including developer provided assets)

As Capitalised by Region (\$M)	Service	FY2011	FY2012	FY2013	FY2014	FY2015
MBRC	Water	40.6	34.0	26.5	16.3	15.4
	Wastewater	87.5	122.3	201.8	42.3	28.1
	Non-regulated	0.3	0.5	0.4	0.2	0.3
	<b>Total Capitalised</b>	<b>128.4</b>	<b>156.7</b>	<b>228.8</b>	<b>58.7</b>	<b>43.8</b>
SCRC	Water	25.8	30.7	42.0	34.1	14.0
	Wastewater	27.1	47.4	81.0	158.3	27.1
	Non-regulated	0.1	0.2	0.1	0.1	0.1
	<b>Total Capitalised</b>	<b>53.0</b>	<b>78.3</b>	<b>123.2</b>	<b>192.5</b>	<b>41.2</b>
Unitywater	Water	66.5	64.7	68.5	50.4	29.3
	Wastewater	114.7	169.7	282.9	200.6	55.3
	Non-regulated	0.3	0.6	0.6	0.3	0.4
	<b>Total Capitalised</b>	<b>181.4</b>	<b>235.0</b>	<b>352.0</b>	<b>251.2</b>	<b>85.0</b>

Unitywater's capital expenditure projects are mapped to QCA specified price monitoring cost drivers of growth, compliance renewal and service improvement.

Unitywater maps projects on a one project one driver basis, we are considering development of multiple driver mapping per project as suggested by the QCA. Unitywater has discussed multiple driver mapping with the other distributor-retailers. Apportionment methods are not straightforward and require application of experienced engineering opinion, the test is being able to obtain reliably repeatable outcomes from the process.

#### 8.1.1. QCA INFORMATION REQUIREMENTS FOR CAPITAL EXPENDITURE

The QCA's Information Requirements for 2012-13<sup>29</sup> (clause 5.6) detail the broad nature of prudence and efficiency tests against which capital expenditure programs are compared.

The explanatory notes also contain a requirement to explain variances in capital expenditure from previous estimates provided to the QCA. Unitywater submits the following as high level explanations of variances in previously advised capital expenditure forecasts:

<sup>29</sup> SEQ Interim Price Monitoring Information Requirement for 2011-12 June 2011 page 11-13

**Table 20** Explanations of variance to previously advised capital expenditure forecasts

Item	Impact	Time/Value
Capital expenditure projects and programs variations	Numerous capital projects previously included in Unitywater's budget were identified, modified, cancelled or postponed due to revised hydraulic modelling based on more recent growth projections.	Nett effect is a \$8.4M reduction when comparing the previous to the current 2012-13 forecasts.
Refinement of accounting policies and budget processes	Unitywater continues to progress toward more refined and applicable capital planning and accounting policies and budgeting practices	\$ Approximately \$21.0M corporate costs to be capitalised. <sup>30</sup>

## 8.2. FACTORS AFFECTING CAPITAL EXPENDITURE PROGRAMS

Factors affecting the capital expenditure forecasts include:

- **Condition and performance of assets in service** - This directly influences the level and timing of renewal programs.
- **Spare capacity** - The level of spare capacity influences the impact of growth requirements on the capital works program. In the last few years the Moreton Bay region reached the point where the growth required significant capital expenditure. The Sunshine Coast region is now entering this phase.
- **Population and water consumption** - Capital expenditure forecasts reflect the growth in customer numbers and connections.
- **Compliance** - capital augmentations to meet licence conditions.
- **Customer service standards** - from a capital expenditure perspective, the most important factors driving investment are the environmental impact of wastewater and the volume of sewage being treated due to customer numbers and economic activity or commercial trade waste volume (toxicity factor and volume).

Water supply; tradewaste and sewage collection transport and treatment including collection and treatment of trade waste and sewage constitutes Unitywater's core regulated services. Providing these services is asset and operating expenditure intensive requiring specialised skill sets that are often not readily obtainable from other sectors.

<sup>30</sup> Unitywater has progressed capitalisation of corporate costs but these have not yet been built into these forecasts.

### 8.3. HISTORICAL COUNCIL CAPITAL EXPENDITURE BY REGION TO 2010

Commissioned capital expenditure was added to the RAB for the Sunshine Coast and Moreton Bay regions and was verified as part of the RAB roll forward process, to identify:

- Participation Agreement proportional interests of participant councils; and
- To establish an opening RAB for regulatory purposes.

Adjustments were cross checked to transfer notices and have been accepted by the QWC and approved by the Minister in his letter dated 7 June 2011<sup>31</sup>. This process and the treatment of work in progress are outlined in more detail in Section 7.

### 8.4. FORECAST CAPITAL EXPENDITURE (2012-13 TO 2014-15)

Unitywater developed the capital expenditure program for 2012-13 to 2014-15 with reference to the need for expenditure to meet growth in customer numbers; maintain reliable and secure supply; compliance; asset renewal and replacement; and expected future demand.

Unitywater categorised capital expenditure according to the drivers of growth, renewals, improvements and compliance as required by the QCA.

Unitywater's capital program was developed following detailed consideration of its capacity to deliver using internal resources or contractors and appropriate scheduling and sequencing to aid in efficient delivery.

Consistent with the mid-year commissioning assumption discussed in Section 7, all forecast capital expenditure and donated assets have been included in the RAB at the midpoint of the assets commissioning year. Capital expenditure comprises of both ongoing capital projects and renewal projects, each project category are added to the RAB using the following method:

- Capital projects (projects that extend over one year prior to commissioning) are added to the RAB on an as commissioned basis. The capital expenditure source file<sup>32</sup> contains commissioning dates for each project. Once an ongoing capital project reaches its commissioning date it is capitalised and added to the RAB in December of that year; and
- Renewal projects (projects which require capital expenditure on a yearly basis) are capitalised each year regardless of commissioning date.

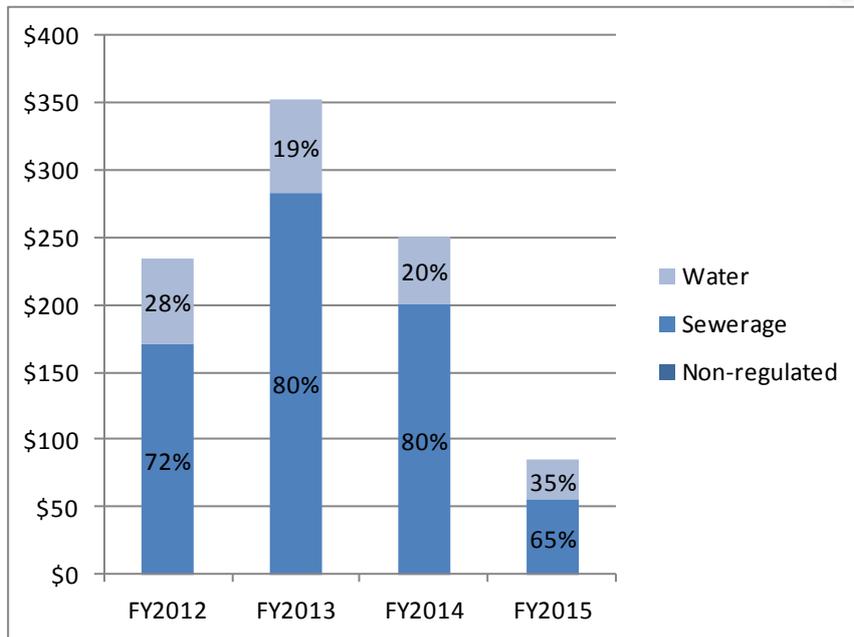
Total commissioned capital expenditure is approximately even between the Moreton Bay and Sunshine Coast region over the period 2012-13 to 2014-15 with 48.3% and 51.7% occurring in the Moreton Bay and Sunshine Coast regions respectively.

Across both regions, sewage services account for a larger proportion of capital expenditure than water services. This is illustrated in

**Figure 1** (overleaf) with 34.8% of total expenditure for the period relating to the provision of sewage treatment and trade waste treatment services.

<sup>31</sup> Hon Stephen Robertson MP RAB value reference MO/11/772;CTS 04525/11; ME/11/01/159 dated 7 June 2011

<sup>32</sup> UnitywaterCapexFinal v10.xlsb

**Figure 1** Total capital program by service (2012-13 – 2014-15)

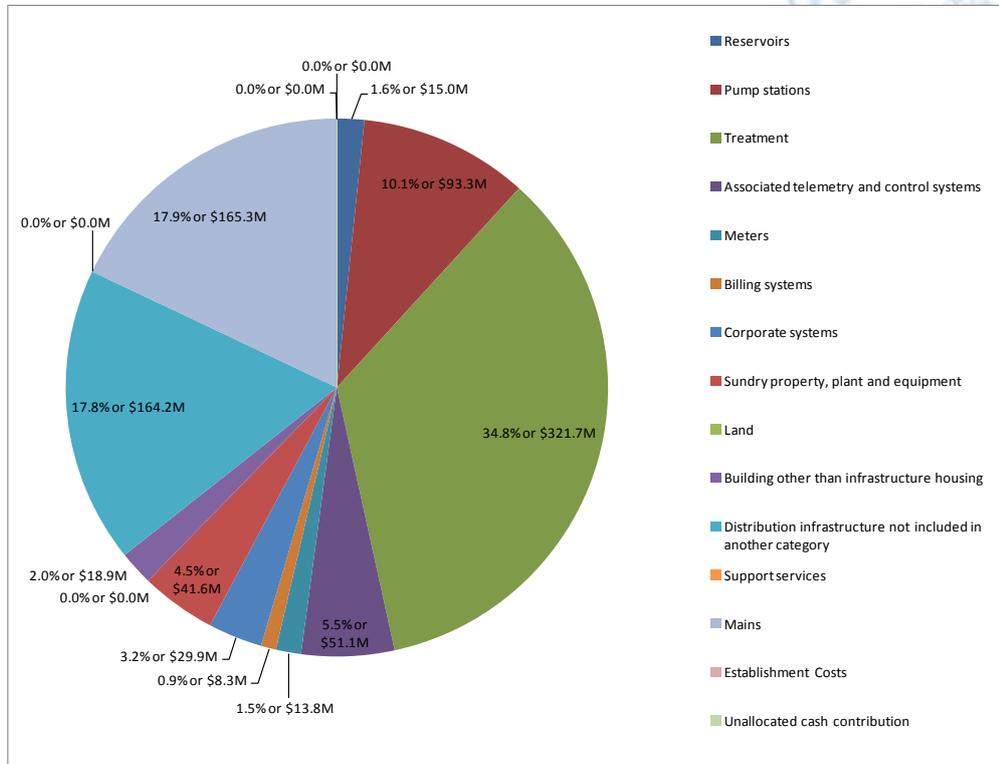
The significant capital expenditure for sewage services is a result of the following factors:

- Major upgrades of some sewage treatment plants that are scheduled to occur over the next few years;
- In general STP upgrades require reissuance of licence conditions on the entire load, not just the incremental new load. As such reconfiguration of STP design and functionality to meet current licence conditions for all loads is a considerable driver of capital expenditure; and
- Deferral of investment in water distribution infrastructure due to falling levels of both residential and business water consumption over the previous five years, with much of this attributable to water restrictions and government initiatives regarding demand.

