INTERIM PRICE MONITORING SUBMISSION - 2011/12

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

0229-01

Unitywater

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Mr E J Hall
Chief Executive Officer
Queensland Competition Authority
Brisbane QLD 4001

31 August 2011

Dear Mr Hall

South East Queensland (SEQ) Interim Price Monitoring Submission – 2011/12

Please find attached Unitywater's second Interim Price Monitoring Submission with indicative forecasts of regulated costs for the 2011/12, 2012/13 and 2013/14 financial years. In some instances, high level assumptions were necessary to complete the information requirement templates. In part, the assumptions were needed to accommodate the State Government's legislated CPI cap on local government distributor-retailers' residential and small business price rises for the next two years.

The cap on Unitywater's price increases will inevitably impact on returns to our two participating local authorities. Unitywater's returns to councils contribute towards the quality and availability of social infrastructure within the Sunshine Coast and Moreton Bay regions. In 2011/12 Unitywater expects revenue to be below the benchmark efficient Maximum Allowable Revenue (MAR), and that under (over) recovery will have implications for the organisation and its stakeholders. In recognition of this short term pricing constraint, Unitywater proposes a MAR Adjustment Transition Scheme (MAT scheme) which is intended to capture and annually index revenue under-recoveries relative to MAR until such time as Unitywater's actual revenues achieve MAR. These under (over) recoveries could then be recouped in accordance with a Queensland Competition Authority (QCA) approved price path over a period to be determined, avoiding price shocks for our customers.

In calculating MAR for the 2011/12, 2012/13 and 2013/14 financial years, Unitywater has applied the 9.35% weighted average cost of capital (WACC) as instructed by the Ministerial Direction to the QCA on 29 June 2011[1], despite our previously stated concerns regarding the estimate. Unitywater looks forward to participating in the QCA's WACC review.

In addition to the MAT Scheme, our submission also proposes a Capital Contributions Tax Adjustment (CCTA), which is intended to recognise the tax costs associated with cash contributions received from developers.

The State Government's legislated CPI price cap does not negate the need for significant investment in critical capital works to address growth, renewal and compliance issues in Unitywater's service area. Unitywater will continue to roll out investment in essential infrastructure

[1] QCA, File Ref: 389895, dated 8 July 2011; SEQ Price Monitoring

Unitywater

in the Moreton Bay and Sunshine Coast regions. We intend to increase our borrowings to fund these works and will determine an appropriate price path to recover the associated costs.

Unitywater operates its business with unique challenges in South East Queensland and is not directly comparable with either Queensland Urban Utilities (QUU) or Allconnex Water. Two material points of differentiation are:

1. Moreton Bay currents flow in a clockwise direction, from the western shoreline bringing nutrient-loaded waters to coastal areas adjacent to Unitywater's operating area. Consequently, the environmental discharge standards required of our sewage treatment plants are greater and more expensive; and
2. Population and connections per kilometre of pipe; sewage treatment plant or connections per pump station are higher in QUU's dominant greater Brisbane area, and Allconnex Water's Gold Coast area. As a result, Unitywater's ability to achieve medium term economies of scale in relation to its sewage treatment plants in terms of their design and treatment capacity is constrained. As is increasing the density of the network.

These differences will potentially have implications for the levels of Unitywater's capital and operating expenditure requirements over time and the appropriateness of benchmarking costs across SEQ distributor-retailers.

Unitywater is interested in facilitating discussion amongst stakeholders and regulators to consider a specialised water sector regulatory test in relation to network planning. The intention is to facilitate more innovative solutions to address network constraints and meet environmental standards. Unitywater has already considered demand management and local treatment, supply and operating cost solutions to respond to network constraints. However, the inclusion of non-network, non-Unitywater asset alternatives may provide the means for developing more cost-effective methods to improve the health of our waterways and address network constraints and other growth-related issues. The current practice of upgrading existing sewage treatment plants (STPs) to meet increasingly stringent environmental standards may be a most expensive option in some circumstances, which may not deliver the best environment and economic outcome for our customers.

Unitywater has achieved much since it commenced operations on 1 July 2010 and we remain committed to improving customer service, achieving operational efficiencies and providing high-quality, affordable and sustainable water supply and sewage treatment services to benefit our customers and the environment. The organisation will also continue to pursue innovation by supporting and participating in research and development into new and emerging technologies and investigating opportunities to partner with the private sector.

Unitywater would welcome any opportunity to discuss this submission or any other information requirements with the QCA. We hope the early submission of our regulatory asset base information was of assistance, and we look forward to working with the QCA over the interim price monitoring period.

Unitywater

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

Yours sincerely

[redacted]

Jonathan (Jon) P.C. Black
Chief Executive Officer

Members' Responsibility Statement

In the opinion of the Board Members of Unitywater:

a) The price monitoring information returns set out on pages 1 to 141 are drawn up so as to fairly represent, in accordance with the requirements of the SEQ Interim Price Monitoring Information Requirements issued by the QCA, ("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

Dated 25/08/2011

An extract of the Minutes of the Board Meeting that the above attestation was made is attached to the Chief Executive Officers cover letter accompanying this submission.

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 further supporting activities during its first year of operations to better serve its customers.

UNITYWATER'S 2011/12 PRICES AND REVENUES

Unitywater released its second pricing schedule for 2011/12 on 21 June 2011, capping its water and sewerage access price increases to a CPI-linked 3.6% for residential and small business customers in accordance with new price-capping State Government legislation (*Fairer Water Prices for SEQ Amendment Bill 2011*). In addition, Unitywater extended the application of the cap 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 16.5% in Moreton Bay and 25.2% 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 2011/12 ($)

Description	MBRC 2010/11	MBRC 2011/12	% Change	SCRC 2010/11	SCRC 2011/12	% Change
State Government bulk charges[1] (water consumption)	284.85	331.80	16.5	223.57	279.98	25.2
Unitywater Water usage charges [2]	29.35	30.38	CPI[3]	108.65	112.41	CPI
Fixed Water access charges	334.00	346.02	CPI	224.00	232.06	CPI
Fixed access charges Sewerage – standard	719.00	744.88	CPI	551.00	570.83	CPI

[1] Usage charges based on average kL/yr of 172.6 and 190.8 for Moreton Bay and Sunshine Coast regions respectively
[2] ibid
[3] CPI is defined as March-to-March Brisbane CPI of 3.6%

[redacted]

CAPITAL AND OPERATING EXPENDITURE

In its first 12 months of operations, Unitywater faced significant establishment challenges and adverse weather conditions, while still investing millions of dollars in infrastructure and embarking on new projects in the Moreton Bay and Sunshine Coast regions.

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.

Unfortunately, the need for this catch-up capital expenditure appears to have been overlooked by the State Government in its decision to impose a CPI price cap on distributor-retailers for 2011/12 and 2012/13.

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 $719.6M and incur $785.1M in operating costs and maintenance activities.

Unitywater is implementing a rigorous capital expenditure approval and assessment process, which has already lead to increased innovation and more cost effective solutions to meet growing demand. One example is the deferral of the Brendale STP augmentation, by Unitywater reaching an agreement with QUU to treat sewage from Unitywater's network at its treatment plants, rather than a long uneconomical pump to an already over-loaded STP. When fully operational in mid-2012, this sewage diversion will incur additional operating costs but has been able to defer this expensive capital expenditure for a number of years. This is an example of cooperation between distributor-retailers, and engineering planners finding innovative solutions to network constraints.

Unitywater welcomes the QCA and its consultants reviewing the proposed capital works and operating expenditure projects and programs detailed in this submission. Unitywater considers that forecasts beyond 1 July 2012 are calculated on a best endeavours basis as many business cases over that period are still being prepared. As such, the ultimate preferred solutions and costs are not known with the degree of certainty that would accompany a mature business. Unitywater suggests this is consistent with the commentary contained in the revised Ministerial Direction to the QCA to:

> *(f) consider the availability of information from the entity, their emerging capability to provide information and the transitional work required to integrate and establish the entities;*[4]

PRICE MONITORING FRAMEWORK

Unitywater is pleased the Minister for Energy and Water Utilities finalised the opening Regulatory Asset Base (RAB) as at 1 July 2010. This permits Unitywater to calculate a more accurate MAR for 2010/11. For 2010/11, the QCA has calculated an indicative under-recovery of $20.6M. Unitywater understands that this figure may vary as the RAB was an interim value at the time the QCA released its final decision.

[4] Ministerial Direction to the Queensland Competition Authority dated June 2011

[redacted]

Unitywater has applied a WACC of 9.35% as instructed in the Ministerial Directive, despite previously expressed concerns regarding this figure. While Unitywater looks forward to participating in the QCA-wide review of WACC, the scope and timing of this review remains unclear and Unitywater is uncertain whether there will be sufficient time to complete it, including adequate time for stakeholder consultation, prior to 1 March 2012.

Unitywater would encourage the QCA to consider recent National WACC reviews and recent Australian Competition Tribunal decisions in forming its discussion paper. Unitywater considers there to be significant scope for the QCA's WACC review to minimise replication of debate and expenditure, by agreeing on preliminary issues in the QCA's discussion paper and maintaining the focus on threshold issues.

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

- MAR 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 MAR[5]. 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.[6] The receipted value of the gifted assets and cash contributions will continue to be rolled into the RAB in accordance with the standard revenue offset method.

REVENUE

Unitywater set its 2011/12 prices in accordance with the State Government's CPI cap and previously announced tariff reform has been deferred. The estimated MAR for 2010/11 as calculated by the QCA in its final decision was found to be $392.9M ($194.4M for water and $198.5M for sewage transport and treatment) and Unitywater's prices under-recovered MAR by $20.6M.

Unitywater is proposing a MAT scheme to carry forward the 2010/11 under-recovery and any future under-recoveries on an annual indexed basis as a side constraint in its pricing formula. MAT scheme amounts will be carried forward until such time as Unitywater's prices meet MAR and in consideration of the local government Price Mitigation Plans (PMPs), required under the State Government's *Fairer Water Prices for SEQ Amendment Act 2011*. Unitywater will then review its approach to recovering the carried forward under (over) recoveries over a time period that avoids adverse price shocks to customers. Unitywater will maintain and report on the MAT scheme balance over the price monitoring period.

[5] 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.

[6] 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.

[redacted]

There is regulatory precedent for an under and over recovery scheme within the utility industry such as electricity. In the water industry the QCA has previously accepted a similar scheme in principle for the Gladstone Area Water Board. The scheme proposed in this submission is consistent with this scheme that the QCA has previously accepted.

Unitywater looks forward to discussing with the QCA implementation of the MAT scheme.

For this 2011/12 information return, Unitywater has estimated that after incorporating the State Government's CPI price cap on tariff prices, Unitywater revenue will under-recover costs by $43.0M (MAR $442.8M and revenue $399.8M 2011/12). Unitywater is conscious of moderating price increases for customers. This was reflected in its decision to under-recover in 2010/11, demonstrating that even before the CPI price cap was introduced, this was our intention.

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.

Unitywater's pricing policy in relation to tariff reform supported limiting any price changes where possible, until the QCA had published final pricing principles. However, it is understood that following the State Government's *Fairer Water Prices for SEQ Amendment Act 2011*, the QCA no longer intends to publish pricing principles. Under these circumstances, Unitywater has developed its own pricing principles, and has advised the councils to assist with the development of their PMPs.

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 Diagrams 1 (below) and 2 (overleaf):

Diagram 1 Water services – Forecast revenue compared to MAR

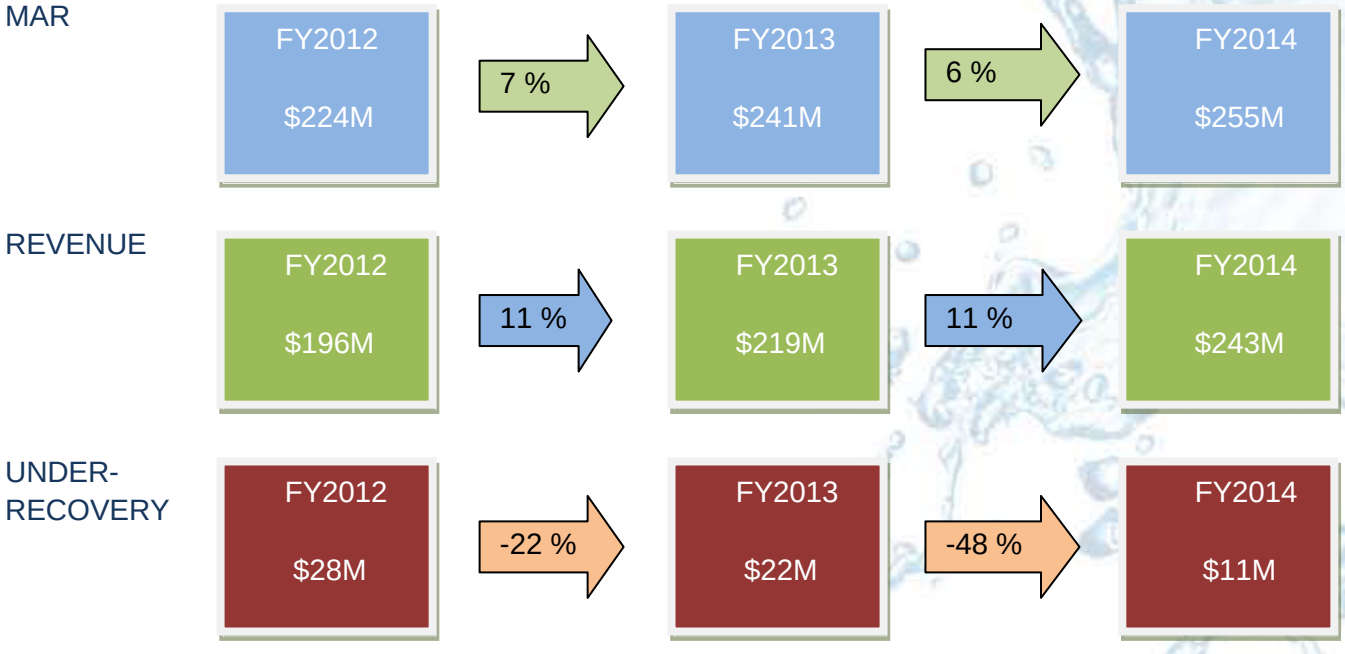
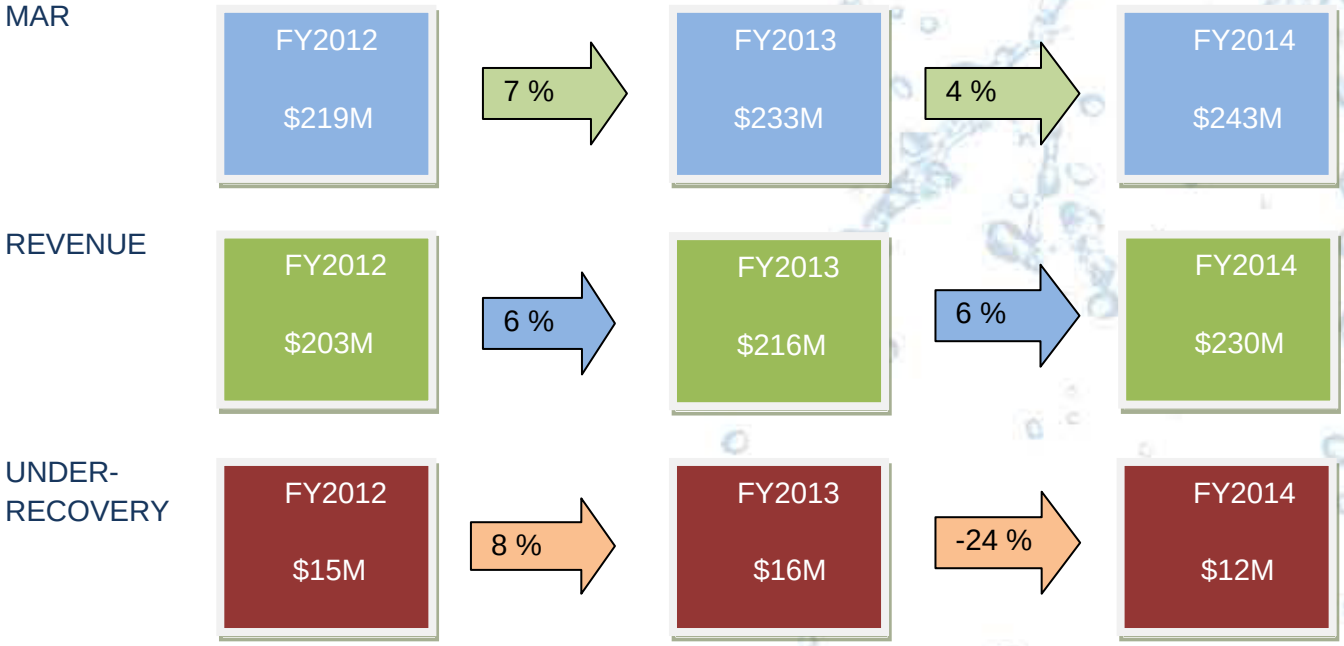


Diagram 2 Sewerage services – Forecast revenue compared to MAR



The forecast under-recoveries demonstrate that Unitywater's under-recovery over the three year forecast period is approximately $104.9M, 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 $125.5M 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 2011/12) to discuss the MAT scheme to record and carry forward MAR under (over) recoveries for possible recovery in future periods.

DEMAND FORECASTS

Water demand forecasts were referenced from the current customer databases and the population forecasts supplied by the Queensland Government's Office of Economic and Statistical Research within the Office of the Demography and Planning (DAP), formerly known as the Planning Information and Forecasting Unit (PIFU). Unitywater accepts the forecasts as materially accurate at the SEQ level but does not accept these forecasts are as informed at the individual council level and may not make appropriate adjustments for geospatial and time series information known at the regional local government level. Unitywater is developing its own demand forecast for the Moreton Bay and Sunshine Coast regions and proposes to use DAP based forecasts in the interim. The demand forecasts are set out in Table 2 (below).

Table 2 Demand Forecasts

Demand Forecasts	FY2011	FY2012	FY2013	FY2014
Drinking Water Volumes ML	46,735	46,000	46,938	48,028

Expected long-term demands are used to plan capital works programs as well as operational and maintenance strategies. Other important planning documents include State and council development

plans. The maximum likely demand level needs to be considered in these forecasts with an assumed probability of these figures being exceeded. Unitywater is continuing to refine its demand forecast methodology.