Treatment, mains, distribution and pump stations are the primary asset classes requiring capital expenditure for the period 2012-13 to 2014-15 with 34.8%, 17.9%, 17.8% and 10.1% respectively.

**Figure 2** (below) which illustrates total capital expenditure by asset class for the period 2010-11 to 2013-14.

**Figure 2** Total capital expenditure by asset class (2010-11 – 2013-14)



## 8.5. CAPITAL PROGRAM PLANNING – DRIVERS OF EXPENDITURE

Table 21 (below) shows Unitywater's capitalised expenditure (including developer provided assets), by region and cost driver.

**Table 21** Assets capitalised by region and cost driver (including developer provided assets)

Region	Cost Driver	\$M	\$M	\$M	\$M	\$M
		FY2011	FY2012	FY2013	FY2014	FY2015
<b>MBRC</b>	New assets	90.9	108.0	171.1	2.6	24.9
	Renewal	6.7	19.3	17.8	14.8	14.1
	Improvements	4.9	10.1	15.6	22.0	4.3
	Compliance	0.0	4.4	6.6	0.8	0.5
	<b>Total capital expenditure</b>	<b>102.5</b>	<b>141.9</b>	<b>211.1</b>	<b>40.3</b>	<b>43.8</b>
	Developer Provided	25.9	14.9	17.7	18.4	19.0
	<b>Total Capital Program</b>	<b>128.4</b>	<b>156.7</b>	<b>228.8</b>	<b>58.7</b>	<b>62.7</b>

<b>SCRC</b>	New assets	8.7	30.8	66.0	118.2	26.5
	Renewal	6.9	20.5	17.7	14.6	11.3
	Improvements	4.6	9.0	15.8	38.5	3.3
	Compliance	3.5	1.2	3.8	0.7	0.1
	<b>Total capital expenditure</b>	<b>23.8</b>	<b>61.6</b>	<b>103.3</b>	<b>171.9</b>	<b>41.2</b>
	Developer Provided	29.2	16.7	19.9	20.7	21.3
	<b>Total Capital Program</b>	<b>53.0</b>	<b>78.3</b>	<b>123.2</b>	<b>192.5</b>	<b>62.6</b>
<b>Unitywater</b>	New assets	99.6	138.8	237.1	120.8	51.3
	Renewal	13.6	39.8	35.4	29.4	25.5
	Improvements	9.6	19.1	31.4	60.5	7.6
	Compliance	3.5	5.6	10.4	1.5	0.6
	<b>Total capital expenditure</b>	<b>126.3</b>	<b>203.4</b>	<b>314.4</b>	<b>212.2</b>	<b>85.0</b>
	Developer Provided	55.1	31.6	37.6	39.0	40.3
	<b>Total Capital Program</b>	<b>181.4</b>	<b>235.0</b>	<b>352.0</b>	<b>251.2</b>	<b>125.3</b>

As indicated above the cost drivers of capital expenditure in the capital planning process for Unitywater are growth 66.9%, renewals 14.8%, compliance 2.0%, and service improvements 16.3%.

**Table 21** suggests significant expenditure arising from growth over the period (new assets) with minimal improvement capital expenditure forecast over the period, on the basis that existing service levels are assumed to be maintained over the period.

#### 8.5.1. GROWTH

Growth related capital projects are those that primarily augment water and sewerage services to cater for increasing population or industry. The expected levels of demand and the process for forecasting this are covered in more detail in Section 6. The essential element of the process chain that ultimately defines growth-related capital expenditure is set out schematically in

**Diagram 12** (below).

**Diagram 12** Planning process*Link 1*

Demand forecasts established in accordance with demand forecast methods provide the load inputs to water and sewerage system network models. Demand is calculated for the current load and generally in five year increments for at least 15 years. Ultimate loads under the fully developed planning scheme are also determined.

*Link 2*

These demand projections are used as inputs to water and sewerage network models. These computer models of the reticulation networks are run for existing and future demand to identify where and when system performance fails to meet the designated standards of service.

*Link 3*

Network modelling is used to identify solutions to system deficiencies, when such solutions need to be implemented, and what they might cost.

*Link 4*

Further investigations into the options available are generally required before the proposed augmentation can be included in the capital program. These planning investigations typically involve:

- Review of network modelling to confirm system shortfall;
- Where possible, validation from field/SCADA data;
- Developing and assessing a range of alternative options;
- Concept design to identify capital costs;
- Route selection and environmental approvals;
- Application of whole-of-life cycle costing, and
- Recommendation of the preferred solution for approval.

*Link 5*

Capital works identified in the coming financial year also undergo a “prioritisation” process to ensure funding is allocated in an appropriately efficient manner. The current prioritisation process is discussed further in this section.

### 8.5.2. RENEWALS

The planning process for asset renewals varies between different asset classes. In broad terms the process chain for determining renewal driven capital works is as follows:

**Diagram 13** Capital Expenditure Process for Renewals



Previously both Moreton Bay and Sunshine Coast Regional Councils maintained separate GIS asset databases for all water and sewerage assets. Considerable work has been undertaken to consolidate both regions’ databases by a GIS consolidation project in 2011-12. Unitywater has also recently commissioned phase 1 of its asset management system to centralise information from two previous systems. As the systems gain operational data they will increasingly influence the renewals program.

Condition assessment is performed on assets, although this varies depending on the asset type and location. In brief the current approach is set out below:

1. For smaller passive non-critical water and sewer pipe work, assets are essentially run-to-failure with pipe replacements implemented as and when required, but prior to breaching customer service standards. Replacements are identified by field and planning staff;
2. For larger critical water pipe assets, scheduled condition assessments are performed to establish the assets’ remaining life. In some locations, these condition assessments are being undertaken as part of a broader systematic network-wide approach. However, in most instances, the assessments are generally reactive and occur as a result of operational concerns or in response to recent failure history; and
3. In relation to larger critical sewer pipe assets, condition assessments via CCTV inspections are performed frequently. Work is being done to put in place a process that allows condition assessments to be conducted in a systematic manner. This will allow asset lives to be adjusted within the current asset register.

### 8.5.3. SERVICE IMPROVEMENTS PERFORMANCE

Improvements relate to expenditure associated with improving service levels or reliability to meet customer preference.

Unitywater is working to existing service levels and its capital expenditure program has been developed accordingly. Hence there are minimal improvements forecast for the period. Unitywater has standardised the customer service standards as outlined in Section 5. This primarily achieved harmonisation between the regions and with the existing standards recently issued by QWC, as opposed to material improvements in service standards.

#### 8.5.4. BUSINESS EFFICIENCY IMPROVEMENTS

Business efficiency improvements aim to improve support of service delivery through more efficient and effective delivery of support functions. As part of the process of bringing together two separate council businesses, Unitywater identified a number of improvement opportunities with the potential to have a material impact on support costs. These improvements will involve both capital investment and operating expenditure. The initiatives relate to both system and non system capital expenditure, such as pump station rationalisation, and the property strategy.

#### 8.5.5. COMPLIANCE

Compliance relates to expenditure to meet legislative standards, water quality or STP licence conditions. Unitywater has interpreted this to also include expenditure required to meet pre-existing service levels (rather than improved service levels).

**Diagram 14** Planning Process for compliance projects



Regulatory and legislative issues that drive compliance typically include;

1. Workplace Health and Safety Act;
2. Environmental Protection Act (Including EPP Water, Environmental Authorities, etc);
3. Water Supply (Safety and Reliability) Act; and
4. Provision of capacity for fire-fighting.

Compliance issues arise as a consequence of growth. In particular, whilst regulatory compliance is often a driver for the upgrade of a sewage treatment plant (STP), the principal cause is growth in the connected catchment exceeding either the STP capacity, or the Environmental (Licence) limit.

## 8.6. CAPITAL PLANNING PROCESS AND PRIORITISATION

A risk based prioritisation model is used to assess projects across the region and allows each project to be assessed, scored and ranked.

Projects are evaluated and scored against six weighted criteria which align with Unitywater's corporate risk assessment methodology, including;

1. Safety
2. Environmental
3. Financial
4. Service delivery
5. Legal and Regulatory
6. Image and reputation

Four of these criteria utilise a risk calculation approach (likelihood \* consequences) to add additional rigour to the scoring process. Each criteria is assigned a weighting and the combined aggregate scores are then used to rank the projects within the draft program.

Note projects that meet the following specific triggers are automatically included in the capital expenditure program. These triggers include:

- Specific statutory or legislative requirements;
- Extreme public, WH&S or environmental risks;
- Certain risks identified on the company risk register; and
- Previously commenced projects that must continue.

### 8.6.1. NON SYSTEM CAPITAL

Primarily non-system capital expenditure relates to fleet, accounting system, asset and information systems, billing system (retail) and tools. These capital expenses are discussed below:

- **Fleet** - A comprehensive review of Unitywater's fleet requirements and sourcing options was recently conducted with the assistance of an independent consultant. As a result it has been decided to improve the assessment of replacement timing and buying assets instead of leasing them. In addition, a fleet rationalisation and standardisation project is in progress

which has resulted in the sale of excess fleet. The resultant capital expenditure profile for the next three years is as follows:

Type (\$M)	FY2012	FY2013	FY2014	FY2015
New Additional Vehicles	0.3	0.1	0.1	0.2
Fleet Renewals – Light	6.3	4.4	2.3	3.5
Fleet Renewals – Heavy	0.7	0.3	0.4	0.6
Fleet Renewals – Trucks	2.0	1.9	1.4	2.9

Unitywater is monitoring its replacement program; utilisation rates, and expects further improvements as some trucks and plant are replaced with assets that can be utilised for a broader range of operational requirements.

- **ICT** - Program Paramount represents establishment of key organisational capabilities to deliver significant improvements in operating efficiency. Major ICT initiatives undertaken in 2011-12 included commissioned and/or progressed development of an Electronic Document Records Management System; Enterprise Data Warehouse / Services (integration); GIS consolidation project; Consolidated Asset Management System; Unity network single domain project; Unify billing and customer services system and an upgrade to the SCADA system. Unitywater has completed project EXIT which has migrated and decommissioned applications/systems and unstructured data from Councils.
- Unitywater inherited different billing systems from each of the participating councils that were not purpose built for utility billing. A new integrated billing system designed for water and sewerage utilities was commissioned in 2011-12 with rolling quarterly billing in arrears across both regions.

#### 8.6.2. FUNDING THE CAPITAL WORKS PROGRAM

Funding of capital works historically had been through government grants and subsidies, developer cash contributions, trunk assets donated in lieu of cash and non-trunk assets built by developers as developments proceed.

The State Government ceased the 40% capital subsidy and capped developer contributions, thereby reducing the levels of both cash and donated trunk assets. As the cost of the infrastructure has not decreased the impact is a greater reliance on capital expenditure which will ultimately impact on utility charges and funding through debt or use of retained earnings.

Unitywater will need to balance use of loans and retained earnings to fulfil the objectives of sustainability and providing returns to the participating councils.

### 8.6.3. VARIATIONS IN PREVIOUS FORECASTS FOR CAPITAL EXPENDITURE

Table 22 (below) illustrates variances in capital expenditure by region and cost driver as provided in the 2011-12 submission compared to that provided in the current submission.

**Table 22** Variance in forecast capital expenditure by region and cost driver (\$M)

Variance by Region (\$M)	Cost Driver	FY2012	FY2013	FY2014
<b>Unitywater</b>	New assets	(32.1)	179.3	(53.8)
	Renewal	3.5	13.7	8.4
	Improvements	10.5	9.9	47.7
	Compliance	(20.8)	(33.0)	(29.0)
	<b>Total capital expenditure</b>	<b>(39.0)</b>	<b>169.9</b>	<b>(26.7)</b>
	Developer Provided	5.0	7.3	2.0
	<b>Total Capital Program</b>	<b>(33.9)</b>	<b>177.2</b>	<b>(24.7)</b>
<b>Variance from 2011-12 submission</b>		<b>(12.6%)</b>	<b>101.4%</b>	<b>(9.0%)</b>

The capital expenditure forecast provided in the 2011-12 submission are greater than the forecast data provided in this current submission. This trend can be attributed to various factors including but not limited to:

- Unitywater efforts to optimise capital forecasts and innovative lower cost capital options as opposed to relying on council estimations of future capital requirements;
- Unitywater forming its own view on assets condition and performance;
- Unitywater having the benefit of operational information to obtain a greater understanding of its area and the business's capital needs, resulting in a more accurate prediction of future expenditure and network requirements;
- Unitywater achieving efficiencies and sourcing alternatives to expenditure than previously forecast by the individual councils (as evidenced by the Brendale STP capital expenditure deferral by pumping sewage into QUU's network for treatment); and
- The capital justification process applied by the Capital Works Committee put in place to justify needs, options, scope and delivery of major projects.



## 9. CONTRIBUTED / DONATED ASSETS

The return of assets (depreciation) and return on assets (asset base x WACC) are significant components of the pricing structure for regulated utility services such as water and sewerage. The level of external funding for infrastructure (capital revenue) provided directly at the time of construction reduces the funding burden on the utility. This theoretically holds true whether the asset offset or the revenue offset method for recognition of this capital revenue are used, however tax implications where cash contributions become taxable revenue and Unitywater pays tax on those capital contributions reduces the capital available to build the infrastructure but the cost of the infrastructure does not similarly decrease. The end result is that Unitywater has fewer resources to do the same amount of work and will have to fund the difference most likely from borrowing or by reprioritising other expenditure in order to live within its means.

This capital revenue usually comes from either government or developers. In the case of the government, this has been in the form of grants or subsidies. In the case of developers, this has been in the form of cash contributions (developer charges), donated trunk infrastructure in lieu of cash contributions, or the donation of non-trunk infrastructure.

The latter two are often both called donated assets. The amount of trunk infrastructure donated in lieu of cash contributions is usually at the discretion of the developer and tends to be higher in the case of infrastructure agreements than for developments approved under a planning scheme. Nevertheless the majority of donated assets are non-trunk and the majority of developer contributions are cash.

### 9.1. RECENT CHANGES IN EXTERNAL FUNDING LEVELS

Two changes made by the State Government since the water reform process began are likely to have a significant impact on the level of capital revenue:

1. The removal of the 40% State infrastructure subsidy for STP upgrades; and
2. The recent decision to set a maximum charge for the level of infrastructure charges for water and sewerage until 30 June 2013.

The combined impact of these two changes has seen increased pressure on utility charges to fund the infrastructure necessary to deliver water and sewerage services.

### 9.2. HISTORIC FUNDING LEVELS

Actual results are supplied for 2008-09; 2009-10 and 2010-11. The values for donated assets were obtained from the detailed asset information supplied by the participating councils as part of the roll-forward of the RAB and from Unitywater's own files.

The 2009-10 capital revenue was agreed in aggregate to councils' audited financial statements; however, they were not separated by councils into the level of disaggregation required by the QCA. In allocating developer contributions, assumptions needed to be made as contributions were classified as unallocated at the time of receipt. Moreover, records were not always kept by councils to tie contributions to individual assets or classes. Accordingly, Unitywater has not been able to allocate cash contributions. This is reflected in the templates provided.

### 9.3. FORECAST FUNDING LEVELS

The information for 2012-13 is based on Unitywater's second quarter estimates and will need to be updated when final results are available. This will have an impact on the final RAB and MAR calculations.

The forecasting of developer cash contributions is a difficult exercise. The final results depend on the mix between infrastructure agreements and planning scheme charges. It also depends on the level of the donation of trunk infrastructure in lieu of cash. In the case of the former, Unitywater has relied on the advice of the participating councils. In the case of the latter, Unitywater has assumed that the mix of donated trunk and non-trunk infrastructure assets in the forecast years will remain consistent with 2010-11. The rate of funding per lot will also be altered by new state legislation.

The forecast level of cash contributions and donated trunk assets for each region and service has been based on the results of negotiations with the participating councils to set the level of developer charges in accordance with the draft State Planning Regulatory Provision (SPRP) which provides for Unitywater's agreed apportionment of the maximum adopted charge.

The level of donated non-trunk assets for each region and service has been based on the actual results to the quarter two review for 2011-12. The basis for these calculations is provided as part of the supporting documentation for this submission.

### 9.4. RECEIPTS FOR EACH REGION

Table 23 (below) indicates the level of receipts for the Moreton Bay region, as currently estimated.

**Table 23** Level of receipts for the Moreton Bay region, as currently estimated.

\$M	Classification	FY2011	FY2012	FY2013	FY2014	FY2015
<b>Water</b>						
	Cash contribution	9.6	8.9	10.6	11.0	11.4
	Donated assets	9.5	5.4	6.5	6.7	6.9
	<b>Total</b>	<b>19.1</b>	<b>14.3</b>	<b>17.1</b>	<b>17.7</b>	<b>18.3</b>
<b>Wastewater</b>						
	Cash contribution	10.5	7.7	9.2	9.6	9.9
	Donated assets	16.4	9.4	11.2	11.7	12.0
	<b>Total</b>	<b>26.9</b>	<b>17.2</b>	<b>20.5</b>	<b>21.3</b>	<b>22.0</b>

Table 24 (below) indicates the level of receipts for the Sunshine Coast region, as currently estimated.

**Table 24** Level of receipts for the Sunshine Coast region, as currently estimated

\$M	Classification	FY2011	FY2012	FY2013	FY2014	FY2015
<b>Water</b>						
	Cash contribution	11.2	2.6	3.1	3.2	3.3
	Donated assets	11.4	6.5	7.8	8.1	8.3
	<b>Total</b>	<b>22.6</b>	<b>9.1</b>	<b>10.8</b>	<b>11.2</b>	<b>11.6</b>
<b>Wastewater</b>						
	Cash contribution	8.1	3.8	4.5	4.7	4.8
	Donated assets	17.8	10.2	12.1	12.6	13.0
	<b>Total</b>	<b>25.8</b>	<b>14.0</b>	<b>16.6</b>	<b>17.3</b>	<b>17.9</b>

#### 9.5. ADJUSTMENTS FOR ACTUAL RECEIPTS

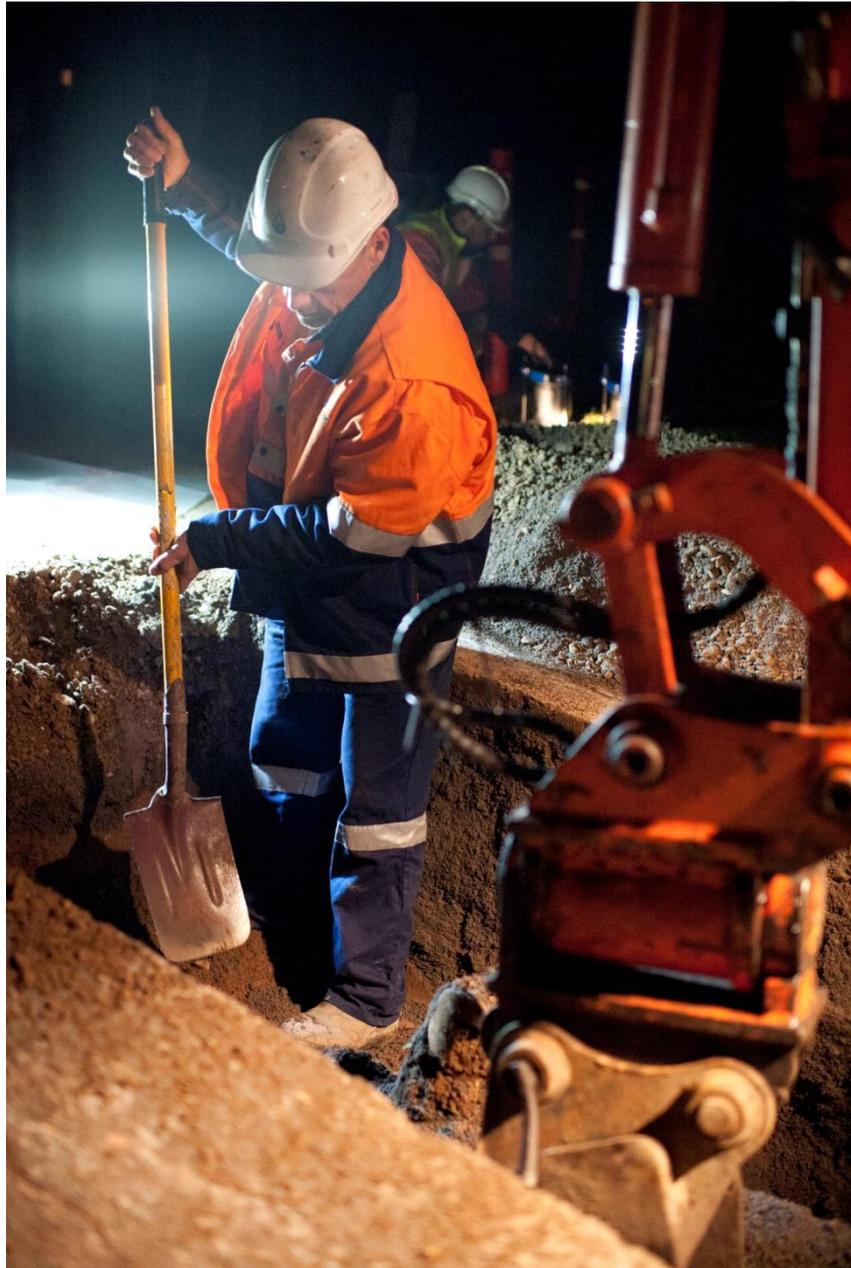
The revenue offset approach requires capital contributions to be offset against the MAR, to determine the residual revenue that can be recovered from Unitywater's customers through utility charges and other fees and charges.