Demand is difficult to predict in the current environment with permanent water conservation measures being applied, a growing population and local residential investment in demand side management such as water tanks and local water reuse schemes. Unitywater has little control over water demand given the institutional settings for the SEQ Water Grid and the State Government's CPI cap preventing the use of full cost-reflective pricing to improve market signals of demand and supply.

REGULATORY ASSET BASE (RAB)

The opening RAB as at 1 July 2010 was approved on 30 May 2011[7], by the Minister for Energy and Water Utilities following an extensive review by the Queensland Water Commission. The methodology and details are discussed in Section 7 Regulatory Asset Base. Unitywater understands the QCA intends to review the value to calculate the starting RAB value for economic regulation purposes.

CAPITAL EXPENDITURE

Unitywater has forecast capital expenditure for this interim price monitoring submission to meet expected demand for water reticulation, trade waste, sewage treatment and recycled water; and to maintain the quality, reliability and security of supply of these services to our customers.

Unitywater's forecast capital expenditure by region and service for 2011/12 to 2013/14 is included in Table 3 (overleaf) which represents capital expenditure as capitalised (commissioned) in each respective council region and service.

[7] Hon Stepen Robertson MP Reference MO/11/772; CTS 04525/11; me/11/0159 regarding: Participation Agreement and Regulated Asset base calculations dated 30 May 2011

[redacted]

Table 3 Capital expenditure by region and service as capitalised[8]

As Capitalised By Region ($M)	Service	FY2011	FY2012	FY2013	FY2014
MBRC	Water	50.4	25.3	17.1	23.3
	Sewerage	132.9	179.9	63.8	27.2
	Non-regulated	-	-	-	-
	Total capital program	**183.4**	**205.2**	**81.0**	**50.4**
SCRC	Water	22.0	27.8	33.9	31.1
	Sewerage	41.3	35.7	59.8	194.3
	Non-regulated	-	0.2	-	-
	Total capital program	**63.3**	**63.7**	**93.8**	**225.5**
Unitywater	Water	72.4	53.1	51.1	54.4
	Sewerage	174.2	215.6	123.7	221.5
	Non-regulated	-	0.2	-	-
	Total capital program	**246.7**	**268.9**	**174.8**	**275.9**

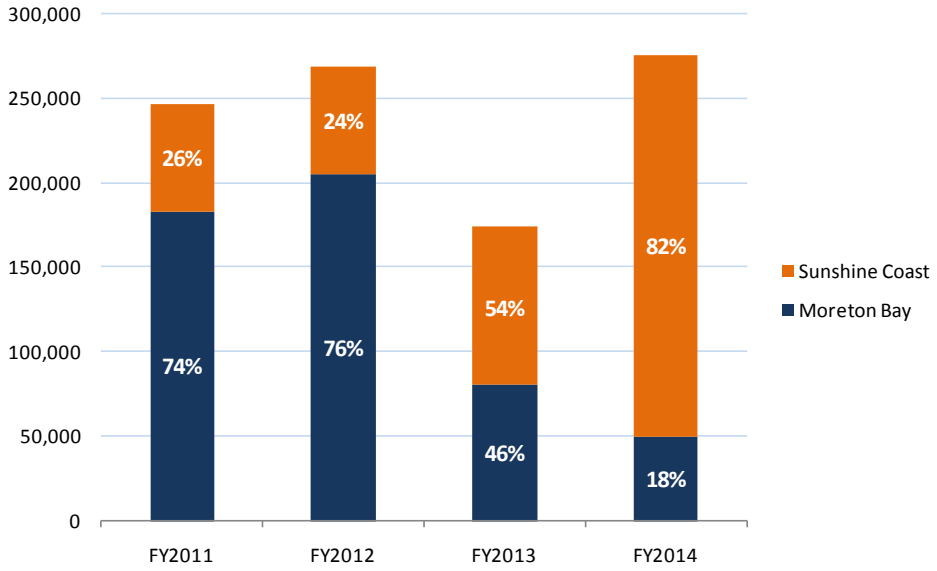
The majority of the commissioned expenditure between 2010/11 to 2011/12 occurs in the Moreton Bay region (75%). This is in contrast to the forecast expenditure from 2012/13 to 2013/14 where 71% of the expenditure is forecast to occur in the Sunshine Coast region, as illustrated in Figure 1 (overleaf).

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 spend that permits greater efficiencies in planning, procurement and delivery than would be available to a smaller business.

[8] Including developer provided assets

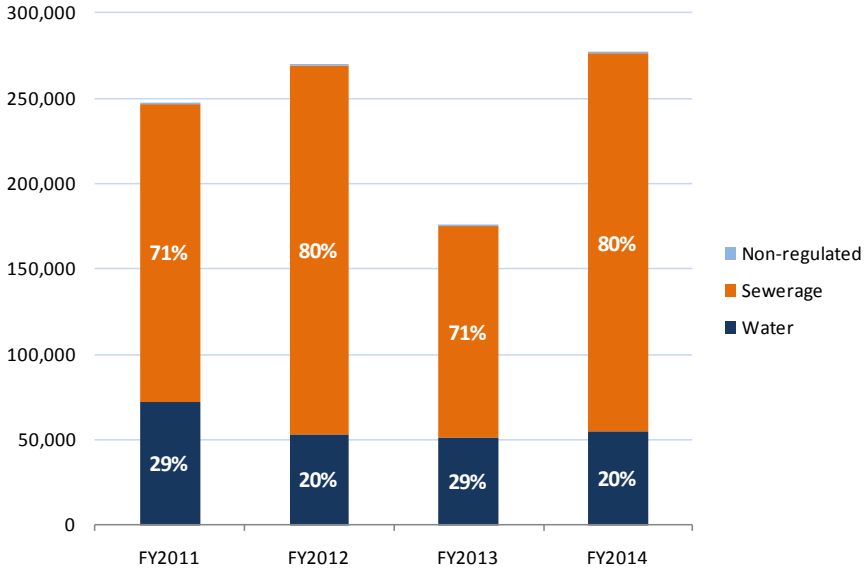
[redacted]

Figure 1 Total capital expenditure by region (2010/11–2013/14)



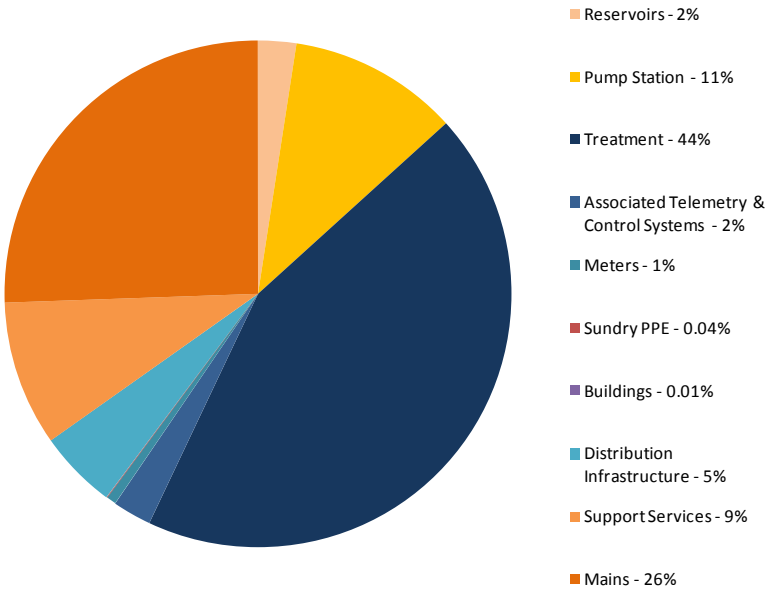
Across both regions wastewater services account for a larger portion of capital expenditure than water services. This is illustrated in Figure 2 (below) with 76% of total expenditure for the period relating to the provision of sewage treatment and trade waste treatment services.

Figure 2 Total capital program by service (2010/11–2013/14)



Section 8 provides more information on the capital expenditure program. The majority of expenditure for the period 2010/11 to 2013/14 will be on sewage treatment plants, to ensure compliance with State Government licence (EPA) obligations; mains and pump stations with 44%, 26% and 11% respectively. Figure 3 (overleaf) illustrates total capital expenditure by cost driver for the period 2010/11 to 2013/14.

Figure 3 Total capital program by cost driver (2010/11–2013/14)



Unitywater has classified its capital expenditure program for 2011/12 and outer years according to the drivers of growth, renewals, improvements and compliance as required by the QCA. Unitywater's program of work has been developed having regard to its capacity to deliver: based on past performance; availability of resources and contractors to perform the work; and taking into account increasing knowledge of the condition of its assets in service.

Significant investment will be directed to sewage treatment and pipeline network infrastructure. These projects are primarily growth-driven and reflect increasing demand for water and sewage treatment services in both regions.

Investment in new sewerage infrastructure for the Sunshine Coast is required due to new residential developments, increasing environmental compliance and capacity issues within the existing network. The three year capital program provides for the upgrade and augmentation of eight sewage treatment plants in the Sunshine Coast region representing a total investment of approximately $191.6M.

Other significant projects include upgrades and augmentations of six sewage treatment plants in the Moreton Bay region representing a further $47.9M investment.

Capital expenditure for 2011/12 was approved by the Unitywater Board as part of its overall budget approval process.

This process includes ongoing scrutiny of expenditure by a committee of the Board, established to monitor and review the capital expenditure program and its delivery, and ensure the program is consistent with Unitywater's strategic objectives.

The Capital Works Committee assists the Board to discharge its corporate governance responsibilities to exercise due care, diligence and skill in the approval of strategic capital works; annual capital works expenditure; and significant capital works commitments.

[redacted]

It also assists with compliance with regulatory principles and applicable licence conditions as applied by the relevant environmental regulator; and implementation of Unitywater's Business Sustainability Policy.

This committee meets monthly to consider progress against timelines and budget and makes decisions as required on variations or budget changes; it also approves expenditure above the CEO's delegation.

In addition, Unitywater has established an Asset Steering Committee to review and endorse investment decisions for Capital and Operations projects.

This committee reports to the Executive Management Team and has recently recommended endorsement of Unitywater's Capital Works Justification Process, advising that it would satisfy Unitywater's strategic and corporate objectives, and the requirements of the economic regulator.

Unitywater is currently establishing further governance structures to underpin the process of developing, assessing and approving capital expenditure forecasts. Unitywater would be pleased to discuss development of these processes with the QCA during this price monitoring review.

CONTRIBUTED, DONATED AND GIFTED ASSETS

The QCA's information requirement seeks the nomination of any date that Unitywater intends to adopt the asset offset method. For clarity, Unitywater has not nominated a date although this does not mean it will not choose to do so at some future time. Adopting asset offset would have short to medium-term adverse price consequences for customers. Unless the QCA has a different view, Unitywater will review this decision annually.

In this submission Unitywater used third quarter forecasts of year end values for contributed, donated and gifted assets. These have understated the actual year end amounts, Unitywater will provide QCA with updated 2010/11 values as soon as practicable.

RETURN ON CAPITAL

The Direction from the Minister requires the QCA to use a 9.35% weighted average cost of capital (WACC) for 2011/12 and 2012/13 price monitoring. Unitywater has applied the WACC as directed.

OPERATING COSTS

Unitywater has just completed its first year of operations and has developed new corporate and retail capabilities while maintaining service continuity. Operating costs for 2010/11 represent progress toward business as usual costs as well as one-off costs associated with bringing the business together such as systems and business integration activities. Table 4 (overleaf) shows the forecast operating expenditure by year and cost category as defined by the QCA.

[redacted]

Table 4 Forecast Operating Expenditure

Expenditure category ($M)	Previous year estimate FY2011	FY2011	FY2012	FY2013	FY2014	$ change FY2011 to FY2012	% change FY2011 to FY2012	Contribution proportion of total expenditure % FY2012
Bulk water costs	75.3	69.4	83.7	100.7	119.1	14.3	20.6	35.1
Chemicals expenditure	5.3	4.1	4.9	5.1	5.4	0.8	19.5	2.1
Contractor expenses	31.0	21.1	18.7	26.6	27.7	(2.4)	(11.4)	7.8
Corporate expenditure	36.5	30.9	32.0	31.9	31.2	1.1	3.6	13.4
Electricity charges	7.6	6.1	6.9	7.5	8.2	0.8	13.1	2.9
Employee expenses	51.0	49.4	58.9	60.2	60.8	9.5	19.2	24.7
Environmental licence or regulatory fees	0.5	0.5	0.4	0.4	0.4	(0.1)	(20.0)	0.2
Non recurrent expenditure	8.3	6.0	9.3	7.4	5.6	3.3	55.0	3.9
Other materials and services	14.3	18.3	19.4	19.8	19.2	1.1	6.0	8.1
Sludge handling costs	4.3	3.7	4.3	4.5	4.8	0.6	16.2	1.8
Total	234.2	209.5	238.5	264.1	282.4	29.0	13.8	100.0

Unitywater suggests that the reduction in contractor expenses reflects Unitywater's efforts through revised corporate governance and approval processes implemented by the Board; Capital Works Committee and the Asset Steering Committee to monitor and review projects, programs and expenditure. The reduced capital expenditure which is being identified through the governance processes has resulted in a reduction in actual and budgeted contractor expenses.

The employee expenditure reflects Unitywater becoming increasingly self-sustaining and less reliant on service level agreements with councils for some ICT systems. Some functions continue to be identified where those types of skills and staff were not transferred from council to Unitywater, which gives rise to recruitment. Unitywater is experiencing a labour attrition rate well below the average rate experienced in the non-mining sector of the economy.

EMPLOYEE EXPENDITURE

Unitywater's employees are covered by the *SEQ Distribution and Retail Water Reform: Workforce Framework 2009* (the Workforce Framework) which protects 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 expires 30 June 2013.

The Workforce Framework ensures 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

[redacted]

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 that workers' entitlements and terms and conditions of employment will be protected.

Unitywater is adhering to these objectives and therefore considers that the Workforce Framework does not support natural attrition as a source of efficiency. Moreover, 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 self-sustaining and less reliant on service level agreements with councils for some ICT systems.

That said, even within the constraints of the Workforce Framework, Unitywater has made significant progress toward identifying efficiencies. For example, the next Enterprise Bargaining Agreement (EBA) proposes 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 (ie same work/same pay).

In addition to the constraints of the Framework, the impact of the two speed economy on the national water industry means that Unitywater is not currently experiencing staff turnover in the areas where work can be reallocated. Unitywater is experiencing a labour attrition rate well below the average rate experienced in the non-mining sector of the economy. However, as a matter of normal business practice, Unitywater is undertaking an audit of its workforce that includes consideration of current roles, future role needs, and the training and development needs of its workforce. Over time, this will inform workforce planning and management to realise Unitywater's strategic goals of proud, productive people and sustainable value and growth.

[redacted]

VERSION CONTROL

Unitywater version control, the table below indicates the log and version changes.

DATE	VERSION NUMBER	NATURE OF VERSION PROGRESSION
27/6/2011	V1.0	Original draft document including core sections
25/08/2011	V1.7	Unitywater Board Approved

TABLE OF CONTENTS

[redacted]

1. INTRODUCTION

Unitywater was established on 1 July 2010 under the South-East Queensland Water (Distribution and Retail Restructuring) Act 2009 to assume the regional water supply, sewerage services and retail responsibilities previously held by the Moreton Bay and Sunshine Coast Regional Councils. We currently provide water and sewerage services to a population of around 713,214 residents across an area of 5,138 km^2. We manage the supply of water and sewerage service accounts for approximately 270,000 properties in our region. Our infrastructure assets include:

- 18 sewage treatment plants (STP's);
- 2 advanced water treatment plants;
- 5,609 kilometres of water reticulation mains pipeline;
- 5,312 kilometres of sewerage mains pipeline;
- 852 pump stations; and
- 104 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 and sewerage services to its customers and delivers positive environmental outcomes for the region.

Unitywater's two participating councils receive returns generated from the provision of those services in accordance with the Participation Agreement. Those returns to councils contribute towards the quality and availability of social infrastructure within the Sunshine Coast and Moreton Bay regions.

1.1 REGULATORY PRICE MONITORING

The Premier and Treasurer of Queensland referred the monopoly distribution and retail water and sewage treatment activities of Unitywater to the QCA, for price monitoring for the period 1 July 2010 to 30 June 2013 inclusive.

In June 2011, the State Government passed legislation applying a CPI price cap to the distributor-retailer component of water and sewerage prices for certain customer groups. However, the CPI price cap does not apply to bulk water and Unitywater is required by legislation to pass on bulk water price increases to its customers in full. Unitywater has applied the cap to its prices (residential and business customers irrespective of annual usage[9]) for 2011/12.

The 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 refined the instructions to the QCA to take into consideration the CPI price cap legislation.

The QCA's 2010/11 price monitoring review concluded there was no evidence of an exercise of monopoly power and that Unitywater under-recovered its Maximum Allowable Revenue (MAR) by approximately $20.6M.[10]

[9] Unitywater will review annually the large business customers price rises as part of its pricing and tariff reform process
[10] QCA, Final Report SEQ Interim Price Monitoring Part A – Overview March 2011, pi

For the 2011/12 price monitoring review the QCA published information requirements for Unitywater to complete, in the form of the *SEQ Interim Price Monitoring Information Requirements for 2011/12* (the information requirement), and a suite of spreadsheet templates.[11] This document and the completed templates forms Unitywater's response to the information requirement and is our second interim price monitoring submission to the QCA.

1.2 UNITYWATER SERVICES AND FUNCTIONS

Within its geographical area, Unitywater:

- Provides customers with drinking-quality water;
- Collects and treats sewage and commercial trade waste for disposal as environmentally safe wastewater into our rivers and ultimately Moreton Bay;
- Reticulates recycled water to various commercial and residential customers;
- Operates and maintains the infrastructure in its water and sewerage systems;
- Plans and delivers new infrastructure to maintain and meet customer growth and service standards placed on the networks and stricter environmental standards as older sewage treatment plants are upgraded to meet modern standards;
- Contributes toward beneficial environmental outcomes for rivers and beaches throughout the Sunshine Coast and Moreton Bay regions that support tourism and recreational pursuits;
- Contributes to positive environmental outcomes in the ecosystems within Moreton Bay Marine Park and Pumicestone Passage by ensuring that wastewater returned to the environment contributes towards healthier waterways, estuaries, and Moreton Bay;
- Provides 24 hour emergency response service; and
- Manages customer accounts including meter reading and replacement, customer billing and customer service.