The MAR described in this information return has been adjusted by the forecasts set out above for capital contributions. Forecasting capital contributions is difficult and subject to uncertainty. Consequently, Unitywater intends to adjust the MAR and the RAB at the end of each year to reflect actual capital contributions received.

#### 9.6. CAPITAL CONTRIBUTIONS CONTINUE REVENUE OFFSET METHOD

The previous information requirement asked for the nomination of any date that Unitywater intends to adopt the asset offset method. Given current uncertainty about regulatory requirements beyond June 2013, Unitywater will review the regulatory situation each year and may consider a transitional approach by moving to asset offset for donated physical assets, but not cash, when and if this is in the best interests of its customers.

Any decision to transition to asset offset from revenue offset, must be taken in light of the regulatory framework.



## 10. DEPRECIATION AND ASSET LIVES

This section discusses standard and remaining asset lives and the calculation of regulatory depreciation and regulatory tax depreciation.

### 10.1. QCA FINDINGS FROM 2011-12 INTERIM PRICE MONITORING REVIEW

Unitywater acknowledges the QCA's and its consultant Sinclair Knight Merz's (SKM) draft and final reports and comments regarding Unitywater's asset lives for regulatory asset base and regulatory tax asset base purposes.

Unitywater believes the observations are the result of:

1. Input error in the case of asset lives for two asset classes: 'Billing systems' and 'Building other than infrastructure housing';
2. Simplifying assumption by assuming regulatory tax standard lives to be the same as regulatory asset base lives; and
3. Variation within a range of reasonable asset lives.

In response to the first observation Unitywater has corrected the input errors identified by the QCA and SKM in this year's interim price monitoring submission as follows:

Asset Class	Previous Standard Life Years	Revised Standard Life Years	Previous Effective Tax Life Years	Revised Effective Tax Life Years
<b>Billing systems</b>	58	5	58	5
<b>Building other than infrastructure housing – drinking water</b>	20	60	20	60

In response to the second and third observation, Unitywater discusses the proposed approach in the next sub-section.

### 10.2. TAX ASSET LIVES - EFFECTIVE AND REMAINING INTERIM APPROACH

Clause 5.15.1 of the QCA's information requirements requires written-down asset values and remaining useful lives for tax purposes to be provided, along with tax lives for new assets or asset classes.

Unitywater's initial position assumed equivalence of tax lives with regulatory lives as a simplifying assumption. Unitywater acknowledges SKM's suggestion that Australian Taxation Office Rulings can be used to identify the effective tax life. Unitywater received some input from KPMG regarding establishing effective tax lives and can provide that material as part of 2012-13 price monitoring process. Unitywater notes that SKM's proposed tables were incomplete due to identified mapping and coverage issues in finding appropriate tax asset lives from the ATO publication.

Unitywater in this submission has continued to apply the assumption that standard regulatory asset lives are equivalent for regulatory tax calculation purposes.

Unitywater will work through resolving asset and tax lives during the 2012-13 Interim Price Monitoring Review, rather than making non-agreed changes in this initial submission which is the third and final of a series of three price monitoring submission to the QCA.

As part of this process Unitywater would also appreciate the QCA's thoughts on how modifications to regulatory standard and remaining asset lives; and regulatory effective tax and remaining asset lives in the future as new information comes to light or a desire to align statutory accounting and regulatory asset assumptions.

### 10.3. SUMMARY OF GENERAL APPROACH TO DEPRECIATION

Unitywater uses straight line depreciation, calculated at the individual asset level, and not at the higher level grouping of asset class. The only exception is minor information gaps previously noted in relation to the RAB roll-forward. Recalculation at the asset class level may result in small variations to Unitywater's estimate of regulatory depreciation due to assets with lives ranging from 20 to 100 years being grouped together and assigned a single average life.

Regulatory depreciation is calculated using a 'mid-year' commissioning assumption consistent with the QCA's guidelines. Forecast capitalised or donated assets are assumed to be commissioned at the 'mid-point' of their respective commissioning year, resulting in each asset receiving half a year's depreciation, and indexation, in the commissioning year.

### 10.4. STANDARD ASSET LIVES

Unitywater has provided standard asset lives for new and existing assets in the QCA's templates 5.8.1.1 and 5.8.1.2. The asset lives by category have been calculated as the weighted average of each individual asset within the specified asset class, as per the following formulas:

$$\text{New Assets useful life per asset class} = \sum (RAB * \text{useful life}) / RAB$$

$$\text{Existing Assets RUL per asset class} = \sum ((RAB - \text{Residual value}) * RUL) / (RAB - \text{Residual value})$$

Unitywater commissioned Cardno, an engineering consulting firm, to review its asset lives for categories of water and sewerage assets.<sup>33</sup> Unitywater has adopted the consultant's recommended standard lives. These useful lives were applied to determine the depreciation on capitalised assets (on an individual asset basis) for the period (2010-11 – 2014-15).

In some limited circumstances, applying the consultant's asset life for a particular type of asset resulted in reducing the remaining life of assets still in service to zero. The value of assets in question was approximately \$17 million. Given the relatively small nature of the discrepancy Unitywater has decided to adopt a two-year remaining life on these assets. This was applied to align with the interim price monitoring period to 30 June 2013, and align with the development of Unitywater's Asset Management System and the condition-based replacement. Unitywater considers the application of a conservative two year life appropriate until better condition based evidence becomes available.

<sup>33</sup> Cardno Report, February 2011: Valuation of Water Supply, Recycled Water and Wastewater Assets; Appendix C – Useful Lives

The standard lives by asset category are summarised in Table 25 (below).

**Table 25** Standard asset lives (New and Existing Assets)

**New Assets – Both Regions**

<b>Category</b>	<b>Water</b>		<b>Wastewater</b>		<b>Non-Regulated</b>
	Drinking	Other	Via Sewer	Trade waste	Non-Regulated
Reservoirs	54	-	80	80	-
Pump stations	34	-	46	46	-
Treatment	47	25	49	49	-
Associated telemetry	22	10	32	32	-
Meters	35	15	-	-	-
Billing systems Proposed	5	5	5	5	-
Corporate systems	13	13	13	13	-
Sundry PPE	11	-	10	10	-
Land	-	-	-	-	-
Building other	60	-	60	60	-
Distribution infrastructure	45	66	51	51	-
Support services	5	5	5	5	5
Mains	55	18	55	55	-
Establishment costs	8	8	8	8	8
Unallocated cash	-	-	-	-	-

**Statutory remaining asset lives lengthened:**

In Unitywater's statutory asset base the remaining lives of several assets has been extended. The remaining life extensions have not been reflected in this submission, although Unitywater is happy to discuss if the QCA has any preference for alignment.

## Existing Assets – Moreton Bay Regional Council as at 1 July 2008

<b>Category</b>	<b>Water</b>		<b>Wastewater</b>		<b>Non-Regulated</b>
	Drinking	Other	Via Sewer	Trade waste	Non-Regulated
Reservoirs	58	-	-	-	-
Pump stations	24	-	43	43	-
Treatment	-	-	41	41	-
Associated telemetry	21	-	8	8	-
Meters	14	58	51	51	-
Billing systems	-	-	-	-	-
Corporate systems	2	2	2	2	-
Sundry PPE	4	4	4	4	-
Land	-	-	-	-	-
Building other	80	80	80	80	-
Distribution infrastructure	31	23	52	52	-
Support services	8	8	8	8	-
Mains	32	58	57	57	-
Establishment costs	-	-	-	-	-
Unallocated cash	-	-	-	-	-

## Existing Assets – Sunshine Coast Regional Council as at 1 July 2008

<b>Category</b>	<b>Water</b>		<b>Wastewater</b>		<b>Non-Regulated</b>
	Drinking	Other	Via Sewer	Trade waste	Non-Regulated
Reservoirs	50	-	-	-	-
Pump stations	28	26	42	5	3
Treatment	47	58	29	-	-
Associated telemetry	9	-	12	-	-
Meters	30	-	-	-	-
Billing systems	-	-	-	-	-
Corporate systems	-	-	-	-	-
Sundry PPE	19	-	11	4	8
Land	-	-	-	-	-
Building other	31	-	32	-	-
Distribution infrastructure	41	54	41	-	-
Support services	-	-	-	-	-
Mains	-	-	-	-	-
Establishment costs	-	-	-	-	-
Unallocated cash	-	-	-	-	-

## 10.5. DEPRECIATION

The following approach has been adopted when calculating historical and forecast depreciation:

### Historical depreciation (2007-08 – 2009-10)

- Useful lives were applied to the opening asset base as at 1 July 2008 and capitalised assets during the roll-forward period to 30 June 2010. These useful lives were based on the individual asset details provided by the councils. These asset records were balanced in aggregate to the financial statement notes;
- Depreciation relating to asset acquisitions (capitalised and developer provided) during the period 1 July 2008 to 30 June 2010 was calculated on the basis of council asset useful life assumptions and pro-rated in accordance with the acquisition date.
- Depreciation relating to asset acquisitions (capitalised and developer provided) during the period 1 July 2010 to 30 June 2012 was calculated on the basis of Unitywater asset useful life assumptions.

### Forecast depreciation (2011-12 – 2014-15)

- Forecast depreciation on capitalised assets for the period 1 July 2011 to 30 June 2015 was calculated on an individual asset basis with half-year depreciation based on mid-year commissioning.
- Useful lives were assigned to each individual asset based on the useful lives provided in the Cardno report. These useful lives were used to determine depreciation for each asset on a straight line basis, based on the asset's written-down value (WDV) as at 1 July 2011;
- Forecast depreciation on developer donated assets for the period 1 July 2011 to 30 June 2015 was calculated at the aggregated service level (water / sewerage), as opposed to the individual asset level. The average useful life for each respective service level was calculated and applied in determining forecast depreciation. The average useful lives were calculated as 45 years and 66 years for water and sewerage respectively. This methodology was applied due to information constraints in donated asset data provided by developers;
- As previously mentioned, a two-year Remaining Useful Life (RUL) was applied in some instances where an asset had a WDV greater than its residual value and a Cardno RUL of zero. This was applied to reflect the fact that the asset is still in use;
- All forecast capitalised and donated assets were indexed, in accordance with the indexation methodology discussed in Section 11, prior to the calculation of depreciation in any given year. It should be noted that indexation is also calculated using the 'mid-year' commissioning assumption discussed above i.e. capitalised assets only receive half a year's indexation in a commissioning year. This is illustrated in the formula below;

$$\text{Depreciation} = (\text{Opening RAB (WDV)} + \text{Indexation}) / \text{Useful life} + (((\text{Addition} + \text{Indexation}) / \text{Useful life}) / 2)$$

A summary of regulatory depreciation by region and service is provided in Table 26 (below).

**Table 26** Depreciation by Region and Service (\$M)

Region and Service	FY2011	FY2012	FY2013	FY2014	FY2015
<b>MBRC</b>					
<b>Water</b>					
Drinking	14.8	15.6	16.7	16.8	17.5
Other Core	1.8	1.8	1.9	2.0	2.1
<b>Wastewater</b>					
Via Sewer	26.8	28.7	32.5	35.4	36.7
Trade waste	0.7	0.8	0.9	1.0	1.0
Other Core	0.0	0.0	0.0	0.0	0.0
<b>Non-Regulated</b>					
Non-Regulated	0.2	0.2	0.2	0.2	0.2
<b>SCRC</b>					
<b>Water</b>					
Drinking	12.7	13.4	14.5	15.5	16.3
Other Core	0.2	0.3	0.4	0.4	0.4
<b>Wastewater</b>					
Via Sewer	20.3	19.6	21.2	24.0	26.4
Trade waste	0.6	0.6	0.7	0.8	0.8
Other Core	0.0	0.0	0.0	0.0	0.0
<b>Non-Regulated</b>					
Non-Regulated	0.0	0.0	0.0	0.0	0.0

The growth in regulatory depreciation occurs due to growth in capital expenditure and donated assets over the forecast period.

#### **Residual asset lives**

Unitywater has introduced residual asset lives in its statutory asset base. This has not been reflected in the RAB but will be a reconciliation item when making any comparisons between the RAB and statutory asset base.

#### **Asset systems**

Unitywater currently uses two asset management systems – Maximo in the north and Hansen in the south. Phase 1 of the CAMS Project was implemented in July 2012 ultimately it will deliver a single Consolidated Asset Management System (CAMS) for Unitywater, replacing current systems:

- Maximo 7.1 in the north;
- Hansen and KernMobile v4 in the south; and
- Asset Accounting database.

After a thorough review, Unitywater decided to use Maximo as the consolidated asset management system and KernMobile system (as currently used in the south) for the ISD mobile computing component.

Maximo is supplied and implemented by IBM Implementation Partners Clarita Solutions, a Brisbane-based systems provider, which has helped to implement Maximo at Sunshine Coast and Redland Regional Councils, among others.



## 11. INDEXATION OF ASSET BASE

This section sets out the indexation applied in the RAB roll forward. As required by the QCA, the annual June to June ABS Consumer Price Index (all groups, Brisbane) has been used for historical years; the March to March observation for the most recent financial year 2011-12 and the CPI estimate of 2.48% for forecast years as that reflects the QCA's preference for consistency with the WACC observation of 9.35%.

The indexation factors applied by Unitywater are as illustrated in Table 27 (below).

**Table 27** CPI for RAB Indexation

CPI indexation rate	Observation	Source
FY2008-09	2.02%	ABS publication 64010
FY2009-10	3.20%	
FY2010-11	3.84%	
FY 2011-12	1.32%	
FY2012-13 to FY2014-15	2.48%	QCA 2010-11 Final Report <sup>34</sup>

Unitywater has populated the RAB roll-forward in accordance with the QCA preference for deriving inflation.

**Table 28** Reserve Bank of Australia Inflation Forecasts, *Statement on Monetary Policy*, May 2012

	June 2012	June 2013	June 2014
CPI inflation	1.25%	2.5 – 3.5%	2.0 - 3.0%
Underlying inflation	2.0%	2.0 - 3.0%	2.0 - 3.0%

<sup>34</sup> QCA, Final Report SEQ Interim Price Monitoring for 2010-11 Part B Detailed Assessment page195



## 12. RETURN ON CAPITAL

The Responsible Minister's original Direction to the QCA dated 2 July 2010 required a weighted average cost of capital (WACC) 'within a reasonable range of values'. The Minister's amended Direction issued in June 2011 altered the instruction to read:

'The QCA shall:

- (i) Adopt a weighted average cost of capital (WACC) of 9.35% for 2011-12 and for 2012-13 unless otherwise advised by the QCA by 1 March 2012<sup>35</sup>.

The WACC of 9.35% that the Direction referred to was based on parameter estimates from the QCA's 2010-11 SEQ final interim price monitoring decision released in March 2011.

The QCA has committed to undertaking an industry wide WACC review although the scope and timing of this review remains unclear and Unitywater is uncertain whether there will be sufficient time to complete this review, including sufficient time for stakeholder consultation, prior to 1 March 2013. The participating Councils are required to release their final price paths and price mitigation plans for the period from 1 July 2013 to 30 June 2018 by 1 March 2013.

Significant financial, regulatory and political risk remain and are compounded by concurrent processes as follows:

1. Uncertain and evolving regulatory framework and Ministerial Direction;
2. QCA WACC review in 2012-13;
3. 2012-13 Interim Price Monitoring by QCA;
4. 2013-16 Price monitoring submission to QCA;
5. 2013-18 Council Final Price Paths published by 1 March 2013;
6. Maturing debt with both councils and Queensland Treasury Corporation; and
7. Tariff reform.

The concurrency of the above work program creates significant difficulty for Unitywater to manage the underlying financial and interest rate risk. Unitywater is required to take prudent financial risk mitigation steps to align debt funding with a WACC observation that will be current for the councils final price paths but that will be likely taken in the absence of full knowledge of the QCA's views on debt, WACC and the interaction or subordination of the councils final price paths in comparison to the QCA's 2013-16 and 2016-21 price monitoring role.

Unitywater has interpreted the existing Minister's amended Direction as requiring Unitywater and the QCA to use a WACC of 9.35% in the 2012-13 price monitoring review. Unitywater contends there are compelling reasons for the QCA to review and vary the WACC and recognises the appropriate forum to submit these views is likely to be the industry-wide WACC.

Some of the key concerns Unitywater has on WACC are outlined below. It is assumed that Unitywater will have the opportunity to submit its proposals in detail as part of the industry-wide review.

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<sup>35</sup> Queensland Government Gazette Vol 357 No68 Wednesday 29 June 2011

- (a) **New evidence on gamma:** The Australian Competition Tribunal (the Tribunal) decisions made in December 2010 and May 2011, in response to appeals of Australian Energy Regulator (AER) decisions submitted by ENERGEX, Ergon Energy and ESTA Utilities, found that the value of gamma is 0.25. The value was calculated as the product of 0.7<sup>36</sup> (dividend distribution rate) and 0.35<sup>37</sup> (theta). This overturned the decision by the AER who originally applied a value of 0.65 and later amended their position to 0.5, which is the value adopted by the QCA. Unitywater considers the Tribunal decision, which is based on a supporting study by Strategic Finance Group, represents the most robust estimate of gamma currently available.
- (b) **Regulatory Framework:** Continued capital markets uncertainty and nervousness, driven by a number of factors including the risk of sovereign debt defaults, suggest the Global Financial Crisis may not have receded into history. Unitywater is concerned about the possible impacts of any further major economic shocks and its inability to review its regulated WACC if there is any significant, adverse deterioration in global markets. Regulatory certainty is important for both Unitywater and its stakeholders. However under the current regulatory framework there is no clear mechanism to deal with significant, unforeseen events that occur during the course of a price monitoring period or the period of the price mitigation plans to 2018. For example, the types of mechanisms implemented elsewhere to address such uncertainties include:
- Under's and over's mechanisms;
  - Defined side constraints, and
  - Agreed nominated and general pass-through events.

In the absence of a considered regulatory framework and approach; Unitywater suggests that the QCA consider Unitywater's proposed MAT scheme in addition to defined and general pass-through events.

- (c) **Term structure:** the QCA's WACC methodology was described in its final report SEQ Interim Price Monitoring published in March 2011, was also applied in the 2011-12 interim price monitoring decision. Those decisions calculate the return on equity based on a three-year risk-free rate; the MRP estimate is based on a ten-year risk-free rate; whereas the estimation of the cost of debt recognises that the businesses will fund themselves over a longer period (based on the inclusion of the refinancing allowance).

Unitywater considers that all parameters should be estimated based on a consistent horizon and that a ten-year horizon is the most appropriate to assume in estimating the expected cost of debt and equity for regulated infrastructure (as this is compatible with the horizon of its investors). Unitywater submits that use of ten-year term estimates should be used to derive the risk-free rate, cost of debt and the MRP. Term structure consistency is also a concern when calculating the inflation estimate for indexation of the RAB using a five-year term.