1.3 CHARACTERISTICS OF UNITYWATER'S SERVICE AREA

Unitywater's service area spans 5,138 square kilometres, with an estimated residential population of 713,214[12] at 30 June 2010 which represents approximately 15.8%[13] of Queensland's total population. Population estimates are forecasting significant growth in our customer base over the next 20 years, with predictions this figure will increase to 807,462 residents by 2016 and 1,041,347 residents by 2031. This represents an expected population growth of 42.9% over the next two decades. These are the most recent estimates from the Office of Economic and Statistical Research (OESR) published in May 2011. However, due to time lags, the capital and operating expenditure programs and the demand forecasts detailed in this submission are based on slightly lower, published population estimates.

Unitywater was formed in an environment of growth in demand and expansion of the service area. When assets were transferred from the participating councils to Unitywater, we received a portfolio of assets, of varying operational capacities, technologies and performance.

[11] QCA, file reference 389895, dated 8 July 2011; SEQ Price Monitoring; regarding Amended Ministers' Direction Notice and SEQ Interim Price Monitoring Information requirements for 2011/12

[12] Office of Economic and Statistical Research (OESR), Queensland Treasury, Population and housing profile May 2011 for Moreton Bay and Sunshine Coast Regional Councils.

[13] OESR, Queensland Treasury Information Brief Australian Demographic Statistics June Quarter 2010 ABS 3101.0 Queensland population estimate 4,516,361.

[redacted]

Unitywater is examining reconfiguring its network of pipes, pumps and treatment plants to reduce the cost per litre of treated sewage and will endeavour to optimise utilisation of infrastructure in order to defer augmentations within our operational area where prudent. The Brendale STP capital expenditure deferral, by diverting sewage to Queensland Urban Utilities' STP facility at Luggage Point, is one example of network optimisation and cooperation between distributor-retailers to identify cost efficiencies to benefit our customers and the environment.

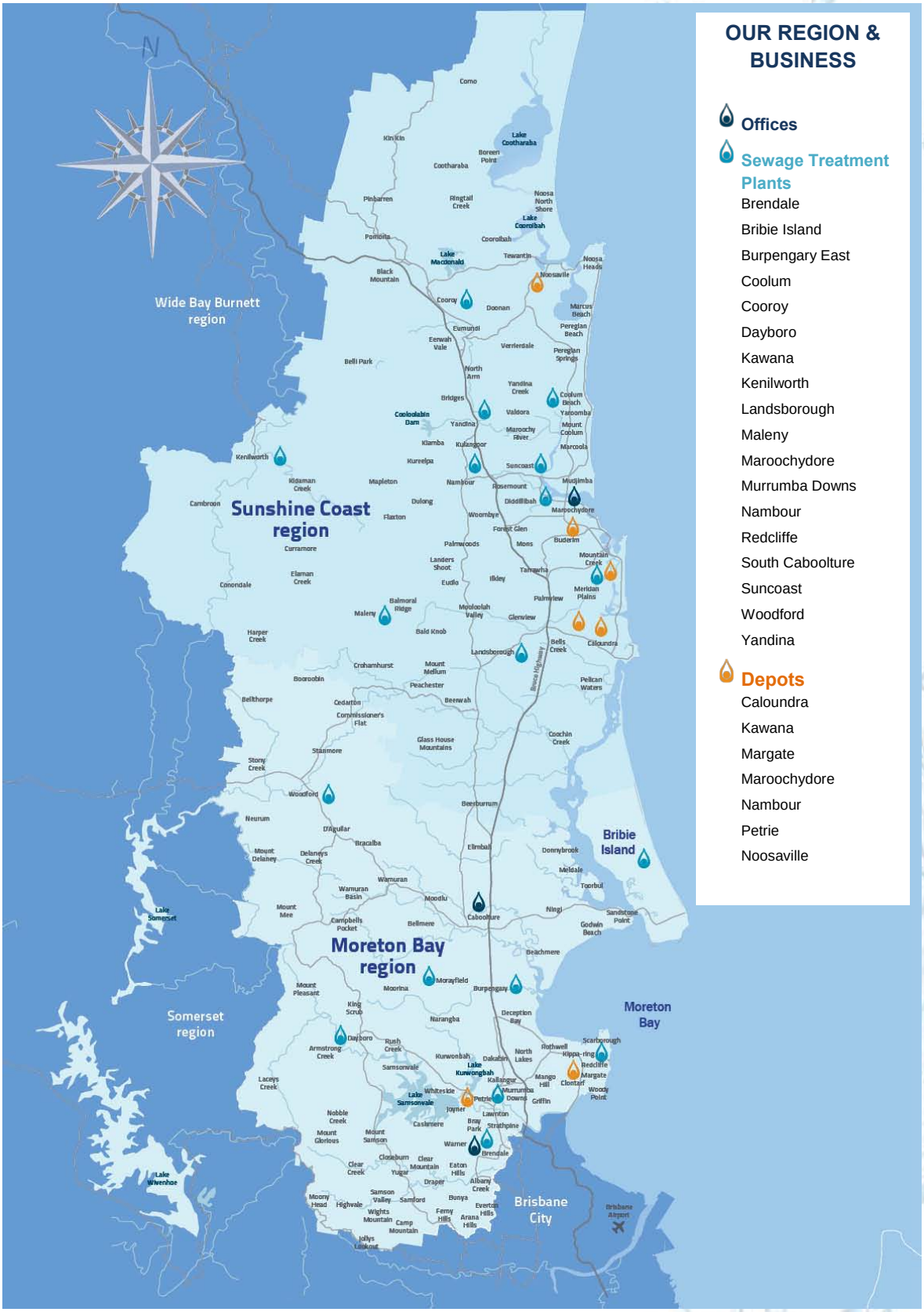
Diagram 3 (below) shows some of the water catchments across Unitywater's 5,138 km^2 service area[14], followed by Diagram 4 (overleaf) that shows the Unitywater service area.[15] Most of the rivers in Unitywater's service area flow into the Moreton Bay and most of the service area coastline is within the Moreton Bay Marine Park. The Moreton Bay Marine Park has varying levels of environmental sensitivity according to the health of the waterways, ecosystem and other environment factors.

Diagram 3 Water catchments

[14] Note water catchments are different in size, shape and customers to sewer catchments.
[15] Source: Healthy Waterways Annual Report 2010.

[redacted]

Diagram 4 Unitywater 5,138 km^2 service area

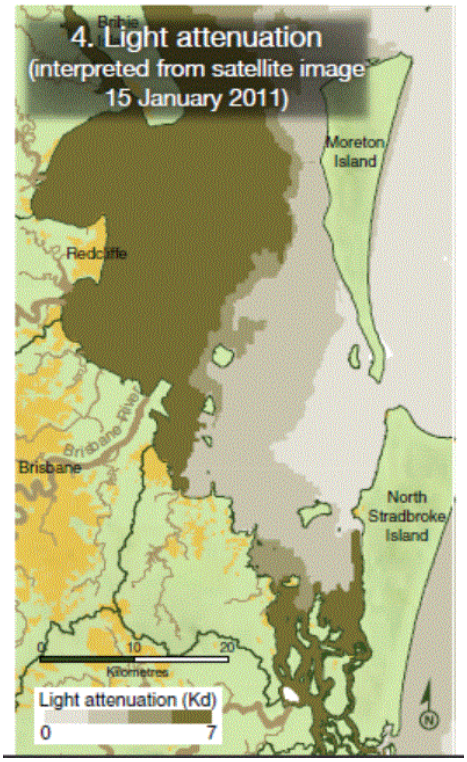


1.4 CHALLENGES

Unitywater operates much of its network within a unique hydrologic cycle,[16] bay currents that are a function of the East Australian current; and the Moreton Bay islands' and river outflows. Unitywater's unique geographic 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 the majority of Unitywater's service area coastline.

The natural currents of Moreton Bay are influenced by waters from the East Australian current deflecting off Moreton Island into Moreton Bay and influencing the water to move in a clockwise direction. This means that outflows and pollutants from Brisbane River hug the coast and plume northward toward coastline adjacent to Unitywater's service area.[17] Diagram 5 (below) vividly demonstrates the January 2011 flood plume as it moved to the northern sections of Moreton Bay and covered much of Unitywater's service area coastline. This supports other data suggesting a clockwise movement of water in Moreton Bay.

Diagram 5 January 2011 Flood Plume[18]



Pollutant build up is compounded by water catchment infrastructure that has reduced the Pine River system's ability to flush and renew its river mouth and hence assist to clear Moreton Bay. This results in nutrient build-up in the river that impacts on the river's health and makes STP augmentations, obtaining operating licences and complying with licence conditions more complex and expensive.

[16] Hydrologic cycle is an application of hydrology; being the study of the movement, distribution, and quality of water, within a geographical area

[17] 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

[18] ibid

[redacted]

Unitywater suggests there is a law of diminishing returns that applies to STP augmentation and stricter licence conditions, and that investing in potential alternative nutrient or pollutant reduction initiatives may achieve greater economic efficiency and environmentally beneficial. Whilst growth may require high volume STP augmentations, river systems may benefit more from maintaining STP licence conditions at the current environmental standard and including alternative non-network river system nutrient removal.

Unitywater submits that coordinated and open discussions are required between and among a range of regulators, instrumentalities and departments to achieve alignment of policy objectives and more cost effective healthy waterways.

Identifying appropriate alternatives and workable solutions requires cross-regulator cooperation and discussion. Unitywater would welcome the opportunity to facilitate such a discussion on the points raised in the next section, and to assist the QCA with preparation of a discussion paper on developing a specialised water sector regulatory 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
- Alternative pollutant, sediment or nutrient reduction within a catchment.

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 consider a facilitated workshop to discuss developing a regulatory test for non-network investments that may support initiatives such as nutrient trading within a particular catchment area, that take into account specific regional circumstances.

1.5 STAKEHOLDER CO-ORDINATION FOR HEALTHY WATERWAYS

Unitywater has developed a plan to engage various regulators and affected parties such as local councils, distributor-retailers, Wide Bay Water, Department of Environment and Resource Management (DERM), Queensland Water Commission (QWC) and the other Water Grid Participants to seek collaborative and cost effective solutions for maximising water quality improvement and achieving healthy waterways.

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. In our view, 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.

Another suggestion is for a specialised regulatory test to be developed to encourage investment in non-network alternatives to improve the health of the waterways in addition to STP augmentation or recertification or deemed compliance as required. Unitywater suggests competing government requirements and policies are being implemented without full consideration of least-cost options and the impact on customers being able to afford the investment.

One example is to accredit future STP augmentations to a weighted average wastewater environmental standard in preference to, reaccrediting the entire STP throughput to the same new standard or deemed compliance. Through coordination of economics and environmental controls, appropriate mechanisms can be introduced to incentivise least cost solutions, and in some instances these will be non-network alternatives rather than mandated acceptance of STP compliance capital expenditure.

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.

The SEQ population forecasts to 2031 recently published by the Office of Economic and Statistical Research also point to an increasing need for stakeholder co-ordination to identify more cost effective alternatives than ongoing STP augmentation and tighter licence conditions.[19]

1.6 POST INTERIM PRICE MONITORING PERIOD

Unitywater is establishing systems and preparing for the post interim price monitoring period beyond 2012/13. Unitywater has taken the following actions, such as:

- Reducing its reliance on council systems and resources to the point where independent resourcing will be achieved prior to the end of 2012. Unitywater has implemented its own finance and payroll systems; transitioned to its own call centre arrangements; is significantly advanced in its work to unify the existing ICT networks and hardware; and progressing projects that will secure its customer and billing systems and processes, and consolidate its asset management system;
- Consolidating its operational field services to take advantage of economies of scale resulting from the merger of two separate council businesses;
- Structuring its financial accounts to align with the QCA's data requirements under the interim price monitoring regime;
- Implementing governance processes to establish need, prudency, efficiency and deliverability of capital and operating programs, including a dedicated sub-committee of the Board to review expenditure and approve variations;
- Reviewing its suite of tools, processes and methodologies to support the capital and operating expenditure projects and programs;

[19] Office of Economic and Statistical Research, Queensland Treasury; population and housing profile Moreton Bay Regional Council and Sunshine Coast Regional Council, May 2011

[redacted]

- Developing internal performance indicators and systems of measurement including a pilot dashboard report generated on a monthly basis; and
- Developed detailed cost allocation methodology by service and region.

The strategy setting activities of the Board influence the future direction of Unitywater. This includes resourcing arrangements, prioritisation of activities, asset management and development and delivery of its capital and operating expenditure programs. The Board has made it a priority to drive efficiencies to ensure Unitywater is positioned to meet customer requirements at a sustainable price. The Board recognises that Unitywater's strategy must complement its customer needs and regulatory environment. Unitywater's future revenues are dependent on a solid understanding of customer needs, demand and the effectiveness of its customer and regulatory strategy.

1.7 UNITYWATER STRATEGIC PLAN 2010-2015

As an emerging organisation, Unitywater's Strategic Plan was developed through detailed consideration of major external influences and a thorough review of our internal capabilities and strategic risks. Our goal is to be a sustainable, industry-leading, community and customer-oriented water and allied services business. As required by *Unitywater's Participation Agreement* and the accompanying *Statement of Obligations*, Unitywater's Strategic Plan will guide our progress over the next five years, through a three phase approach. This plan is illustrated in Diagram 6 (overleaf).

In '*Phase 1 – Establishing Solid Foundations'*, we will continue to establish our business as an accountable and responsible entity, by focussing on delivering high quality services to our customers.

In '*Phase 2 – Ensuring The Core Business is Economically Sustainable'*, we will consolidate and integrate the regional areas of our business to provide high quality services to our customers in the most efficient and cost-effective manner.

Finally in *'Phase 3 – Growing the Business'*, we will begin to harvest the benefits arising from a maturing business through expansion and increasing efficiencies by leveraging the advantages afforded by technology and new business opportunities to deliver further improvements in service to our customers and sustainable returns to the participant councils. Future versions of the Strategic Plan will also consider potential impacts over the next 30 years and the SEQ Regional Plan.

Successful execution of the strategies and initiatives contained in this plan for 2010 to 2015 will ensure Unitywater becomes an organisation staffed by proud productive people, working collaboratively in an integrated whole-of-region business to ensure customer satisfaction, and realise sustainable value and growth for our stakeholders.

[redacted]

Diagram 6 Unitywater's Strategic plan 2010-2015

Unitywater

Unitywater Strategic Plan 2010-2015

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

Integrated Whole-of-Region Business
- Deliver water supply and sewerage services
- Consolidate operations
- Integrate ICT systems

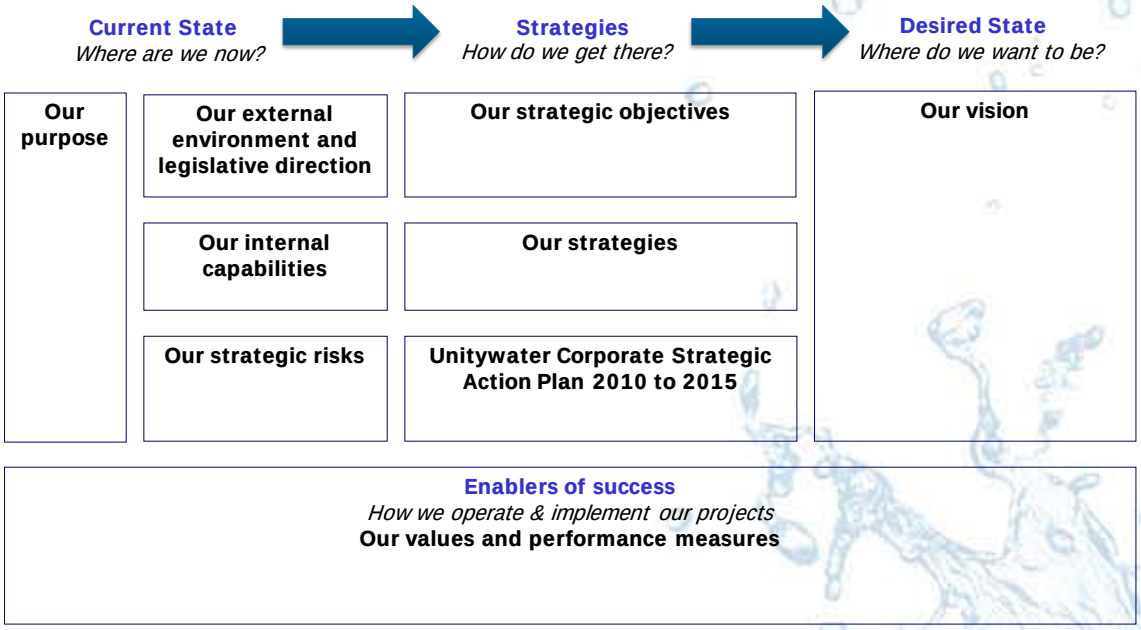
Proud, Productive People
- Zero Harm
- Develop a flexible and skilled workforce
- Foster a commercial culture

Sustainable Value and Growth
- Drive efficiencies
- Innovatively sustain our environment
- Seek new business opportunities

[redacted]

The development of our inaugural strategic plan is reflected in Diagram 7 (below). We began by understanding our purpose. Next, information relating to our external environment, internal capabilities, strategic risks and legislative direction were analysed. The plan sets out our five year vision, our strategic objectives and the strategies to achieve each of these objectives. A comprehensive list of initiatives for the next five years was developed and collated as an action plan to allow us to deliver on our commitment to our customers and the communities we serve. Underpinning the framework are our organisational values and measures for each strategy to enable us to track our progress towards our objectives and longer-term vision.

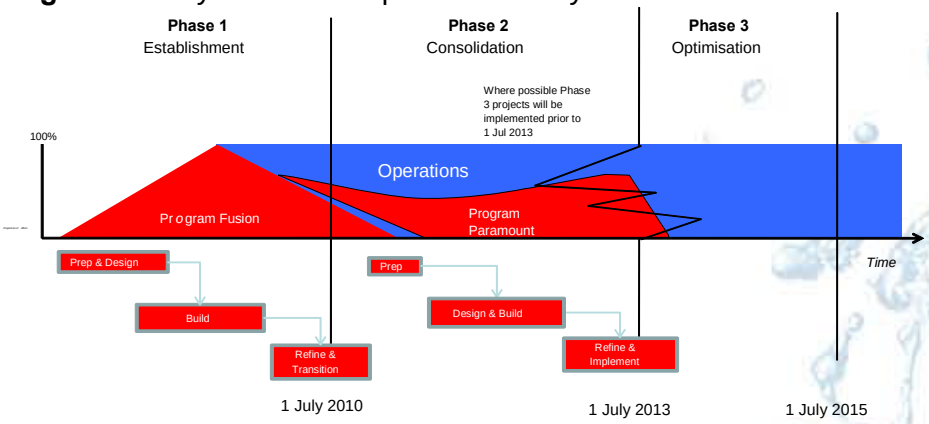
Diagram 7 Development stages of Unitywater's Strategic Plan



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 8 (below).

Diagram 8 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 is to identify opportunities for efficiencies and implement the systems and processes needed for a mature business. The program is investing in the 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; and
- Development of a Competency Framework.

Program Paramount will provide the capabilities upon 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 some 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.

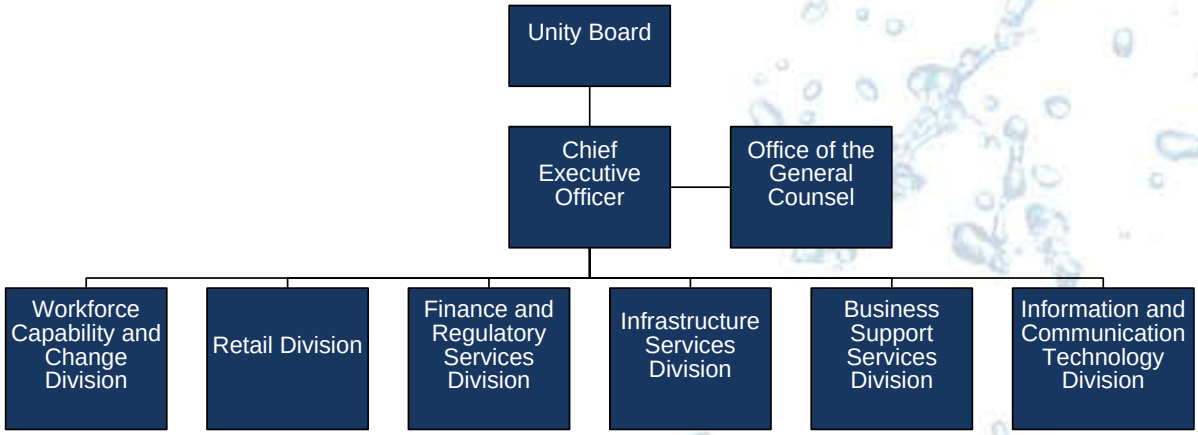
The final phase reflects activities and the transition towards a fully developed business, including refinement and optimisation of business systems and processes, with an aim to be a best practice provider of water reticulation, sewage and trade waste treatment services.

1.9 UNITYWATER ORGANISATIONAL STRUCTURE

The budget approved by Unitywater's Board for 2011/12 reflects the organisational structure in Diagram 9 (overleaf).

[redacted]

Diagram 9 Unitywater Divisional Structure



1.10 INTERIM REGULATORY FRAMEWORK

The regulatory framework is evolving and uncertain, and Unitywater is proposing a typical regulatory under (over) recovery scheme. Unitywater proposes MAT scheme to capture under (over) recoveries of MAR to carry that amount forward 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,[20] that introduced an additional constraint by CPI-capping price rises for the distributor-retailer portion of charges for water and sewerage services supplied to residential and small business customers. The CPI measure will use the 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 increase by 16.5% in Moreton Bay and 25.2% on the Sunshine Coast in 2011/12.

Unitywater implemented the CPI price cap on its 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) due to the billing complexity of implementing the State Government's business customer segmentation based on 100 kL of water usage per year. Unitywater may reconsider this approach in 2012/13 if its future billing system permits such segmentation.

The State Government legislation stated that the CPI price cap would not be affected by a rebate or subsidy change in any local government region for the 2011/12 or the 2012/13 financial years. Moreton Bay Regional Council has committed to continue its water rebate to customers and is the only council in Queensland that provides water subsidies to their 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 both the Moreton Bay and

[20] Fairer water prices for SEQ Amendment Bill 2011, Subdivision 2 Caps.

[redacted]

Sunshine Coast regions. Unitywater will borrow to fund essential infrastructure and determine a price path to recover the cost in future periods.

The additional funding costs imposed by the need for this new infrastructure are not able to be recovered from customers as a result of the CPI price cap. The price cap was applied universally and the need for this additional infrastructure and resultant capital expenditure was not taken into account by the State Government.

1.12 PRICE MITIGATION PLANS

The State Government legislation introduced in June 2011[21], also introduced a requirement for councils to publish PMPs detailing how they propose to mitigate the impact of price rises after the CPI-capped period ends on 30 June 2013.

The legislation requires an initial PMP to be published by 1 September 2011 and a final PMP by 1 March 2013. The final PMP must provide the final price path for water and sewerage services provided by the distributor-retailer for the period from 1 July 2013 to 30 June 2019.

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 not limited in terms of flexibility but they are required to include:

- The price path for the introduction of increases in charges that moderates the impact of these increases on customers;
- The policies the participating local government intends to adopt to help particular customers;
- How the community will be kept informed about the increases; and
- The extent to which Unitywater's profits paid to participating local governments are applied to provide subsidies or rebates to users of water or sewerage services.

The final price path published by 1 March 2013 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 assist with preparation of their PMP's.

Unitywater considers that under or over recoveries of MAR can occur during the CPI price cap period; during the term of the price mitigation plans or after the conclusion of the price mitigation plans. Unitywater is proposing a MAT scheme to capture and index annually under (over) recoveries for future recovery or return to customers. The MAT Scheme which is discussed further in Section 4 of this submission.

[21] Fairer water prices for SEQ Amendment Bill 2011, Part 2 Participating local government price mitigation documents.

1.13 FUTURE PRICING

Unitywater will consider future pricing implications in consultation with the QCA. These will need to be adjusted with regard to the PMPs when released in March 2013. In general terms, Unitywater considers that to detail a side constraint would necessitate addressing any MAT scheme under (over) recovery either through:

- An under (over) recovery mechanism; and/or
- Community service obligation payment or alternative local government financial arrangement.

Unitywater considers the MAT scheme in Section 4 may mitigate the necessity for further side constraints.

1.14 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 and systems to improve operational performance; invest to meet stricter environmental controls on wastewater releases; invest to address customer growth; and invest to meet required service standards.

Unitywater is addressing these matters as well as concurrent legacy issues associated with under investment in assets, tariff structures, resources, systems, processes and supplier contracts received from the previous council owners.

Unitywater, through its gateway expenditure approval processes, will continue to challenge and assess the prudency, efficiency and delivery method of expenditure required to maintain the existing network or to meet new network demands required due to customer growth, service standards or environmental requirements. However, a significant level of capital expenditure is still required due to the inherited network not being sufficient to meet current or future demands.

Unitywater has enjoyed early success in deferring and reducing capital and operating expenditure. Unitywater is currently developing its Netserv Plan[22] and is likely to continue to find innovative ways to address network constraints, environmental issues and customer growth across its region. During the 2010/11 price monitoring review, Unitywater identified $50.0M in capital expenditure deferrals that were voluntarily submitted to the QCA.

Within Unitywater, many systems and processes that would be typical of an established business are under development, being implemented or have been introduced but require time and data before these benefits can be realised. For example, Unitywater is implementing a single asset management system that will better inform capital expenditure planning and just in time maintenance. One of the benefits of this undertaking is the reduction of unplanned asset

[22] 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).

outages, resulting from the enhanced ability to better analyse condition and performance data. Another benefit will be improved planning to carry out preventative asset maintenance and identification of asset renewals.

Unitywater's relatively early stage of development has implications for pricing and this information return. For example, it is difficult to establish a MAR with the precision that would normally occur for a mature regulated business as the inherited operating methods in the business are being challenged and new processes introduced.

Several factors that influence the opening RAB were only finalised by the QWC and the Minister in June 2011. There remain some residual asset issues such as asset lives[23] that require an approach to be implemented during 2011/12. Following finalisation of the asset lives, Unitywater will be in a position to finalise its RAB value and the under (over) recovery eligible to be credited to the MAT scheme for the 2010/11 year.

The price monitoring framework is information intensive and, relies on information obtained from Unitywater's 2011/12 budget process undertaken with less than a full year of operations on which to develop forecasts. Unitywater considers that there remain future opportunities to reduce expenditure through innovative practices, new technology and network optimisation.

Unitywater submits that the 2010/11 year was an extraordinary year in terms of weather patterns, with the change from El Niño to La Nina and the impact of the Queensland floods. The floods' direct impact on, and costs to Unitywater were not material; however there were delays returning to normal operations, maintenance and capital programs of work.

Unitywater's forecasts in this submission are based on best estimates; however they are likely to change as Unitywater gathers more operational information and becomes more familiar with the performance and condition of its assets in service. Unitywater considers the details of the information constraints and data limitations in general to be:

- An absence of some statutory account information, particularly for balance sheet or cash flow statements as these were not prepared discretely for councils' water and sewerage businesses;
- The disparate accounting treatment and level of cost disaggregation for amalgamating councils, particularly for 2008/09. This is partly attributable to different classifications within the councils' water and sewerage businesses under full cost pricing principles. Generally for those councils where the business met the threshold criteria for a type 2 business (Local Government Act requirement), separate accounts existed for revenue, operating costs and capital projects. For those councils which did not need to report water and sewerage as a business activity, minimal separate information was collated;
- Historic water demand data, particularly for 2008/09; and
- Details for the 2010/11 year which are generally based on estimates (using Unitywater's third quarter review forecasts) as final year-end data was not available within the time constraints to submit this interim price monitoring submission to the QCA by 31 August 2011. The forecast year-end position could differ from the actual position, once finalised

[23] Unitywater had its asset lives reviewed by consultant engineers Cardno and adopted the new standard lives for new assets. In limited circumstances an asset category did not map to the Cardno categories. As an interim assumption Unitywater has applied a two year remaining life assumption for these assets (approximately $15M).

[redacted]

and audited by the Queensland Audit Office. Unitywater will update this material when it is finalised and available, expected to be late October 2011[24].

[24] Unitywater is aware and has advised the QCA that capital revenue is materially different between third quarter forecasts and final year end actual.

[redacted]

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

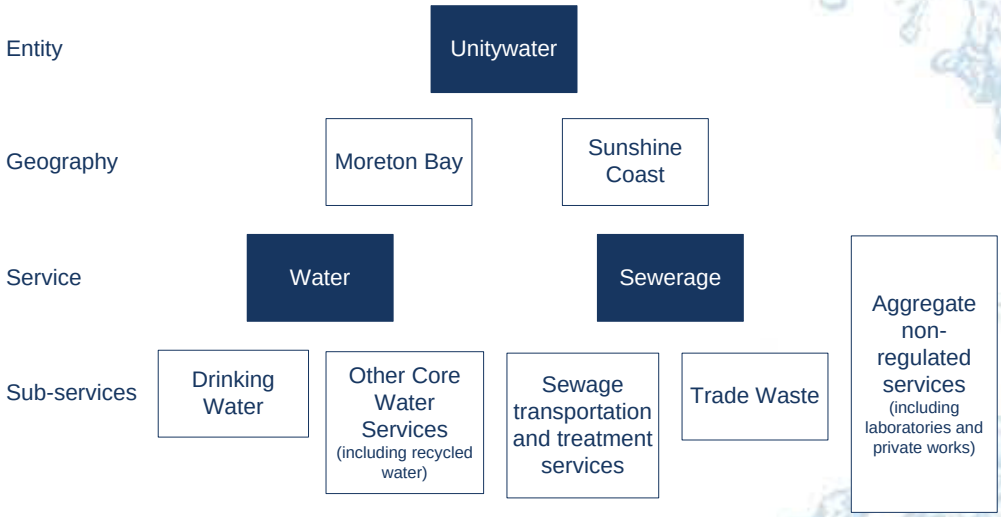
Information provided by Unitywater reflects the substance of each transaction in order to disclose a complete and accurate picture of events with best available estimates at the time of preparing the submission.

Historical information provided for 2009/10 is consistent with council records to the extent information was made available to Unitywater. Forecast information for 2010/11 is based on Unitywater's quarter three estimates and information for 2011/12 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 10 (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 10 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 2011/12 budget based on a combined methodology of: zero based costs, and historic values escalated for growth and cost, and any known scope changes.

Table 5 (below) provides a summary of the budget approach for key revenue and cost items.

Table 5 Budget Methodology

ELEMENT	ZERO BASED	HISTORICAL/EXTRAPOLATED
Revenue		
Utility Revenue	✓	
Fees and Charges (including trade waste)		✓
Other Revenue		✓
Capital Revenue		✓
Operating Costs		
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[25]	✓	
- Indirect taxes		✓
Capital Expenditure	✓	

[25] Regulatory fees are as per notice from the QCA and have increased by 5.8%, well in excess of the CPI price cap. These fees are excessive compared to equivalent fees for Victorian water and sewage treatment businesses regulated by the Essential Services Commission Victoria (ESCV).

[redacted]

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 2011/12:

- All expenses and revenues were budgeted in nominal dollars with separate escalation of cost increases;
- Price and growth escalation factors were applied universally 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 2011/12 and continues to work on longer-term forecasts. Currently fewer granularities of data exist for the period 2012/13 to 2013/14. However, as part of the NetServ plan and continuing development of the capital expenditure gateway approval process, a fully justified three year capital forecast will be developed.

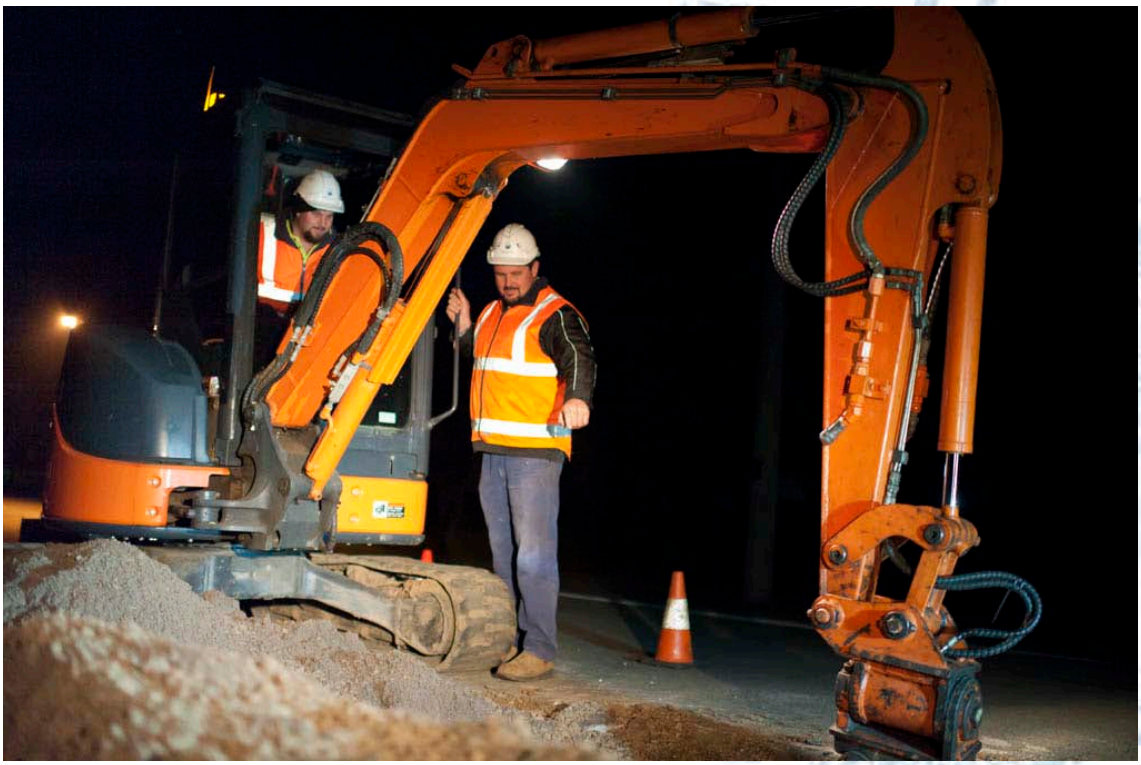
[redacted]

2.3 PRICE ON CARBON – IMPACT EXCLUDED FROM ESTIMATES

Unitywater has excluded from its estimates the cost impact of the Federal Government's proposed carbon tax. The likely impacts 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 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 if it qualifies for any relief under the Prime Minister's policy announcement on 10 July 2011.



[redacted]

3. STATUTORY ACCOUNTS

This section describes Unitywater's statutory accounting information and estimated year end financial statements for 2010/11, 2011/12, 2012/13 and 2013/14

As Unitywater did not become operational until 1 July 2010, composite information for a balance sheet and cash flow prior to that point were not available for analysis purposes.

Unitywater is currently compiling its financial statements for its first year of operations, being 2010/11. Unitywater submits Table 6, Table 7 and Table 8 provided in this section, as indicative profit and loss, balance sheet and cash flow statements prepared from draft results. These will be updated when Unitywater's financial statements for 2010/11 have been finalised and audited.

3.1 SUMMARY OF STATEMENT OF PROFIT AND LOSS

Table 6 (below) presents a high level summary 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 6 (below) and provided in template 5.1.1 has been prepared based on the draft 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 6 Summary of profit and loss ($M)

	FY2011	FY2012	FY2013	FY2014
Revenue	468.2	475.1	520.2	576.3
Expenditure	399.6	433.6	470.4	506.3
Earnings after tax	68.6	41.5	49.8	70.0

As indicated above Unitywater's draft accounts calculate earnings after tax of $68.6M and $41.5M in 2010/11 and 2011/12 respectively. This represents a decrease in earnings after tax of 39.5% between the two periods.

[redacted]

3.2 SUMMARY OF BALANCE SHEET

Table 7 (below) presents a summary of Unitywater's balance sheet based on draft results. The figures presented will be updated when Unitywater's 2010/11 financial statements have been finalised and audited.