- (d) **Finance principles:** The QCA's decision results in a cost of debt (9.69%) that is higher than the cost of equity (8.85%). This appears to be analogous with the concept of risk and return,

<sup>36</sup> Application by Energex Limited (Distribution Ratio (Gamma)) (No 3) [2010] ACompT 9 (24 December 2010)

<sup>37</sup> Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9 (12 May 2011)

on the basis that equity holders bear more risk than debt holders and should be compensated accordingly.

- (e) **Cost of debt methodology:** Unitywater endorses the QCA's recognition of refinancing risk (and the reality that regulated infrastructure businesses will seek, on average, to fund themselves for longer terms). However, it contends that this is most appropriately addressed by setting a ten year cost of debt, based on a ten-year risk-free rate and ten-year debt margin. Unitywater submits that there are conventional, reliable and transparent methods to estimate ten year BBB cost of debt that use observable market data, based on Bloomberg's fair value curves. For example, Unitywater suggests the QCA could:
- Extrapolate Bloomberg's seven-year BBB fair value yield to a ten-year yield based on the difference between the five and seven-year BBB yields; or
  - Alternatively a conservative estimate might be to observe the spread between the Bloomberg seven-year BBB fair value yield and the seven-year risk-free rate and add that spread to the ten-year risk-free rate to derive a ten-year BBB cost of debt.
- (f) **Debt raising costs:** Unitywater submits that debt-raising costs be included as an opex line item and not incorporated in deriving a cost of debt, as it is more transparent.
- (g) **Unitywater considers that the QCA should be mindful of the Participating Councils final price paths and interaction with such an important element as WACC, in the building blocks.**



## 13. OPERATING EXPENDITURE

Unitywater incurs operating expenditure in order to provide water supply; trade waste and sewage collection, transport and treatment services. Unitywater's forecast operating expenditure requirements include:

- Bulk water purchase on individual price paths for Moreton Bay and Sunshine Coast;
- Distribution and retail expenditure comprising employee wages and salaries, materials and services, corporate expenditure, customer service and billing expenditure; and
- Non-recurrent expenditure associated with projects that contribute towards consolidation of Unitywater's systems, people and processes.

Unitywater estimated its operating expenditure forecast taking into account:

- Expected demand for water supply and sewerage services;
- Expenditure required to maintain the quality, reliability and security of water supply and sewerage services to customers;
- Corporate and shared services costs;
- Expenditure incurred pumping potable water supply to customers and sewage through Unitywater's networks to sewage treatment plants; and
- Expenditure to operate sewage treatment plants within their environmental licences.

### 13.1. EFFICIENCY FACTOR ALREADY APPLIED TO FORECASTS

Unitywater's 2012-13 budget includes operational efficiencies and the Board remains committed to achieving further efficiencies in providing water supply; trade waste and sewage collection, transport and treatment.

Unitywater considers it has exceeded QCA's deemed efficiency factors and included these cost reductions in operating expenditure forecasts to June 2015. As such, no additional efficiency factor should be applied to forecasts.

In developing the 2011-12 budget the Board applied a \$10 million reduction to operating expenditures, which was achieved through efficiency, deferral, cancellation, scope correction and reprioritisation. This was achieved within the constraints of the workforce framework that was recently rescinded by the State Government.

The Board again applied the reduced base in developing the 2012-13 budget and in addition undertook a round of voluntary redundancies that resulted in total labour savings of \$3.4M and a reduction of 45 employees.

### 13.2. BULK WATER PRICE NOT CAPPED AT CPI

The former State Government introduced legislation that placed a CPI cap on distributor-retailer prices however that did not extend to the State Government set bulk water price. The current State Government has committed to revising the bulk water prices however a revised bulk water price path has yet been released.

Unitywater is required to pass through to customers the total increment in bulk water prices as advised by the SEQ Water Grid Manager. Bulk water prices contribute to the majority of the increase in operating expenditures over the forecast period.

### 13.3. CAPITALISATION POLICY

Unitywater adopted a conservative approach to its capitalisation policy when it commenced operations on 1 July 2010. Unitywater will continue to review its capitalisation policy, such as:

- The point at which planning and option assessment constitutes a point from which expenditure is capitalised to a project or program; and
- The extent that corporate and other expenditures are attributable to a capital project or program of expenditure.

Reviewing these matters has the potential to better reflect the costs and benefits of projects and programs over a longer period. Initially Unitywater attributed \$10.0M per annum of corporate support costs to delivery of the capital works program and for 2011-12 the value was closer to \$21.0M.

### 13.4. QCA INFORMATION REQUIREMENTS FOR OPERATING EXPENDITURE

The QCA's information requirements for 2012-13<sup>38</sup> detail disclosures related to operating expenditure. Within the QCA's explanatory notes relating to operating expenditure, there is a general requirement to disclose and explain where operating expenditures differ materially from previous estimates provided to the QCA.

Unitywater submits the following high level explanation of variances in previously advised operating expenditure forecasts.

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<sup>38</sup> SEQ Interim Price Monitoring Information Requirements for 2011-12 June 2011 page 14

**Table 29** Explanations of variance to previously advised operating expenditure forecasts.

Item	Impact	Time/Value
Cancelled or postponed projects	Numerous capital projects previously included in Unitywater's budget have been subsequently cancelled or postponed due to revised hydraulic modelling based on a change in growth projections.	The effect on operating expenses as a result of these cancelled or postponed projects is difficult to determine.
Refinement of accounting policies and budget processes	Unitywater continues to progress and refine capital planning, accounting policies and budgeting practices	<p>\$10.0M operating cost reduction an initiative from the 2011-12 budget process.</p> <p>\$10.0M corporate costs to be capitalised an initiative from the 2011-12 budget process.<sup>39</sup></p> <p>Total of \$3.4M labour savings resulting from 45 voluntary redundancies.</p>
Previous estimates based on either council forecasts or only a short period of operations	Unitywater's submission to the QCA for 2010-11 relied heavily on council forecasts for operating and capital expenditure. Unitywater has introduced more rigorous capital and operating expenditure assessment processes and implementation of those processes is resulting in improved project requirements, innovation, designs, sequencing and delivery.	The effect on operating expenses as a result of these updated estimates is difficult to determine.

### 13.5. OPERATING EXPENDITURE OVERVIEW

Unitywater's total operating expenditures for 2011-12 are based on second quarter full year forecast of \$239.0M. This compares favourably to the prior year submission estimate of \$234.2M.

The lower projected result for this period is due to lower bulk-water costs anticipated due to lower projected volumetric demand which was impacted by consistent rainfall.

For the 2012-13 financial year, operating expenditures are projected to be \$263.1M, based on the Board approved budget and represents an increase of \$24.1M compared to the projected 2011-12 submission. Table 37 summarises Unitywater's projected operating forecasts by expenditure category.

<sup>39</sup> Unitywater has progressed capitalisation of corporate costs but these have not yet been build into these forecasts.

**Table 30** Forecast Operating Expenditure by category (\$M)

Expenditure category	Previous year estimate FY2012	FY2012	FY2013	FY2014	FY2015
Bulk water costs	75.3	91.8	114.9	141.2	167.6
Chemicals expenditure	5.3	3.9	4.2	4.7	5.1
Contractor expenses	31.0	17.2	13.4	14.1	14.6
Corporate expenditure	35.9	33.9	33.9	35.1	36.1
QCA Regulatory Fees	0.6	0.3	1.7	1.7	1.7
Electricity charges	7.6	6.5	8.9	10.3	11.8
Employee expenses	51.0	54.3	52.2	53.0	55.3
Environmental licence or regulatory fees	0.5	0.4	0.4	0.4	0.4
Non recurrent expenditure	8.3	8.6	6.3	6.6	6.7
Other materials and services	14.3	17.8	23.2	24.7	25.7
Sludge handling costs	4.3	4.3	4.1	4.4	4.6
Total	234.2	239.0	263.1	296.2	329.7

Table demonstrates that non CPI capped bulk water costs account for 38.4% and 43.7% of total Unitywater operating expenditures for 2011-12 and 2012-13 respectively. Bulk water costs contribute 95.9% of the total increase in operating expenditures over the same period.

Operating expenditure for 2011-12 represent business as usual expenditures in addition to Program Paramount, which is focused on system and business integration. Additional recurrent and one-off expenditures will be incurred, in relation to development of corporate and retail capability. Increases in input costs such as bulk water, chemicals, electricity and disposal of bio-solids will impact on future operating expenditures, especially where there is high population growth (predicted population growth of 2.0% for Moreton Bay Regional Council and 2.2% for Sunshine Coast Regional Council by 2016)<sup>40</sup>.

<sup>40</sup> Reference to the OESR population estimates May 2011.

### 13.6. OPERATING EXPENDITURE SCOPE CHANGES

In forecasting operating expenditures beyond 2012-13, generic cost indices and geographic specific growth factors were applied after providing for expenditure scope changes.

**Table 31** Scope changes impacting expenditure estimates

Nominal (\$M)	FY2013	FY2014	FY2015	Comments
Council service level agreement expenditure	0.9	1.0	0.8	Residual agreements for ICT and accommodation remaining in-place until 2014
Kedron Brooke scheme expenditure (capex deferral)	deferred	4.7	4.8	Brendale STP diversion until 2017
Price mitigation plan support (non recurrent)	0.7	0.3	0	Joint workings with council to March 2013. This expenditure is not included in the initial approved budget
Project Paramount expenditure (non-recurrent expenditure)	4.1	2.1	0	Expenditure for consolidation of systems and processes
Operating Expenditure reductions	(10.0)	(2.4)	(6.7)	Budget expenditure reduction initiatives

### 13.7. COST ALLOCATION METHOD

Unitywater developed revenue and cost allocation models that identify individual expenditures in the general ledger by natural account. Expenditure is mapped to regions, activities, services and expenditure categories as required by the QCA.

The allocation model provides detail on expenditure drivers that are not directly attributable to a service and demonstrate how they are allocated. The allocation model provides a transparent link between budgets and QCA categories, services, activities and regions.

Unitywater's underlying principle for allocation of operating expenditures to specified reporting categories was on an individual account basis, as follows:

- Expenditures directly attributable to a geographic area, activity and service were identified; and
- Indirect expenditures were identified and allocated to reporting categories on the basis of identified drivers.

Table 32 (below) provides a summary of direct and indirect expenditures.