Table 7 Summary of Balance Sheet

	FY2011	FY2012	FY2013	FY2014
Assets	2,894	2,970	3,024	3,047
Liabilities	1,449	1,517	1,560	1,569
Equity	1,445	1,453	1,464	1,478

The estimates provided illustrate an anticipated increase in equity of 0.5% ($8.0M) from 2010/11 to 2011/12. Total equity is forecast to increase to $1,478 in 2013/14.

3.3 SUMMARY OF CASH FLOW

Table 8 (below) presents a summary of Unitywater's cash flow based on draft results. The figures presented will be updated when Unitywater's 2010/11 financial statements have been finalised and audited.

Table 8 Summary cash flow ($M)

	FY2011	FY2012	FY2013	FY2014
Opening Balance	-	69.7	40.9	32.6
Operating Cash flow	161.8	209.4	225.7	256.8
Investing Cash flow	(168.6)	(154.0)	(127.7)	(120.2)
Financing Cash flow	76.5	(84.2)	(106.4)	(161.2)
Closing Balance	69.7	40.9	32.6	8.0

The estimates provided illustrate an anticipated decrease in cash available at 30 June 2012 from that at 30 June 2011 of 41.3%, being $28.8M. The total cash available is forecast to decrease to $8.0M in 2013/14.

3.4 REGULATORY ADJUSTMENTS

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

[redacted]

4. REVENUE AND PRICING

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

4.1 PRICING PRINCIPLES

Unitywater has adopted the following four principles in its interim pricing:

- To transition towards 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, National Competition Policy and equity and access issues;
- Reduce complexity for customers; and
- To move towards providing commercial returns to participant councils, as required by the Participation Agreement.

4.2 MAR UNDER (OVER) RECOVERIES

The pricing in 2010/11, as indicated in the QCA's final report[26], was set at a level that resulted in Unitywater receiving revenue that was $20.6M below MAR (water by $13.9M, and sewerage by $6.7M). Actual results for the year ended 30 June 2011 are not yet available.

Unitywater indicated in its 2010/11 Interim Price Monitoring Submission that to achieve MAR immediately would result in significant price shocks for its customers. A price path over a number of years was required to allow for tariff reform and planning process standardisation. In considering an appropriate time period over which to achieve full cost reflective pricing, it is important that the future regulatory framework and pricing principles be well developed. At present, the water regulatory framework in Queensland is evolving and uncertain.

Unitywater has consistently committed to carrying forward under (over) recoveries between price and MAR on a net present value (NPV) neutral basis over a timeframe yet to be determined. To this end, Unitywater has proposed a MAT scheme to provide some certainty, particularly as under (over) recoveries are expected. If Unitywater under recovers, it impacts the returns to Unitywater's two participating regional councils. Councils receive returns from the operation of Unitywater; and those returns contribute toward the quality and availability of social infrastructure within the Sunshine Coast and Moreton Bay regions.

4.3 MAT SCHEME

The purpose of the MAT scheme is to introduce a temporary account 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 would occur through establishing a medium term

[26] QCA, Final Report SEQ Interim Price Monitoring Part B page 226

[redacted]

price path that meets this objective. After the balance is cleared, prices will be set to achieve MAR.

Unitywater submits a paper prepared by Synergies Economic Consulting on the appropriateness, form and operation of such a scheme. Refer to Appendix 1.

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 and in particular, the QCA's consideration of the MAT scheme.

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 would appreciate discussing with the QCA the merits of, and its receptiveness to, such an approach.

Unitywater would likely align any move to partial asset offset with other tariff reform or pricing adjustments in order to make best use of natural hedges to reduce unnecessary price fluctuation. Unitywater would welcome the opportunity to discuss these alternatives with the QCA and explore options to reduce price volatility and transition towards the QCA's preferred approach to account for cash and donated assets.

4.5 REGULATORY FRAMEWORK

During the last financial year, development of the regulatory framework and pricing principles was not progressed as far as Unitywater would have liked. The Government's 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.

However, one important element of the regulatory framework was settling establishment costs[27] and the opening 1 July 2010 RAB, which was recently approved by the Minister.[28] Future elements include the councils developing their regional PMPs and clarification of the regulatory framework subsequent to the interim price monitoring period ceasing on 30 June 2013.

As a form of price control, the CPI price cap places volume risk on Unitywater. Unitywater has little control over water demand; particularly with tariff prices CPI capped to June 2013 and with the QWC controlling permanent water conservation measures. Permanent water conservation measures and policy setting do not reflect an economic incentive that uses price to encourage water efficiency and investment in alternative solutions to address either demand or treatment standards of water.

[27] Hon Stephen Robertson MP Reference CTS 00519/11; D/10/053556 regarding $13.133M establishment costs to roll into the RAB dated 17 February 2011

[28] Hon Stephen Robertson MP Reference MO/11/772; CTS 04525/11; ME/11/0159 regarding: Participation Agreement and Regulated Asset base calculations dated 30 May 2011

[redacted]

4.6 BILLING SYSTEMS

Unitywater has continued to operate two customer billing systems, one from each of the participating councils. These systems were originally designed for general rating purposes and have some limitations for tariff reform. Neither system offered a permanent solution to Unitywater. A project to replace the existing systems with a purpose built customer and billing solution is underway, with expected delivery in December 2011 and its first bill run in early 2012.

4.7 INITIAL PRICING WORK FOR 2011/12

Consistent with the above stated principles, Unitywater had commenced tariff reform and pricing harmonisation for the 2011/12 financial year. Unitywater intends to continue to progress tariff reform to the extent possible during the price cap period and will be cognisant of the councils' PMPs as they develop over time.

A considerable effort in 2010/11 was devoted to tariff reform across all core services and the prices planned reflected significant progress in that regard. Unitywater had announced 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 introduced a legislated price cap in addition to capping developer charges. Due to the impact on some customers, the constraints of the current billing systems, and the price cap legislation, these pricing changes were not completed in 2010/11 but are planned to be developed over time.

4.8 IMPACT OF STATE IMPOSED PRICING CAP

The State Government imposed CPI price cap applies to Unitywater's water and sewerage services, access and water consumption charges for specified customer groups, excluding the bulk water pass through, in 2011/12 and 2012/13. The specified customer groups are all 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.

The reality, given the constraints with our two current billing systems, is that Unitywater has had to apply the cap to all water and sewerage service customers for 2011/12, therefore limiting the price increase to 3.6%.[29] System restrictions and the desire to avoid customer confusion have meant that Unitywater, in implementing the cap, has also had to defer tariff reform for water and sewerage services, until 2012/13 at the earliest. The State Government CPI price cap is currently legislated to apply in 2011/12 and 2012/13. Unitywater will reassess its systems capabilities to differentiate between small and larger customers for 2012/13 year prices.

In order to implement the cap, Unitywater used its existing pricing structure for water and sewerage services and increased each price by less than or equal to 3.6% for 2011/12.

The recent legislative amendments in relation to pricing require participating councils to prepare PMPs that demonstrate how they intend to mitigate the price impacts in the six years following the end of the State Government CPI cap to 30 June 2019. The plans are to be published in

[29] CPI increase did not apply to trade waste, recycled water, miscellaneous fees and charges or large business customers

September 2011 and the final price path is to be published in March 2013. For the pupose of this submission Unitywater has assumed the indicative price cap level increase of 3.6% will continue for 2013/14.

Trade waste and recycled water were excluded from the CPI cap legislation and Unitywater proceeded with the first year's reforms for these services. In the case of recycled water, the historic pricing was inconsistent between the regions and the price levels were well below even the short term variable costs of supply. 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 both harmonisation and reform was made. The planned reforms involve clear separation of the three principle components of permit fees, volumetric charges and strength charges.

4.9 REVENUE FOR EACH SERVICE BY REGION

Unitywater's third quarter year end forecasts were used for 2010/11. For 2011/12 to 2013/14 the 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 for these core services is revenue from miscellaneous fees and charges. This revenue is used to offset the MAR before the setting of prices. For non-regulated services the revenue is all fees and charges. Table 9 (below) indicates the level of revenue for each service for the Moreton Bay region where as Table 10 (overleaf) indicates the level of revenue for each service for the Sunshine Coast region.

Table 9 Moreton Bay revenue by service

Services ($M)	FY2011	FY2012	FY2013	FY2014
Drinking Water	88.5	104.4	115.8	128.1
Other Core Water	8.0	6.7	6.9	7.3
Sewage via Sewer	108.3	114.9	122.4	130.4
Trade Waste	1.2	1.4	1.5	1.6
Non Regulated	2.0	3.2	3.3	3.5
Revenue from Services	208.0	230.5	249.9	270.8

Note: Other core water services is the 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 10 Sunshine Coast revenue by service

Services ($M)	FY2011	FY2012	FY2013	FY2014
Drinking Water	68.7	85.3	96.2	107.9
Other Core Water	-	-	-	-
Sewage via Sewer	83.2	85.6	90.8	96.5
Trade Waste	1.4	1.6	1.8	1.9
Non Regulated	1.0	1.4	1.5	1.6
Revenue from Services	154.3	173.9	190.3	207.9

Note: all values are in nominal dollars.

Table 11 Reasons for increasing forecast revenue

Drinking Water	The rise in revenue is primarily due to the pass through of higher bulk water costs, and the impact of growth. The increasing revenue is also a function of additional capital expenditure required to augment inherited assets to meet licence conditions and growth. This in part reflects a historical under investment in the infrastructure.
Sewage via Sewer	The rise is due to the same factors as drinking water, with the exception of bulk water charges. Accordingly the increases are less than for drinking water.
Other Core Water	Predominately the contract arrangement for Murrumba AWTP. Other recycled water revenue will increase as we move to cost recovery.
Trade Waste	Increase relates to growth.

Revenues from non-regulated activities are set out in the completed templates. Non-regulated services for 2011/12 are covered in more detail in later sections.

Unitywater has provided greater detail in the completed templates for 2011/12 with each of the 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 are a small proportion of total revenue). The current legacy billing systems do not allow easy identification of the number of customers or other quantifiable information in relation to these other fees and charges, although the amount of revenue is minor when compared to utility charges.

4.10 CLASSIFICATION BY CUSTOMER GROUP

Due to data limitations, Unitywater has used the percentage for residential and non-residential customer revenue sourced from the most recent utility charge notices for both water and sewerage to calculate utility charge revenue. The only commercially negotiated agreements are in relation to recycled water and this category has been used exclusively for this service.

[redacted]

Information on the disaggregation of other revenue between categories is not available from Unitywater's current billing system; and as a result, this has all been allocated to the 'other revenue' category.

4.11 FORECAST REVENUE COMPARED TO MAR

Unitywater in its initial pricing for 2011/12 has limited price increases in accordance with the State Government imposed CPI price cap. Price increases for water and sewerage will be subject to the cap for the first two years forecast in this submission. Due to the work undertaken on tariff reform and price mitigation, the third year forecast increase has also been left at the current cap level. The 2011/12 under-recovery has been estimated in accordance with the adjustment mechanisms outlined above, any residual under (over) recovery will be identified for purpose of the MAT scheme account for inclusion in future price setting formulas. The level of under-recovery for the three years of budget forecasts for the water services is indicated in Diagram 11 (below), and Diagram 12 (overleaf) provides the same information for sewerage services.

Diagram 11 Water service – forecast revenue compared to MAR

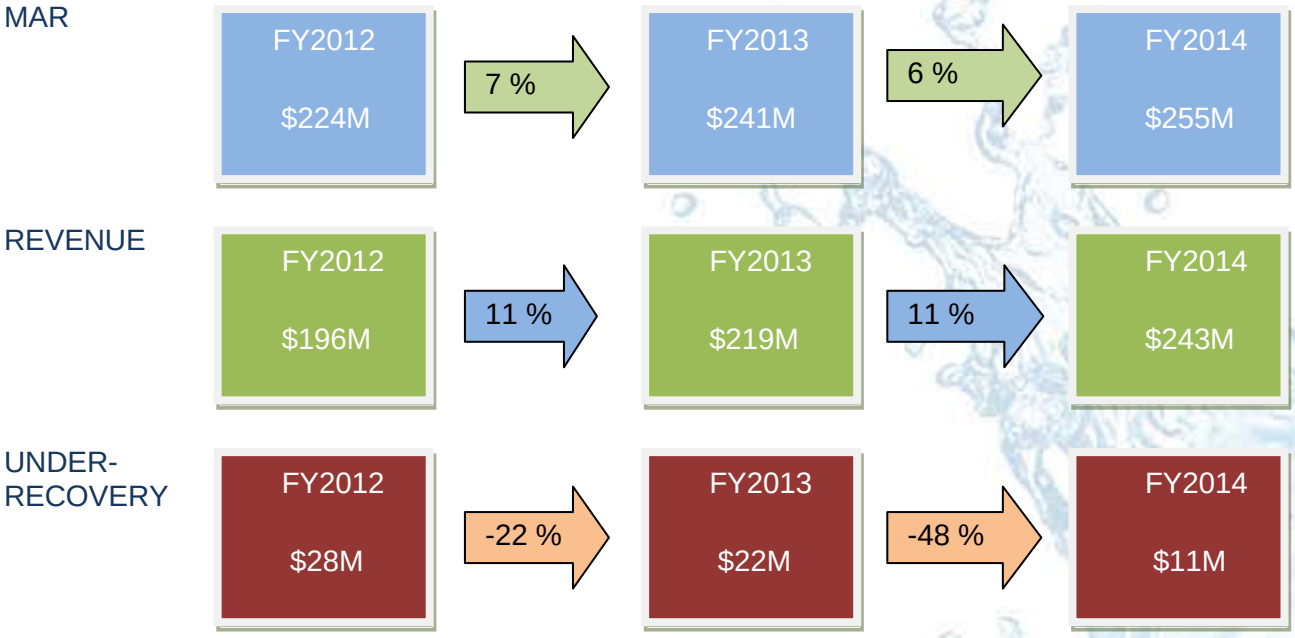
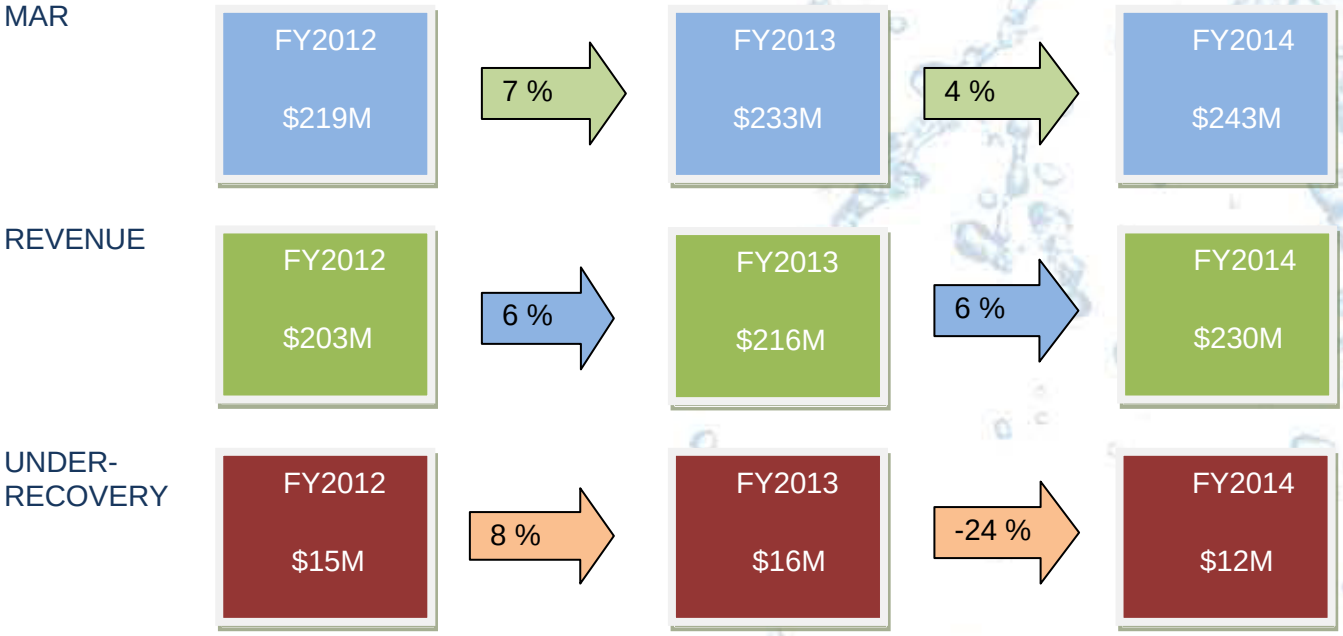


Diagram 12 Sewerage services – forecast revenue compared to MAR



The forecast under-recovery demonstrates that Unitywater's prices are insufficient to cover its costs to provide these services. The total under-recovery over the three year forecast period is $104.9M, in addition to QCA's assessment that Unitywater under recovered MAR in 2010/11 by $20.6M, resulting in cumulative under-recovery of MAR by up to $125.5M in nominal terms by 30 June 2014.

As previously mentioned, Unitywater would like to discuss with the QCA a MAT scheme to record and carry forward MAR under (over) recoveries for possible inclusion in future periods. Unitywater recognises that this may be impacted by local government PMPs and the CPI price cap.