**Table 32** Direct and indirect operating expenditures 2012-13 (\$M)

Region	Direct Expenditures	Indirect Expenditures	Total Operating Expenditures
MBRC	\$107.2M	\$38.8M	\$146.0M
SCRC	\$82.M	\$34.3M	\$117.0M
<b>Total operating expenditures</b>	\$190.0M	\$73.1M	\$263.1M

### 13.8. OPERATING EXPENDITURE ESCALATION AND GROWTH RATES

Expenditure associated with water supply and sewage collection, transport and treatment are not homogenous across SEQ. Differences within the SEQ region may be attributable to geography, logistics, storage, volume, technology, customer density and contracting strategy, to name a few.

Table 33 (below) provide the growth and cost escalations applied by Unitywater in forecasting operating expenditures to 2014-15.

**Table 33** Source of growth and cost indices

Expense Category	Region	Source For Cost Indices	Source For Growth Indices
Bulk water costs	MBRC	Queensland Water Commission published bulk price path with 2.5% indexation applied for nominal values.	Dwelling Growth MB - PIFU
	SCRC		Dwelling Growth SC - PIFU
Chemical costs	All	2012-13 - CPI target from RBA, 2013-14 - CPI consistent with asset indexation.	Dwelling Growth Regional - PIFU
Contractor expenses	All	Current budget assumption is that costs are primarily labour and closely track labour escalations.	No growth assumed
Corporate support costs	All	2012-13 - CPI target from RBA, 2014-15 CPI consistent with asset indexation.	No growth assumed
Electricity charges	All	Cost index: BRCI for 2012-13 published by QCA	Dwelling Growth Regional - PIFU
Employee expenses	All	Current budget assumption reflects 0.5% salary progression above EBA.	No growth assumed
Indirect taxes	All	2012-13 - CPI target from RBA, 2014-15 - CPI consistent with asset indexation	No growth assumed
Licence or regulatory fees	All		No growth assumed
Non recurrent costs	All		Zero based no growth assumed
Other materials and services - Direct costs	All		Dwelling Growth Regional - PIFU
Other materials and services - network and retail OH	All		No growth assumed
Sludge handling costs	All		Dwelling Growth Regional - PIFU
General	All		No growth assumed

**Table 34** Growth and cost indices percentages applied in 2013-14 and 2014-15 (%)

Expense	Region	FY2013-14			FY2014-15		
		Growth Index	Cost Index	Total	Growth Index	Cost Index	Total
Bulk water costs	MBRC	7.1%	13.1%	21.1%	7.1%	12.1%	20.0%
	SCRC	6.8%	17.6%	25.6%	1.7%	15.5%	17.4%
Chemical costs	All	7.5%	3.5%	11.2%	5.1%	3.4%	8.7%
Contractor expenses	All	2.4%	3.5%	5.9%	-0.1%	3.4%	3.3%
Corporate support costs	All	0.0%	3.5%	3.5%	-2.1%	3.4%	1.2%
Electricity charges	All	3.7%	11.4%	15.6%	3.4%	11.4%	15.2%
Employee expenses	All	-2.7%	3.8%	1.0%	0.8%	3.4%	4.2%
Indirect taxes	All	0.0%	3.5%	3.5%	-2.1%	3.4%	1.2%
Licence or regulatory fees	All	3.3%	3.5%	6.9%	0.4%	3.4%	3.9%
Non recurrent costs	All	0.0%	3.5%	3.5%	-2.1%	3.4%	1.2%
Other materials and services - Direct costs	All	3.3%	3.5%	6.9%	0.4%	3.4%	3.9%
Other materials and services - network and retail support costs	All	0.7%	3.5%	4.3%	-1.4%	3.4%	1.9%
Sludge handling costs	All	3.3%	3.5%	6.9%	0.4%	3.4%	3.9%
General	All	N/A	N/A	N/A	N/A	N/A	N/A

### 13.9. EXPENDITURE COLLECTION AND FORECASTING

Operating expenditures have been captured by region and attributed to activities, services and expenditure categories. Information has been sourced as follows:

- 2009-10 and 2010-11 – Audited Financial Statements supplied by respective councils; and
- 2011-12 to 2014-15 – Detailed budget information by expenditure code and natural account.

### 13.10. PLAN TO BUILD FORECASTING METHODOLOGY

Unitywater's emerging capabilities in terms of understanding its asset base, demand forecasts and resulting operating expenditure forecasts reflect the developing nature of the business and forecasting methodology.

During 2011-12 Unitywater committed significant funding to invest in an integrated asset management system and a common SCADA platform in order to provide the tools to produce information that will allow us to plan more effectively.

The asset management system is an integral tool to aid Unitywater's planning of maintenance and renewal expenditures and provide information regarding operating commitments on a condition and performance based assessment of its assets.

SCADA project brings together information and system control into a single platform and provides information to leverage efficiencies and service delivery through network optimisation.

Unitywater's expectation is that the new systems will require a period of time to fully mature and gain sufficient information to identify and realise benefits.

### 13.11. PLANNED MAINTENANCE

Unitywater is developing a proactive approach to maintenance and will progress toward a condition and performance based replacement methodology for renewals. In association with the commissioning of a single asset management system, this will provide Unitywater with greater ability to identify potential defects prior to unplanned network incidents.

Planned maintenance is a direct operating expense and vital in ensuring the network meets the needs of Unitywater's customers for safe, reliable and secure supply of water supply and sewage collection, transport and treatment.

### 13.12. REACTIVE REPAIR

Reactive repairs are unplanned outages to correct a failure of an asset, pipe, pump, tank or the infrastructure asset that impacts on the performance, security, supply, or reliability of water reticulation or sewage treatment services.

Reactive repairs restore serviceability and functionality of the network and in some instances are temporary in nature until planned maintenance can be arranged. Unitywater has forecast reactive repair from the limited historical information available at the time the budget was formulated in early 2011.

### 13.13. VEGETATION MANAGEMENT – CCTV PIPE CAMERA

Unitywater conducts inspections to detect potential defects requiring remedial, programmed or priority response. Typically the most difficult parts of the network to inspect are the pipe networks for both water supply, and sewer network. Routine inspection periods for the same type of asset may change due to the presence of acid sulphate soils, stormwater inundation, leakage, vegetation type and illegal connections.

Unitywater is continually learning about the condition of its networks as it conducts kilometres of optic fibre camera reconnaissance. Observations assist with understanding the condition and

performance for the age of particular assets. This can be used to better schedule planned maintenance activity.

Unitywater's vegetation management attempts to balance the reliability impacts of vegetation root growth with community views on riparian corridors, aesthetic qualities of domestic gardens and environmental concerns regarding tree removal.

Unitywater attempts to mitigate unnecessary removal of trees through the use of special compounds that only kill encroaching roots in the pipe network. Modern pipes have fewer problems than previous generation earthen clay pipes, however fractures or minor defects in a pipe wall can be quickly detected and exploited by water hunting tree roots. Unitywater considers total tree removal as a last option.

### 13.14. EMERGENCY RESPONSE

In Unitywater's service area, emergency responses can occur due to a range of circumstances. Damage to infrastructure may occur as a result of an isolated incident or over time resulting in asset failure requiring repair.

The 2011 floods in SEQ demonstrated that Unitywater is well prepared to continue operations during a major incident. Most of Unitywater's critical infrastructure has alternative stand-by generation capacity in order to maintain operation.

During the January 2011 floods, Unitywater activated its Incident Management Teams to minimise impacts on customers, the environment and network infrastructure. Additionally, Unitywater nominated representatives to participate in and inform Sunshine Coast and Moreton Bay Regional Council Disaster Management Teams on issues related to Unitywater that may impact regional councils.

Unitywater's experience with the SEQ floods suggests the network outperformed expectations and the treatment plants were never off line, although some did operate in by-pass mode due to the level of storm and flood water that inundated the sewer system increasing flows beyond the capacity of the plant's design. However, within less than a week all of Unitywater's STPs were operating normally.

### 13.15. RETAIL AND NETWORK CONTACT CENTRE

Retail forecasts reflect operating expenditure arising from the provision of customer services such as meter reading; account generation and collection; customer contact centre operation; and complaint and ombudsman stakeholder interaction.

Key initiatives in relation to Unitywater's retail functionality for 2011-12 relate to call centre functionality and go live of a consolidated billing and customer information management system.

In July 2010, the Retail Division inherited two property-based billing systems as well as separate meter reading cycles, printing and banking arrangements.

Unitywater's new customer Billing and Information System was commissioned in January 2012 and replaced the two existing council systems. The project delivered the following benefits:

- Improved customer service standards;
- Replacement of two property-based legacy systems;

- Aligned billing and customer systems with Unitywater’s strategic business and enterprise architectures;
- Met legislative requirements for quarterly billing and is system capable of tenant billing if that is implemented; and
- Removes reliance on regional councils’ ICT infrastructure and support.

### 13.16. RETAIL METERING SERVICES

Unitywater has a variety of meters in service within its area of operations. Meter reading is conducted by a contracted service provider. As meters age their operational performance can deteriorate and testing of decommissioned meters is an important step in understanding asset performance and identifying issues with particular meter types.

Unitywater has moved from six monthly to quarterly billing on the Sunshine Coast and concurrently moved from fixed period reading and bill issuing dates to a rolling schedule of meter reading and billing across the whole of Unitywater’s customer base on an arrears basis from both usage and access charges. The impact will be a smoothing of meter reading by spreading the workload. Another benefit will be a reduction in the time between the meter read and customer billing.

### 13.17. ICT EXPENDITURE

Unitywater identified within its business plans a number of challenges, programs and key initiatives relating to information communication and technology services. Table 35 (below) summarises these challenges together with Unitywater’s key proposed initiatives.

**Table 35** ICT key challenges and initiatives

Challenges	Key Initiatives
Disparate ICT landscapes inherited from councils contained duplicated application functionality for core business systems and multiple network domains constraining system access and knowledge sharing	Establish the ICT architecture framework
220+ applications Decentralised ICT procurement practices in councils created duplication and a cost-ineffective ICT environment	Consolidate operations (aligned around Project Paramount)
Poor data quality within inherited information systems	Establish core controls to improve ICT management
Multiple data sources which feed manually into reporting processes	Develop and approve core / key ICT processes and policies

Unitywater is detailing its plan to improve GIS capability and support the business through improved geographical-based business information. The focus of the GIS project will be to improve business operation in areas such as to support engineering, design, construction and works

management, deliver enhanced environmental planning and management, support customer care and management (Dial Before You Dig, property and meter management), simplify service and maintenance enquiries and improve load forecasting and planning.

Other major ICT initiatives for 2011-12 included delivery of the Electronic Data Records Management System, Unity Network, Project EXIT and Phase 1 for GIS and CAMS..