4.12 SIDE CONSTRAINTS

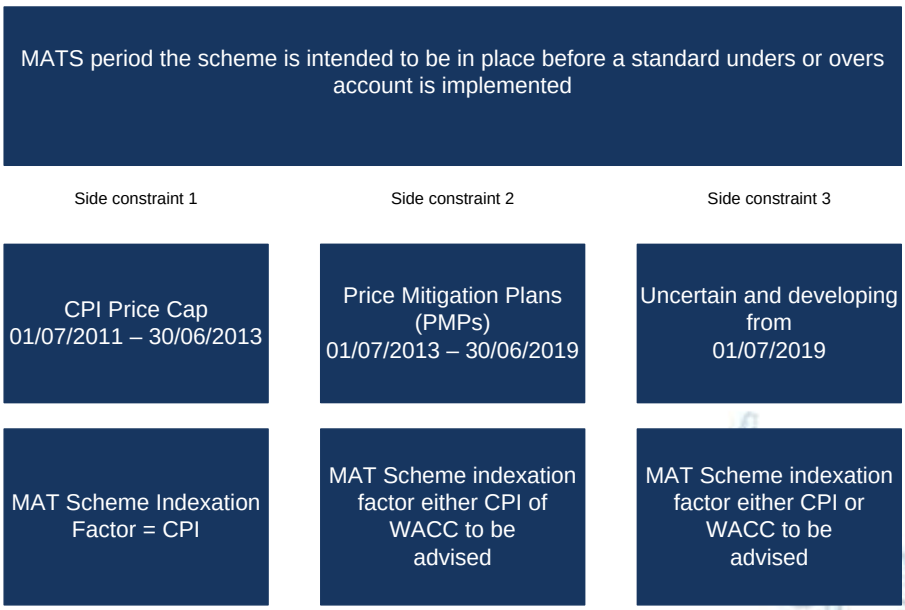
Side constraints describe a method to limit the size of annual price changes and thereby reduce price volatility. In general they are symmetrical in operation and smooth the annual price impact of adverse or beneficial events. Unitywater is also subject to the State Government's changes to the *Sustainable 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 13 (overleaf) 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 tolerance limits discussed in Appendix 1.

The side constraints are as follows:

- The CPI price cap on distributor-retailer charges in operation until 30 June 2013;
- The local government PMPs to be published by 1 March 2013 and in operation until 30 June 2019; and
- Unitywater may propose a side constraint (yet to be determined) in consultation with the applicable regulator, at that time.

Diagram 13 Unitywater side constraints current and foreseeable



4.12.1 CPI PRICE CAP (EXCL BULK WATER)

The State Government legislation enacted in June 2011,[30] introduced a side constraint in the form of a CPI[31] cap on charges for SEQ distributor-retailer water and sewerage services supplied to residential and small business customers in 2011/12 and 2012/13.

The result is a capped increase of 3.6% in Unitywater's fixed water and sewerage access charges and water usage charges in 2011/12 based on the Brisbane CPI for March 2011. The State Government's price cap does not apply to its own bulk water charges. The charge for bulk water will increase by 16.5% in Moreton Bay and 25.2% on the Sunshine Coast in 2011/12.

Unitywater implemented the price cap and has applied it irrespective of volume usage, due to the billing complexity of implementing the State Government's business customer segmentation based on 100kL of drinking water usage per year. Unitywater will consider whether its future billing system may permit such segmentation in 2012/13.

The State Government legislation also required that the CPI side constraint not be affected by a rebate or subsidy change in any local government rebate or subsidy 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.

[30] Fairer water prices for SEQ Amendment Bill 2011, Subdivision 2 Caps
[31] CPI is defined as March-to-March Brisbane CPI

[redacted]

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 both the Moreton Bay and Sunshine Coast regions. Unitywater will borrow to fund essential infrastructure and determine a price path to recover the cost in future periods.

4.13 PRICE MITIGATION PLANS

The State Government legislation introduced in June 2011[32], introduced a side constraint in the form of PMPs that would 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 and sewage treatment services provided by the distributor-retailer for the period from 1 July 2013 to 30 June 2019.

There is an obligation to provide a copy to the Minister and to publish a copy of the price mitigation plan 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 local government.

PMPs are not limited in terms of flexibility but they are required to include:

- The price path for the introduction of increases in charges that moderates the impact of these increases on customers;
- The policies the participating local government 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 local governments are applied to provide subsidies or rebates to users of water services or sewerage services.

The final price path published by 1 March 2013 must state graduated price increases for the 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 path.

4.13.1 FUTURE PRICING

Unitywater will consider the necessity for additional side constraints to be implemented after 1 July 2019. Considerations will take into account tariff reform progress, the previous two side constraint initiatives and the applicable regulatory framework applying at that time.

In general terms, it is Unitywater's view that detailing a side constraint would necessitate 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.

[32] Fairer water prices for SEQ Amendment Bill 2011, Part 2 Participating local government price mitigation documents

Unitywater considers the tolerance limits discussed in Appendix 1 to be broadly consistent with an acceptable range of values and that they may mitigate the necessity for further side constraints.

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, in general terms 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. These 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 contract specific service standards that are specific to the recycled water plant and does not have implications beyond that asset to the remaining customer base.

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); 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 this requirement and has published the aligned service standards (Customer Charter) on its website and provided it to customers in both regions. The Customer Charter is included in this submission as Appendix 2.

[redacted]

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 Unitywater can provide these to the QCA (along with other related documents) on request.

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 1002:2004, MOD) continued to apply. The other aspects of service standards contained in the SAMP are set out in Appendix 3.

[redacted]

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^3 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 are provided in Appendix 2 and are listed in Table 12 (overleaf):

Table 12 Current Service Standards

Description	Commitment
Water Quality	• **Australian Drinking Water Guidelines Standard (NHMRC)** • Less than or equal to 10 water quality complaints per 1000 properties per year • Less than or equal to 5 water quality incidents per 1000 properties per year
Water Supply	• Water Pressure: - **210 kilopascals (21 meters)** - **160 kilopascals (16 meters) (isolated elevated areas adjacent to reservoirs)** • Water Volume: - **23 litres per minute**
Continuity of Water Supply	• **Less than or equal to 15 unplanned water interruptions per 1000 connections per year** • Less than or equal to 30 unplanned water interruptions per 100 km of water main per year • **Following an interruption, restoration of supply within 5 hours for 90% of cases** • 135 minutes average time to restore supply after an interruption • Less than or equal to 20 water main breaks per 100 km of water main per year
Continuity of Sewerage Services	• Less than or equal to 5 dry weather overflows to customer properties per 1000 connections per year • Less than or equal to 5 dry weather overflows per 100 km of sewer main per year • Less than or equal to 25 sewer main breaks per 100 km of sewer main per year • Less than or equal to 3 odour complaints per 1000 connections per year
Customer Service and Notifications	• **Less than or equal to 1 hours time of response to urgent incidents for 90% of cases** • Less than or equal to 48 hours time of response to non-urgent incidents for 95% of cases • **Minimum of 48 hours notification of planned interruptions** • **Less than 15 working days to commence work following customer payment for 95% of cases**

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. These standards will be incorporated into Unitywater's Netserv plan, which will replace the SAMP and other plans.

[redacted]

SEQ Water Grid Manager Contract

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 Allconnex with regard to the development of the "SEQ Design & Construction Manual" to ensure that the recently established CSS for QUU and pending service standards for Allconnex are consistent with Unitywater's CSS.

Contract with the WGM

The SEQ Water Market Rules define the obligations of water grid participants, including Unitywater. Unitywater has been a customer of the WGM from 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.

6. DEMAND

This section describes Unitywater's demand forecasts used to calculate MAR and for planning growth capital expenditure.

Under State Government legislation, tariff prices will be capped at CPI for residential and small business customers in 2011/12 and 2012/13 and therefore any variations in demand will not impact tariff levels.

6.1 WATER DEMAND

Table 13 (below) summarises Unitywater's current forecasts for water volume demand.

Table 13 Water demand (ML)

		FY2011	FY2012	FY2013	FY2014
Moreton Bay Region	Demand	21,992	22,000	22,442	22,957
	Change in demand	3.1%	0.04%	2.0%	2.3%
Sunshine Coast Region	Demand	24,743	24,000	24,496	25,072
	Change in demand	3.9%	-3.0%	2.1%	2.3%

Recent actual consumption has been derived from the meter reading results of current customer's. Demand for 2011/12 to 2013/14 was forecast based on consumption for the 2010/11 period and population forecasts from DAP (formerly PIFU).

Uncertainty in these forecasts results from climatic conditions and shifting community attitudes towards water consumption. Forecasting over the next one to three years will be difficult as the impact of significant bulk water price rises interacts with a Moreton Bay region now in post drought conditions and a Sunshine Coast region which is now applying permanent conservation measures. How these communities respond to the changing circumstances is difficult to estimate. As a result, Unitywater has calculated forecasts that reflect anticipated population increases with no forecast change in per person per day usage.

Unitywater will revise and improve on these forecasts over the price monitoring period, as the business gains more operational experience and as the impact of new permanent conservation measures (applied by the QWC) on customer behaviour becomes clear.

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.

6.2 WATER DEMAND AND DISTRIBUTION LOSS FACTORS

Bulk water system losses have also been forecast. Unitywater submits that this category of expenditure has been used generically and captures several factors that contribute to water entering the network that is not metered at a supply point.

Unitywater has included in Program Paramount a project to quantify Non-Revenue Water. The International Water Association (IWA) defines Non-Revenue Water as *"the difference between system input volume and billed authorised consumption. Non-revenue Water consists of the following:*

(a) *Unbilled Authorised Consumption;*

(b) *Apparent Losses (i.e., unauthorised consumption and all types of inaccuracies associated with metering); and*

(c) *Real Losses (i.e., losses at mains, service reservoirs, and service connections (up to the point of customer metering). The annual volume lost through all types of leaks, bursts, and overflows depend on their individual frequencies, flow rates, and duration)."*

Calculating Non-Revenue Water requires comprehensive data collection and verification involving:

(a) Data Availability and Quality: data sets are assessed to understand the availability and quality of data for calculation of system leakage (infrastructure leakage index and loss per connection per day) and non-revenue water;

(b) Business Systems to Support Data Management: business systems for acquisition, verification and maintenance of the integrity of data to assess systems adequacy; and

(c) Quantification of Non-Revenue Water: The volume of non-revenue water calculated using an internationally recognised methodology. Unitywater's best available data set is from 2009/10, however this is recognised as not ideal in terms of data quality and business systems.

In Unitywater's water supply networks, a preliminary estimate of the volume of non-revenue water is 7,297 ML/yr, the volume of Unavoidable Real Losses is believed to be in the range of 6,718 ML/yr to 6,270 ML/yr. This estimate was calculated subsequent to the estimates in Table 14 (below) although both estimates are preliminary due to the paucity of data and systems. The Program Paramount Non-Revenue Water project will improve data quality, reporting and forecasting.

Table 14 Distribution Loss factors (ML)

		FY2011	FY2012	FY2013	FY2014
Moreton Bay Region	System Losses	2,664	2,665	2,718	2,781
	Loss Factor	10.8%	10.8%	10.8%	10.8%
Sunshine Coast Region	System Losses	3,459	3,105	3,170	3,244
	Loss Factor	11.5%	11.5%	11.5%	11.5%

[redacted]

The loss factor for 2009/10 was 13.8%. This was based on an analysis of actual losses during 2009/10 in Moreton Bay. This loss factor was the best available information to Unitywater at the time and was applied across the entire network. More up to date actual results have been obtained during 2010/11 from both customer and bulk meter reads. The improved source data has resulted in lower loss factors shown for each region.

It should be noted that it would not be economical for Unitywater to develop and implement operational initiatives to recover 100% of non-revenue water. Unitywater's water supply networks have millions of joints which are potential leakage points. Leaks may vary from slow 'weeps' to high volume flow. It is not possible; practical or cost effective to detect and repair all leaks. This volume of leakage is described as "Unavoidable Real Losses".

By deducting Unavoidable Real Losses from Non-Revenue Water, in the case of 2009/10, the volume that may be economical to detect and reduce is in the range 579ML to 1,027ML. Unitywater recognises this preliminary estimate possesses a number of data gaps and data issues, which is why a Program Paramount project was established. Unitywater is investing in data improvements to provide more reliable data sets on which a business case may be developed to quantify non-revenue water. Data improvements and integration for analysis and reporting will also assist other areas of Unitywater such as:

(a) Infrastructure Planning – Flow metering and consumption records are standard inputs required for many network planning and modelling projects. Water network calibration projects require both inputs. Needs analysis and feasibility studies will often require current network demand to be understood for comparison against projected planning demands. Having reliable, accessible and quality data inputs available will benefit Unitywater's network planning. Maintaining up-to-date spatial records will assist both infrastructure planning and non-revenue water assessments.

(b) Network Operations – Reliable and readily available flow metering is important to the network operations area of Unitywater. Active monitoring of the flow meters within the control room through SCADA will enable burst and water loss incidents to be identified. An integrated system will also provide a mechanism for operations reporting on activities such as repairs, mains flushing, commissioning, and dirty water events.

(c) Asset Management – Systems to record water incidents will assist the accuracy of water balance calculations. The same systems will assist Unitywater targeting problem assets in renewal and replacement programs. An integrated data base will be available for the asset management area to enter information which may be useful in monitoring ongoing improvements.

(d) Business Analysis – The ability to readily access integrated data required for non-revenue water assessment will greatly assist the business analysis section of Unitywater. An integrated system will enable access to production, consumption, asset and incident data.

Unitywater is undertaking a project that will address each of the above listed causes with the aim of a further reduction in loss factors. The improvements will take several years to identify and implement, hence no further reduction in bulk water losses are forecast in the remaining years relevant to this submission.

[redacted]

6.3 DEMAND FOR WATER AND SEWERAGE SERVICES

Table 15 (below) shows forecast equivalent base water charges for water demand for 2010/11 to 2013/14.

Table 15 Water demand forecast (equivalent base charge for customers)

Equivalent Base Charge Demand Forecast For Water Customers	FY2011	FY2012	FY2013	FY2014
Moreton Bay	145,816	149,986	154,233	158,617
Change in Demand	3.26%	2.86%	2.83%	2.84%
Sunshine Coast	144,312	148,223	151,945	155,766
Change in Demand	2.41%	2.71%	2.51%	2.51%

Actual water access revenue in 2010/11 was used to calculate the number of equivalent base charges received by Unitywater. Dwellings growth forecasts from DAP (formerly PIFU) were then used to forecast the next three years.

The sewerage access charge is generally based on the number of pedestals. Table 16 (below) shows the forecast for both regions for the period 2010/11 to 2013/14.

Table 16 Sewerage demand forecast (equivalent base charge customers)

Equivalent Base Charge Demand Forecast For Sewerage Customers	FY2011	FY2012	FY2013	FY2014
Moreton Bay Region	148,426	152,671	156,994	161,455
Change in Demand	3.27%	2.86%	2.83%	2.84%
Sunshine Coast Region	137,106	140,822	144,358	147,988
Change in Demand	2.41%	2.71%	2.51%	2.51%

Sewerage charges, unlike water, do not include a volumetric component except for non-residential customers in the Maroochydore region of the Sunshine Coast. For this group the sewage volume is calculated as a percentage of measured water consumption, rather than from continuous direct monitoring of sewage flows.

Sewage volumes for the Maroochydore region are forecast to increase at the same rate as volumetric water. For the purposes of breaking down water and sewerage costs between customer groupings data (residential and non-residential) actual customer billing for 2010/11 was used.

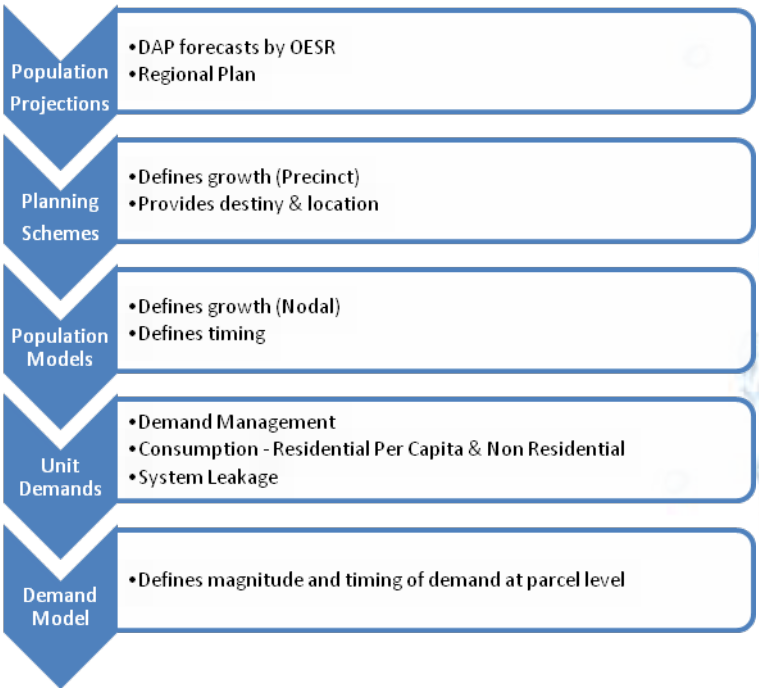
[redacted]

6.4 DEMAND FORECASTING FOR CAPITAL PLANNING

Demand forecasts are also made to enable planning for capital expenditure. These forecasts are based on projected populations, planning scheme requirements and unit demands for both residential and non-residential consumers.

Diagram 14 (below) illustrates the method currently used to derive forecast demands for water and sewerage core services.

Diagram 14 Demand Projection Process Chain



** DAP - Demography and Planning: OESR – Office of Economic and Statistical Research, Queensland Treasury*

In essence, the process chain can be described as follows:

Link 1
Regional population projections are provided by the Office of Economic and Statistical Research of Queensland Treasury. These projections, along with the SEQ Regional Plan, set out the population growth and the urban footprint for the region.

Link 2
Overlaying this is the council planning scheme. The planning scheme sets out in more detail (down to the precinct level) where development can occur, the type of development, and the acceptable density of development. In the near future, the planning scheme is also likely to incorporate TWCMP measures that the council would like to see adopted.

Link 3
From the planning scheme, a population model is prepared that defines growth down to the level of individual allotment. Importantly, the population model needs to make assumptions (at the allotment level) about when such growth might occur.

[redacted]

Link 4
Unit demands have been determined for both residential and non-residential consumption. For residential consumption, unit demands are assessed at 230 litres per capita per day (L/c/d). For non-residential consumption, unit demands are expressed in terms of either allotment area for industrial development (i.e. 25 equivalent persons per hectare) or floor area for commercial development (i.e. five equivalent tenants per 100 sqm gross floor area).

Link 5
A demand model is prepared that sets out existing and future water and sewerage demands (at the level of the parcel) covering the whole of the serviced region. This demand model becomes the major input to the growth-related capital planning process.

Link 6
Demand projections are made by the model for five year periods for up to 20 years.

The demand projections derived via this method will generally be more conservative (i.e. higher) than for shorter term demands because:

- It assumes full occupancy of residential and tourist facilities. This reflects the higher loads experienced during holiday periods which govern the sizing of infrastructure;
- In some locations, a demand factor on the 230 L/c/d has been applied to cover the longer-term uncertainty of current consumption trends. This is the case in Moreton Bay, although not presently at the Sunshine Coast. It is anticipated that over time a consistent load factor will be developed and applied across the extended region; and
- It assumes that land with current Development Approval proceeds to market over the next five years.