### 13.18. EMPLOYEE EXPENDITURES

Unitywater's employees were covered by the *SEQ Distribution and Retail Water Reform: Workforce Framework 2009* (the Workforce Framework) which protected the terms and conditions of employment for employees affected by the transfer of water and wastewater functions from local governments to Unitywater. The Workforce Framework was to expire 30 June 2013. Although the amendment legislation has repealed the framework, a number of the protection mechanisms may well continue to have effect in the Unitywater Certified Agreement No. 1. Unitywater will continue to review the opportunities available with the repeal of the framework.

The Workforce Framework ensured there were no forced redundancies, or overall loss of employment, as a result of the water reforms within the councils or the new water entities during the reform period. The Queensland State Government stated in the Workforce Framework objectives that labour savings are not, and never have been, a driver for water reform, and workers' entitlements and terms and conditions of employment were to be protected.

Unitywater continues to identify incremental roles, functions and responsibilities that necessitate support staff in addition to the two operating business units that were transferred to Unitywater from Moreton Bay Regional Council and Sunshine Coast Regional Council. This is made more critical as Unitywater becomes increasingly ICT self-sustaining.

Unitywater has made significant progress toward identifying efficiencies. For example, the Certified Agreement contains the following:

- Extending current working hours so that the workforce start and finish times are staggered, thereby more closely matching workforce availability with call outs for reactive maintenance;
- On-site start/finish work arrangements for field service crews ; and
- Employees' pay parity across Unitywater's workforce (i.e. same work/same pay).

Unitywater undertook a process of seeking expressions of interest for voluntary redundancies during 2011-12 and that process resulted in acceptance of 45 voluntary redundancies.

### 13.19. ELECTRICITY EXPENDITURES

Unitywater is taking steps to reduce electricity expenditure through the following initiatives:

- Procurement of electricity through market tendering that result in a saving through bulk purchases and volume discounts; and
- Through the capital works program by projects to rationalise the number of pump stations in order to optimise network asset utilisation and operating expenditures.

Unitywater considers these and other strategies will result in reduction of the number of kwh required to maintain the desired level of service for water supply and sewage treatment.

### 13.19.1. CHEMICAL EXPENDITURES

Unitywater is examining a number of alternatives to procure and possibly manufacture some of the chemicals on which it relies as inputs in the treatment of sewage.

Unitywater would be happy to discuss these with QCA on a commercial-in-confidence basis.

### 13.19.2. CORPORATE EXPENDITURES

New corporate functionality was required from 1 July 2010. Corporate expenditures for 2012-13 represent 7.4% of total operating expenditures. The largest contribution to corporate expenditure is salary and wages.

**Table 36** Forecast Corporate Expenditure (\$M)

Expenditure category \$M	Previous year estimate FY 2012	FY2012	FY2013	FY2014	FY2015
Salaries and wages	\$16.0M	\$17.0M	\$17.9M	\$18.4M	\$18.9M
Consultants and Contractors	\$5.3M	\$3.9M	\$10.7M	\$11.0M	\$11.4M
Insurance	\$2.0M	\$1.9M	\$2.1M	\$2.2M	\$2.2M
QCA Regulatory Fees	\$0.7M	\$0.8M	\$0.8M	\$0.8M	\$0.9M
Taxes and Fees	\$1.0M	\$0.6M	\$2.1M	\$2.1M	\$2.2M
Telco costs	\$1.5M	\$0.6M	\$0.4M	\$0.4M	\$0.4M
Legal Expenses	\$0.7M	\$0.9M	\$0.9M	\$0.9M	\$0.9M
Audit fees	\$0.6M	\$0.6M	\$0.5M	\$0.5M	\$0.5M
Property Expenses	\$0.1M	\$1.4M	\$1.1M	\$1.2M	\$1.2M
Other Materials and Services	\$4.1M	\$6.9M	\$1.5M	\$1.5M	\$1.4M
Total corporate expenditure	\$32.0M	\$34.6M	\$38.1M	\$39.1M	\$40.0M

Reduction in SLA costs reflects Unitywater becoming increasingly self sustaining and less reliant on some council ICT systems. Reductions in materials and services reflect the Board determined efficiency scope reductions.

### 13.20. SUBSTITUTION BETWEEN CAPEX AND OPEX

Unitywater supports the deferral of capital expenditure through the use of alternative solutions to address growth; renewal; improvement; or compliance. Unitywater, when considering options and alternatives to address a network constraint, include consideration of operating expenditure solutions; design alternatives; sequencing and sizing of augmentation stages; and comparison scenarios using a multi factor prioritisation tool in order to select the most appropriate alternative.

Unitywater recently embarked on one such project where, through joint workings with QUU, an innovative solution increased asset utilisation to provide lasting benefits to Unitywater customers by deferring STP augmentation at Brendale.

### 13.21. BRENDALE – OPERATING EXPENSE SOLUTION

Operating expenditure associated with the Brendale STP is one example where Unitywater is applying new approaches to meet demand for its services.

The original extended aeration plant at Brendale was commissioned in 1978 with a design capacity of 10,000 equivalent persons (EP). Brendale was upgraded in 1990 with Queensland's first biological nutrient reduction process to serve 20,000 EP. Brendale has been progressively upgraded and currently treats approximately 41,500 EP and is operating at or close to its treatment capacity.

Catchment growth is expected to continue to increase and by 2030, the Brendale STP will be serving 77,000 EP. Brendale releases treated waste water into the South Pine River and current licence conditions permit up to 50,000 EP loads into the river system. Increasing the load above 50,000 EP will require substantial augmentation of the treatment plant to meet current standard licence conditions for the total load. Such an augmentation may require capital intensive advanced water treatment technology and or a recycled water scheme. Odour plume may also be a factor, as land buffer zones are encroached by regional development.

The options assessment considered:

- Major augmentation of the treatment plant in a two stage approach;
- Interim upgrade and pumping of load to Murrumba Downs STP with a future augmentation of Brendale;
- Diversion of load to QUU for treatment at Luggage Point STP and an interim upgrade of Brendale. (Unitywater already transfers some sewage load to QUU from the Hills district to take advantage of geographical characteristics.

After considering a range of factors, Unitywater decided the best option was to construct a diversion pipeline to divert flow for treatment by QUU. Unitywater will have to pay a negotiated fee for this service but it defers substantial capital expenditure at Brendale that would have been required in 2011 to meet the growth and compliance with licence conditions discussed above. This option permits Brendale to defer capital expenditure until approximately 2016. The option deferred approximately \$65.5M in capital expenditure for between 5 and 9 years.

Brendale appears as a scope change adjustment to the operating forecasts in this submission with the first flow of load for treatment at Luggage Point to commence in June 2012.

### 13.22. BENCHMARK EFFICIENCY

Unitywater considers benchmarking between distributor-retailers in SEQ or other regions as problematic and prone to appropriate comparator identification error. Unitywater contests that its plant design, performance and operational circumstances and geographical location, with parts of the adjacent coastline protected in a highly sensitive marine park, present Unitywater with unique challenges that require its STPs to be operated on a more stringent set of licence conditions than would otherwise be the case.

### 13.23. RELATED PARTIES

Unitywater relied on participating councils for part provision of the following services in 2011-12:

- IT & Communications;
- Development Management and Charges;
- Customer Service; and
- Accommodation.

The number of services has been significantly reduced in 2012-13 to the following:

- Development Management and Charges; and
- Accommodation.





## 14. NON-REGULATED SERVICES

This section describes Unitywater's non-regulated services and provides information at an aggregate level about the revenue and expenditure relating to these services.

A non-regulated service is defined by the QCA as:

*'a service provided by an entity that is not required to satisfy any specified legal obligation or is provided by other service providers in a competitive market in which the business has no legal power to influence a customer's selection of the business as the service provider'.*

Unitywater's Board has made the strategic decision to only pursue development of non-regulated business opportunities on an opportunistic basis that reflects natural and logical extension to core business services. Currently Unitywater has three services that were transferred from the councils and are classified as non-regulated. These consist of laboratory services, private works and title transfer searches.

### 14.1. LABORATORY SERVICES

The laboratories owned and operated by Unitywater provide water testing and other related services to a number of external clients including SEQ Water, LinkWater and the participating councils.

Direct costs are identified and allocated to the Scientific Services Branch which operates the laboratories. Divisional and corporate support costs are also assigned to the laboratories in accordance with Unitywater's cost allocation method. The laboratory facilities also provide services to the drinking water, sewerage, trade waste and recycled water services provided by Unitywater. The proportion of laboratory costs attributable to these services has been identified and an internal charge is made against the core regulated services. The remaining costs are attributable to non-regulated services.

### 14.2. PRIVATE WORKS

Unitywater maintenance crews also provide 'private works services'. This involves the use of Unitywater resources (labour, materials and plant) to deliver works requested by private customers. An example would be moving a manhole on a customer's property at their request.

The direct costs attributable to each private works order is captured and divisional and corporate overheads are allocated in accordance with Unitywater's cost allocation method.

Private works orders are priced on application with a quote, including overheads, provided to the customer prior to commencement of the work.

### 14.3 TITLE TRANSFER SEARCHES

Title transfer services relate to the water and sewerage component of searches required for the transfer of property title. These searches identify charges paid or outstanding and other issues that may impact on the settlement process.

Costs are apportioned to this service in accordance with Unitywater's cost allocation method.

#### 14.4 FINANCIAL DETAILS

The tables below summarise operating revenue and costs assigned to non-regulated services as disclosed in the QCA's templates.

Capital expenditure details on non-regulated services are set out in Section 8.

**Table 37** Non-regulated services – aggregate financial details (\$M)

Non Regulated Services	FY2011	FY2012	FY2013	FY2014	FY2015
Revenue	\$5.3M	\$5.5M	\$4.9M	\$5.2M	\$5.5M
Operating expenses	\$6.7M	\$7.0M	\$4.6M	\$4.8M	\$5.1M
Net operating result	\$1.3M	\$1.5M	\$(0.4)M	\$(0.4)M	\$(0.4)M

**Table 38** Details of non-regulated services projected operating results for 2012-13 (\$M)

Non Regulated Services	Revenue	Operating Costs	Profit (Loss) From Activity
Laboratory Services	\$0.5M	\$0.5M	\$0.0M
Private Works	\$2.7M	\$2.7M	\$0.0M
Facilities Management	\$1.2M	\$1.2M	\$0.0M
Other	\$0.5M	\$0.5M	\$0.0M
Total non-regulated services income	\$4.9M	\$4.9M	\$0.0M