The demand projections used for the purposes of planning future capital infrastructure are not at the granular short-term forecast level. Instead, these demands include provisions for higher than average annual populations, and in some cases, where there is uncertainty in relation to consumption trends, they will include higher than average annual consumption.

6.5 DEVELOPMENT OF NEW DEMAND FORECASTING METHODOLOGY

In the final Price Monitoring Report for 2010/11, the QCA raised concerns regarding the lack of transparency of demand forecasts for the purposes of capital planning, as well as the misalignment between the demand forecasts made for the purposes of planning future infrastructure and for forecasting water consumption and related revenue. Unitywater has recognised that a clear, consistent and region-wide methodology to establish new demand models upon receipt of new planning assumptions from the participating councils is required.

A major project to address this issue has commenced as part of the Netserv plan. Details of this project can be made available to QCA for discussion on request.

[redacted]

7. REGULATORY ASSET BASE (RAB)

This section discusses how the opening RAB as at 1 July 2010 was calculated and approved by the Minister for Energy and Water Utilities, and the process for the RAB roll forward over the price monitoring period to 30 June 2014.

7.1 GENERAL APPROACH

A three stage approach was adopted by Unitywater in the determination of the RAB value to be used for setting prices for 2011/12 and the preparation of this submission. The three stages were:

1. Determining the initial RAB value as at 1 July 2008 in accordance with the Minister's advised values;
2. The roll-forward of this initial RAB value to the opening RAB value as at 1 July 2010 in accordance with both the process specified by the Minister in the participation agreement and the process specified by the QCA in its publication 'Information Requirements for 2011/12'; and
3. Roll-forward of the opening RAB value to 30 June 2014 in accordance with the QCA specified process.

The first two stages, in addition setting of RAB value for pricing purposes were required to assist with determining councils' participation rights in Unitywater. This resulted in two separate RAB calculations as at 1 July 2010, one being a Regulatory RAB for price setting which includes establishment costs and the other being a participation RAB which excludes capital works in progress.

7.2 INITIAL RAB 1 JULY 2008

The 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. This means that each participating council's initial regulated asset base value, as advised by the Minister, was assigned to the water business asset base for each council as at 30 June 2008.

Table 17 (below) shows the values as advised for the Moreton Bay and Sunshine Coast Regional Councils.

Table 17 Initial RAB Values 1 July 2008 as advised by the Minister ($M)

Region	RAB 1 July 2008	Region	RAB 1 July 2008
MBRC		SCRC	
- Caboolture	475.5	- Caloundra	303.2
- Pine Rivers	532.4	- Maroochy	514.9
- Redcliffe	102.2	- Noosa	101.8
Total MBRC	1,110.0	Total SCRC	919.9
Combined Total	2,029.9	n/a	n/a

[redacted]

The assignment of the Minister's asset value involved identification of the assets of the councils' water businesses as at 30 June 2008 and applying an adjustment factor to the written down value of each individual asset to align to the Minister's value.

Unitywater relied on the detailed asset listings supplied by the councils and undertook a two part verification process. At the macro level, the total of the assets was reconciled to the financial statements of each council. At the micro level, the asset listings were reconciled to the 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.

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 they were able to provide 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.

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 2009/10 disposal records were obtained from the council. For 2008/09, the disposal values as listed in the financial statements were used. These disposal values were included in the 1 July 2008 value to calculate their proportion of the Minister's valuation. They were then removed as part of the roll-forward process in stage 2.

[redacted]

Table 18 (below) displays the initial RAB value as at 1 July 2008.

Table 18 Initial RAB 1 July 2008

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

Files containing individual asset details allocated to services and asset classes are provided as part of the supporting work papers.

7.4 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 as assigned by the council;
- Disposals were identified from the council records and removed at their remaining RAB 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 19 (below) illustrates the results of the roll-forward process to 1 July 2010.

Table 19 Opening RAB Values 1 July 2010 ($M)

Region	RAB 1 July 2008	Net Roll Forward	RAB 30 June 2010	Establishment Costs	RAB 1 July 2010
MBRC	1,110.0	225.2	1,335.2	7.3	1,342.5
SCRC	919.9	148.5	1,068.4	5.8	1,074.2
Combined Total	2,029.9	373.7	2,403.6	13.1	2,416.7

The opening RAB value for Unitywater of $2,416.7M as at 1 July 2010 is the opening value for the RAB which supports the RAB values provided in the QCA templates for the 2011/12 Interim Price Monitoring Submission.

As stated above, differences in the purpose and process for setting the RAB between price-setting and participation rights determination have led to two RAB values for Unitywater as at 1 July 2010.

The table 20 (below) shows the reconciliation between these two RABs.

Table 20 Opening RAB Values 1 July 2010 ($M)

Region	Pricing RAB 1 July 2010	Less Establishment Costs	RAB June 2010	Plus Capital Works in Progress	Participation RAB 1 July 2010	Participation Rights %
MBRC	1,342.5	(7.3)	1,335.2	184.0	1,519.2	58.24
SCRC	1,074.2	(5.8)	1,068.4	21.1	1,089.5	41.76
Combined Total	2,416.7	(13.1)	2,403.6	205.1	2,608.7	100.0

The process of rolling forward Unitywater's RAB to 1 July 2010 for participation rights purposes has been 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 are included in the supporting documents for this submission.

7.5 QCA AMENDMENT TO RAB AS AT 1 JULY 2010

The QCA advised Unitywater via email on 4 August 2010 that they have adjusted 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 21 (overleaf) has been provided by the QCA to reflect this

[redacted]

amendment. As can be observed, the net result is a decrease in the opening RAB value at 1 July 2010 of 0.07%.

Table 21 Amended RAB as advised by QCA 30 June 2010 ($M)

Service	Original	Revised	Variance ($)	Variance (%)
Water	990.6	989.9	-0.7	-0.07
Wastewater	1,466.1	1,465.2	-0.9	-0.06
Combined Total	2,456.7	2,455.1	-1.6	-0.07

Unfortunately as this information was provided after the finalisation of the RAB roll-forward process to 30 June 2014, described below; it was not incorporated into the RAB numbers applied in this submission. Unitywater looks forward to working with the QCA to finalise the opening RAB value as at 1 July 2010.

7.6 RAB ROLL FORWARD 30 JUNE 2014

In order to further roll-forward the RAB value each year to 30 June 2014, the 1 July 2010 RAB values need to be adjusted for indexation, depreciation, disposals and additions for the period from 1 July 2010 to 30 June 2014. Unitywater made two key decisions in order to roll-forward the RAB value to 2014.

1. For the purposes of this information return, the revenue offset method for calculation of the RAB has been adopted for 2010/11 to 2013/14 (noting that revenue offset is deemed for the preceding years).
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.

Indexation was applied globally to commissioned assets, developer provided assets and asset disposals all assuming to occur halfway through the year. The CPI indexation rate used is 3.07% and this was calculated using the difference between RBA return on the market rate for five year bonds and five year indexed bonds. The indexation of the asset base is discussed in more detail in Section 11 of this submission.

Additions (capital expenditure) are made up of both ongoing capital projects and renewals projects. These two project categories are added to the RAB using the following methods:

- Ongoing capital projects are added to the RAB on an as-commissioned basis. The capital expenditure source file[33] contains commissioning dates for each project. Once an ongoing capital project reaches its commissioning date, it is capitalised and added to the RAB in that year. Any expenditure that occurs after the commissioning date is capitalised in the same year it is spent; and
- Renewal projects are capitalised each year regardless of commissioning date.

[33] UnitywaterCapexFinal v10.xlsb

[redacted]

The ongoing projects and renewals included in the roll-forward for the period from 1 July 2010 to 30 June 2014 are sourced from Unitywater's three year capital works program. This program is discussed in more detail in Section 8 of this submission.

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 this was included as an opening balance for these ongoing 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.

As 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.

Interest during construction has been calculated for 2011/12 to 2013/14 for all projects which run for a period greater than 12 months.

As renewals are capitalised on a yearly basis they do not incur any interest during construction. Ongoing capital projects will 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.

Regulatory depreciation for assets transferred as at 1 July 2010 was based on the asset values approved by the Minister. Depreciation is discussed in more detail in Section 10 of this submission.

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.

[redacted]

Table 22 (below) summarises the estimated RAB roll-forward for this period.

Table 22 Estimated RAB roll-forward for this period ($M)

Region	Initial RAB 1 July 2010	Add Capital Expenditure	Less Disposals	Less Regulated Depreciation	Add Indexation	RAB rolled forward 30 June 2014
Moreton Bay Regional Council	1,342.5	520.0	(1.2)	(220.4)	204.2	1,845.0
Sunshine Coast Regional Council	1,074.2	446.3	(0.4)	(163.3)	150.7	1,507.5
Combined Total	2,416.7	966.3	(1.6)	(383.7)	354.9	3,352.5

Negligible asset disposals are expected and Unitywater's initial budget did not provide for asset disposals. Disposals have been calculated based on the assumption that the majority of assets will have a nil disposal value. If an asset has a residual value, it is disposed of once it is depreciated to or below that residual 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.


CASE

8. CAPITAL EXPENDITURE

Unitywater has forecast capital expenditure for this interim price monitoring submission to meet expected demand and customer service standards for water reticulation, trade waste, sewage treatment and recycled water, the aim being to maintain the quality, reliability and security of supply of services to customers. This section identifies the major drivers underpinning Unitywater's capital expenditure program. Unitywater has not adjusted these estimates to compensate for the introduction of a price on carbon.

Capital expenditure for 2011/12 was approved by the Unitywater Board as part of its overall budget approval process. Previous forecasts were based on the council budgets that were established prior to Unitywater having the opportunity to review and improve the process and subsequently reduce forecast capital expenditure.

This process includes ongoing scrutiny of expenditure by a committee of the Board, established to monitor and review the capital expenditure program and its delivery, and ensure the program is consistent with Unitywater's strategic objectives.

The Capital Works Committee assists the Board to discharge its corporate governance responsibilities to exercise due care, diligence and skill in the approval of strategic capital works; annual capital works expenditure; and significant capital works commitments.
It also assists with compliance with regulatory principles and applicable licence conditions as applied by the relevant environmental regulator; and implementation of Unitywater's Business Sustainability Policy.

This committee meets monthly to consider progress against timelines and budget and makes decisions as required on variations or budget changes; it also approves expenditure above the CEO's delegation.

In addition, Unitywater has established an Asset Steering Committee to review and endorse investment decisions for Capital and Operations projects.

This committee reports to the Executive Management Team and has recently recommended endorsement of Unitywater's Capital Works Justification Process, advising that it would satisfy Unitywater's strategic and corporate objectives, and the requirements of the economic regulator.

Unitywater is currently establishing further governance structures to underpin the process of developing, assessing and approving capital expenditure forecasts. Unitywater would be pleased to discuss development of these processes with the QCA during this price monitoring review.

The 'Capital Works Master Justification Process' documents: the proposed process as well as the lists of numerous sub-processes; documents and decision points that form the overall process. The process covers the identification, development, prioritisation and approval phases of a typical capital works project/program. Sub-processes are further supported by various tools, templates and guidelines. Development of the systems is being undertaken in consultation with stakeholders across Unitywater and externally with independent consultants.

[redacted]

The in progress master justification process is available to be discussed with the QCA or its consultants.

8.1 SUMMARY

Unitywater has forecast a capital expenditure program intended to:

- Meet customer demand and network connections;
- Meet obligations to provide reliable, secure, safe and high quality drinking water reticulation, and trade waste and sewerage treatment services;
- Provide services in a manner that balances commercial, environmental, sustainability and customer outcomes;
- Replace poorly performing assets or assets in a poor condition; and
- Deliver reliable sewage and trade waste treatment so that discharges into the environment are in accordance with STP licence conditions.

Unitywater's forecast capital expenditure by council region and service for 2010/11 to 2013/14 is included in Table 23 (below). Table 23 represents capital expenditure as capitalised (commissioned) in each respective region and service.

Table 23 Capital expenditure by region and service (including developer provided assets)

As Capitalised by Region ($M)	Service	FY2011	FY2012	FY2013	FY2014
MBRC	Water	50.4	25.3	17.1	23.3
	Wastewater	132.9	179.9	63.8	27.2
	Non-regulated	-	-	-	-
	Total Capital Program	**183.4**	**205.2**	**81.0**	**50.4**
SCRC	Water	21.9	27.8	33.9	31.1
	Wastewater	41.3	35.7	59.8	194.3
	Non-regulated	-	0.2	-	-
	Total Capital Program	**63.3**	**63.7**	**93.8**	**225.5**
Unitywater	Water	72.4	53.1	51.1	54.4
	Wastewater	174.2	215.6	123.7	221.5
	Non-regulated	-	0.2	-	-
	Total Capital Program	**246.7**	**268.9**	**174.8**	**275.9**

The majority of capital expenditure relates to new assets that are mapped on a one-to-one basis of projects-to-cost driver. Unitywater is developing a one-to-many mapping that will permit greater apportionment of cost driver comparisons between years. In most instances a capital project will relate to two or more cost drivers. Unitywater has discussed this mapping with the other distributor-retailers who appear to be more refined in their apportionment methodology. In reality, apportionments are not mechanical and require application of highly informed and still

[redacted]

subjective engineering opinion in order to apportion a specific project between competing outcomes.

The QCA's views on this matter would be appreciated.

8.1.1 QCA INFORMATION REQUIREMENTS FOR CAPITAL EXPENDITURE

The QCA's Information Requirements for 2011/12[34] (clause 5.6) details the disclosure and economic efficiency test against which the capital expenditure program will be assessed.

Within the explanatory notes to the capital expenditure clause, there is a general 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:

[34] SEQ Interim Price Monitoring Information Requirement for 2011/12 June 2011 page 11-13

[redacted]

Table 24 Explanations of variance to previously advised capital expenditure forecasts

Item	Impact	Time/Value
Cancelled or postponed projects	Numerous capital project previously included in Unitywater's budget have been subsequently cancelled or postponed due to revised hydraulic modelling based on a change in growth projections.	$15.0M in cancelled projects. $9.5M in postponed projects.
Refinement of accounting policies and budget processes	Unitywater continues to progress toward more refined and applicable capital planning and accounting policies and budgeting practices	$10.0M operating cost reduction. $10.0M corporate costs to be capitalised.[35]
Previous estimates based on council forecasts	Unitywater's submission to the QCA for 2010/11 relied heavily on council forecasts for operating and capital expenditure. Unitywater is continuing to introduce more rigorous capital and operating expenditure assessment processes and the implementation of those processes is resulting in improved project requirements, designs, sequencing and delivery.	Decrease in forecast capital expenditure of approximately $13M
January 2011 Floods	Unitywater's experience was that several of our contractors redirected some of their crews to flood recovery work in Brisbane to support QUU. This contributed to delays to our program and returning to normal operations. An exact level of capital expenditure that was deferred is difficult to determine with the degree of certainty that the QCA would require of such an estimate. It should be stated that none of Unitywater's STPs ceased operating during the floods, although some operated in by-pass mode and in some instances they were augmented temporarily until flood levels reseeded.	The direct dollar impact on Unitywater was not material in terms of labour, materials or damaged infrastructure. However the conditions did delay the return to normal operations and capital work programs by 6 to 8 weeks, as a conservative estimate. Work on some low lying projects was delayed for up to 12 to 16 weeks due to consistent rain throughout the summer. Unitywater submitted a $1.3M insurance claim in relation to the floods which is currently being assessed.

[35] Unitywater has progressed capitalisation of corporate costs but these have not yet been build into these forecasts.

[redacted]

8.1.2 KEY ASSUMPTIONS AND OTHER FACTORS

Unitywater has applied assumptions and principles to support its capital expenditure forecasts. Details of these assumptions are provided in Section 2 of this submission.

Assumption Or Principle	Application
Forecast growth for demand and customer connections	Refer to Section 6 – Demand
Input cost escalation rates	Refer to Section 2 – Principles and Assumptions

8.1.3 OTHER FACTORS IN CAPITAL EXPENDITURE FORECASTS

Additional factors affecting the capital expenditure forecasts are:

- **Condition and performance of assets in service** – This will directly influence the level and timing of the replacement/renewal program. This in turn can also influence the scope of planned works when other drivers such as growth or compliance are taken into account. Renewals may be delayed or brought forward to coincide with other work if it is more economic to do so.
- **Spare capacity** - The level of spare capacity will influence 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.
- The capital expenditure forecasts reflect the growth in customer numbers and connections. Also reflected is compliance capital augmentation to reduce the frequency of licence conditions being exceeded and to restore the network risk profile to a more acceptable level following several years of expenditure being diverted to address other priorities in council regions.
- Customer service standards and other regulatory obligations are discussed in Section 5. From a capital expenditure perspective, the most important factors driving investment are the environmental impact of wastewater and the volume of waste being treated due to customer numbers and economic activity or commercial trade waste volume (toxicity factor * volume).

8.2 UNITYWATER'S NETWORK CAPITAL EXPENDITURE PROGRAM

Supply and reticulation of drinking water and the collection and treatment of trade waste and sewage constitute Unitywater's core regulated services. These services are asset and operating expenditure intensive. The skill sets required to operate these businesses are highly specialised and these skills are not readily obtainable from alternative service providers.

Prudency and efficiency in assessing capital expenditure programs are a critical to deriving least cost service delivery.

[redacted]

In accordance with the QCA's guidance notes, capital expenditure is recognised and rolled into the Regulatory Asset Base (RAB) for MAR calculation and pricing purposes, in the year of commissioning (ie when the asset commences contributing productive capacity to the network).

This section describes Unitywater's capitalised (as commissioned) expenditure for the current year; forecast expenditure for future years; and briefly sets out the available information for historical capital expenditure by councils. Table 25 (below) provides a summary of the capitalised (as commissioned) capital expenditure as set out in the attached completed information templates.

Table 25 Summary of assets capitalised (as commissioned)

Region and Service ($M)	FY2011	FY2012	FY2013	FY2014
MBRC	**183.4**	**205.2**	**81.0**	**50.4**
Water				
Drinking	45.8	24.8	16.0	18.2
Other Core	4.6	0.5	1.2	5.1
Wastewater				
Via Sewer	129.6	175.5	62.4	26.7
Trade Waste	3.3	4.4	1.4	0.4
Other Core	-	-	-	-
Non-regulated	**-**	**-**	**-**	**-**
SCRC	**63.3**	**63.7**	**93.8**	**225.5**
Water				
Drinking	21.9	27.6	33.4	31.0
Other Core	0.1	0.2	0.6	0.1
Wastewater				
Via Sewer	40.4	34.9	58.4	189.0
Trade Waste	0.9	0.8	1.5	5.3
Other Core	-	-	-	-
Non-regulated	**-**	**0.2**	**-**	**-**
Grand Total	**246.7**	**268.9**	**174.8**	**275.9**

The Ministerial Direction to the QCA requires: actual capital expenditure for the period 1 July 2008 to 30 June 2010; the opening RAB including establishment costs; and developer provided assets; to all be accepted as prudent and efficient. In Unitywater's circumstances those adjustments result in a value of $2,416.7M for the Regulatory Asset Base as at 1 July 2010. Calculation of the opening RAB value has been discussed and provided in an earlier submission to the QCA. Unitywater on 1 July 2010, recognised a number of capital projects from councils (identified as work in progress or WIP). Unitywater submits that the cost of completing transferred WIP projects should not be subject to ex-post prudency and efficiency review, as the costs, and in some instances the contractual arrangements, were largely committed to prior to 1 July 2010.

[redacted]

8.3 HISTORICAL COUNCIL CAPITAL EXPENDITURE BY REGION (2007/08 – 2009/10)

The level of capitalised (as commissioned) expenditure added to the RAB for both the Sunshine Coast and Moreton Bay regions has been verified as part of the RAB roll forward process, for two purposes:

- Participation Agreement determination of proportional interests of participant councils; and
- In accordance with the Minister's directions for establishing 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[36]. This process is outlined in more detail in Section 7.

In summary, additions were reviewed on an asset-by-asset basis and allocated to the QCA's service and asset categories. The supporting documentation to Section 7 clearly delineates between historical additions that were donated assets and those that were the result of capitalised expenditure by the councils.

The capital work in progress (WIP) transferred to Unitywater from Moreton Bay and Sunshine Coast Regional Councils on 1 July 2010 was $184.0M and $21.1M respectively. The WIP was added to the RAB in one of two ways:

- As discussed in Section 7, $150.7M, related to capital projects not yet finished (not commissioned) and that value was included as an opening balance for the applicable ongoing projects.
- The balance of $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.

8.4 FORECAST CAPITAL EXPENDITURE (2011/12 – 2013/14)

Unitywater developed its capital expenditure program for 2011/12 to 2013/14 with reference to the need for the expenditure to meet growth in customer numbers; maintain reliable and secure supply; compliance; asset renewal and replacement; and expected future demand as discussed in Section 6.

Unitywater categorised capital expenditure according to the drivers of growth, renewals, improvements and compliance as required by the QCA. In the case of improvements, this has been further delineated to distinguish between infrastructure improvements to specifically increase service delivery and business efficiency improvements designed to support direct service delivery. 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.

Unitywater has provided its three year capital works program with a breakdown of capital budgets for the period from 1 July 2010 to 30 June 2014. Working papers provide information by project,

[36] Hon Stephen Robertson MP RAB value reference MO/11/772;CTS 04525/11; ME/11/01/159 dated 7 June 2011

[redacted]

cost driver, asset class, service and region. More detailed project specific supplementary information can be made available as appropriate once the QCA (and its appointed consultant) commences the review of capital expenditure in detail.

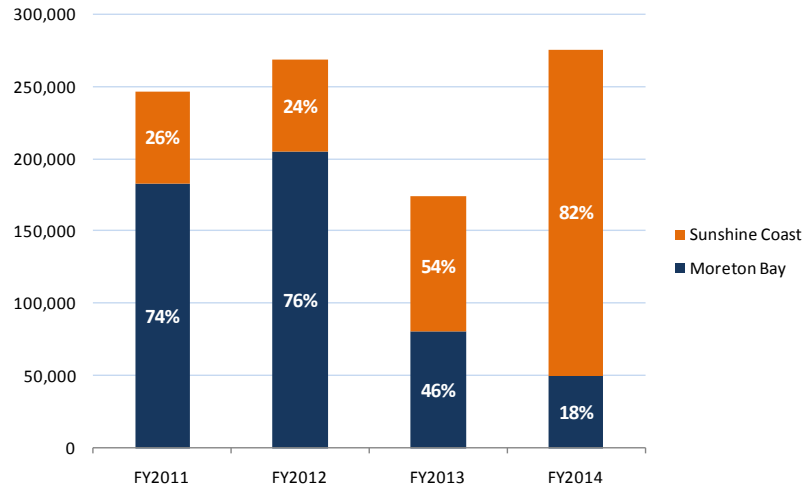
Consistent with the mid-year commissioning assumption discussed in Section 7, all forecast capital expenditure and donated assets have been included in the RAB at the midpoint of the assets respective commissioning years. Capital expenditure comprises of both ongoing capital projects and renewal projects.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

- Ongoing 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[37] 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. Any expenditure that occurs after the commissioning date, such as landscaping or fencing, is capitalised in the year it is spent; and
- Renewal projects (projects which require capital expenditure on a yearly basis) are capitalised each year regardless of commissioning date.

The additions to the RAB, as outlined in Section 7, include both the capitalised assets and those donated by developers. Donated assets can be planned trunk infrastructure, in lieu of cash contributions, or non-trunk assets that make up the service infrastructure within developments. Total commissioned capital expenditure is approximately even between the Moreton Bay and Sunshine Coast region over the period 2010/11 to 2013/14 with 54% and 46% occurring in the Moreton Bay and Sunshine Coast regions respectively.

The majority of the commissioned expenditure between 2010/11 and 2011/12 is in the Moreton Bay region (75%). This is in contrast to the forecast expenditure from 2012/13 to 2013/14, where 71% of the expenditure is forecast to be commissioned in the Sunshine Coast region, as illustrated in Figure 4 (below).

Figure 4 Total capital expenditure by region (2010/11 – 2013/14)



[37] UnitywaterCapexFinal v10.xlsb

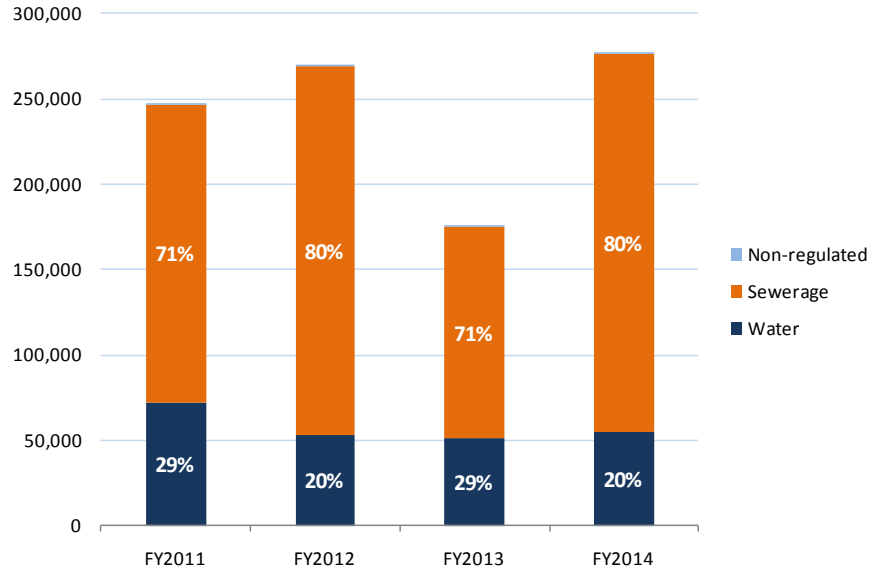
[redacted]

This result reflects the higher WIP balance for the Moreton Bay region compared to the Sunshine Coast region as at 30 June 2010, being $184.0M and $21.1M respectively. The large proportion of capital expenditure commissioned in the Moreton Bay region for the period 2010/11 to 2011/12 is reflective of this WIP being completed and capitalised over the periods to 2011/12.

The large proportion of capital expenditure in the Sunshine Coast region post 2012/13 reflects large capital projects being commissioned in that period.

Across both regions, sewage services account for a larger proportion of capital expenditure than water services. This is illustrated in Figure 5 (below) with 76% of total expenditure for the period relating to the provision of sewage treatment and trade waste treatment services.

Figure 5 Total capital program by service (2010/11 – 2013/14)



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 a reissue of licence conditions that apply to 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.

Table 26 (overleaf) illustrates developer donated and Unitywater capitalised expenditure by asset class.

Table 26 Assets capitalised by region and asset class (including developer provided assets)

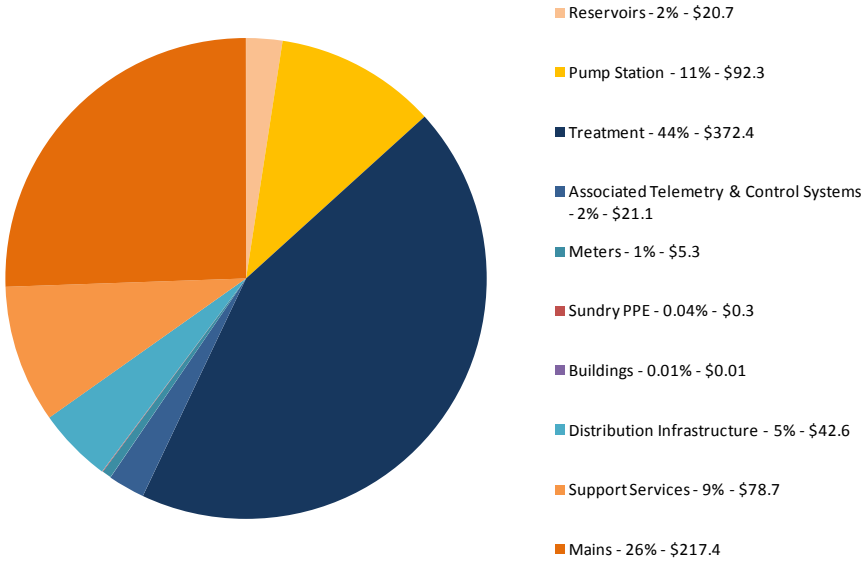
Capitalised by Region ($M)	Asset Class	FY2011	FY2012	FY2013	FY2014
MBRC	Reservoirs	7.8	2.0	-	-
	Pump Station	45.0	16.9	6.2	1.0
	Treatment	21.7	114.0	37.9	1.4
	Associated Telemetry & Control Systems	1.2	1.9	-	9.4
	Meters	0.6	2.3	-	0.4
	Corporate Systems	-	-	-	-
	Sundry PPE	0.1	-	-	-
	Buildings	0.1	-	-	-
	Distribution Infrastructure	12.0	8.2	4.1	3.0
	Support Services	7.6	7.7	14.8	3.5
	Mains	80.5	39.5	2.8	12.7
	Total capital expenditure	**176.5**	**192.5**	**65.8**	**31.3**
	Developer Provided	6.8	12.7	15.2	19.1
	Total Capital Program	**183.4**	**205.2**	**81.0**	**50.4**
SCRC	Reservoirs	0.3	3.8	6.9	-
	Pump Station	8.6	10.4	2.2	2.0
	Treatment	5.4	1.1	22.5	168.4
	Associated Telemetry & Control Systems	2.5	1.8	-	4.3
	Meters	1.8	0.2	-	-
	Sundry PPE	0.2	-	-	-
	Distribution Infrastructure	3.3	6.1	2.7	3.0
	Support Services	5.4	8.5	26.9	4.3
	Mains	21.1	17.8	17.5	25.6
	Total capital expenditure	**48.6**	**49.9**	**78.7**	**207.6**
	Developer Provided	14.7	13.8	15.1	17.9
	Total Capital Program	**63.3**	**63.7**	**93.8**	**225.5**
Unitywater	Reservoirs	8.1	5.8	6.9	-
	Pump Station	53.6	27.4	8.4	3.0
	Treatment	27.1	115.1	60.3	169.8
	Associated Telemetry & Control Systems	3.7	3.7	-	13.7
	Meters	2.3	2.5	-	0.4
	Sundry PPE	0.3	-	-	-
	Buildings	0.1	-	-	-
	Distribution Infrastructure	15.3	14.4	6.9	6.0
	Support Services	13.0	16.2	41.7	7.8
	Mains	101.6	57.3	20.3	38.3
	Total capital expenditure	**225.1**	**242.4**	**144.5**	**239.0**
	Developer Provided	21.6	26.5	30.3	37.0
	Total Capital Program	**246.7**	**268.9**	**174.8**	**275.9**

Note: Table excludes QCA categories which have no data as a result of rounding to ($M)

[redacted]

As illustrated in Table 26: treatment, mains and pump stations are the primary asset classes requiring capital expenditure for the period 2010/11 to 2013/14 with 44%, 26% and 11% respectively. This can be observed in Figure 6 (below) which illustrates total capital expenditure by asset class for the period 2010/11 to 2013/14.

Figure 6 Total capital expenditure by asset class (2010/11 – 2013/14)



8.5 CAPITAL PROGRAM PLANNING – DRIVERS OF EXPENDITURE

Table 27 (below) illustrates Unitywater's capitalised expenditure (including developer provided assets), by region and cost driver.

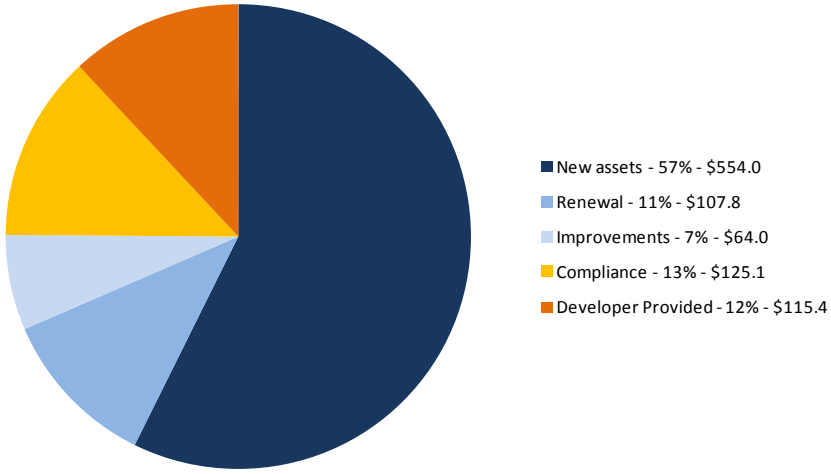
Table 27 Assets capitalised by region and cost driver (including developer provided assets)

Capitalised By Region ($M)	Cost Driver	FY2011	FY2012	FY2013	FY2014
MBRC	New assets	124.3	150.1	16.2	9.9
	Renewal	17.1	20.1	12.0	9.8
	Improvements	17.6	4.4	4.5	9.9
	Compliance	17.6	18.0	33.1	1.8
	Total capital expenditure	**176.5**	**192.5**	**65.8**	**31.3**
	Developer Provided	6.8	12.7	15.2	19.1
	Total Capital Program	**183.4**	**205.2**	**81.0**	**50.4**
SCRC	New assets	26.3	20.9	41.6	164.7
	Renewal	11.7	16.3	9.8	11.3
	Improvements	3.6	4.2	16.9	2.9
	Compliance	7.0	8.5	10.4	28.7
	Total capital expenditure	**48.6**	**49.9**	**78.7**	**207.6**
	Developer Provided	14.7	13.8	15.1	17.9
	Total Capital Program	**63.3**	**63.7**	**93.8**	**225.5**
Unitywater	New assets	150.5	171.0	57.9	174.6
	Renewal	28.8	36.3	21.7	21.0
	Improvements	21.2	8.6	21.4	12.8
	Compliance	24.6	26.5	43.5	30.5
	Total capital expenditure	**225.1**	**242.4**	**144.5**	**239.0**
	Developer Provided	21.6	26.5	30.3	37.0
	Total Capital Program	**246.7**	**268.9**	**174.8**	**275.9**

[redacted]

As indicated in Table 27 there is significant expenditure arising from growth over the period (new assets). Minimal improvement capital expenditure is forecast over the period, on the basis that existing service levels are assumed to be maintained over the period. Unitywater has classified expenditure required to meet existing service levels as compliance expenditure, as it seeks to remedy instances where services do not meet current standards. Figure 7 (below) illustrates the breakdown of capital expenditure by cost driver.

Figure 7 Total capital program by cost driver (2010/11 – 2013/14)



As indicated above the cost drivers of capital expenditure in the capital planning process for Unitywater are growth 57%, renewals 11%, compliance 13%, service improvements 7% and business efficiency improvements. The process used to derive capital works for each cost driver is summarised in section 8.5.1 to 8.5.5 inclusive. Clearly the cost driver mapping reflects that the assets inherited from the previous council owners required substantial upgrading reflecting their poor condition.

The majority of capital expenditure relates to new assets that are mapped on a one-to-one basis of projects-to-cost driver. Unitywater is developing a one-to-many mapping that will permit greater apportionment of cost driver comparisons between years. In most instances a capital project will relate to two or more cost drivers. Unitywater has discussed this mapping with the other distributor-retailers who appear to be more refined in their apportionment methodology. In reality apportionments are not mechanical and require application of highly informed and still subjective engineering opinion in order to apportion a specific project between competing outcomes.

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 15 (below).

Diagram 15 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 modeling 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.

[redacted]

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 16 Capital Expenditure Process for Renewals

Both the Moreton Bay and Sunshine Coast Regional Councils maintain GIS asset databases for all water and sewerage assets. However, there is considerable work still to be done to consolidate both regions' databases. This is proposed to be achieved with the GIS consolidation project scheduled for 2011/12.

The databases that exist include physical attributes, as well as age and estimates of serviceable life. Although estimates of remaining serviceable life are generally based on desktop assumptions, rather than field condition assessments, the current system does allow a financial assessment to be made in relation to renewal expenditure projections. Unitywater is in the process of improving its asset condition and performance assessments, this includes the implementation of a new asset management system.

Some condition assessment is performed on assets, although this varies depending on the asset and location. A common process is being developed for use across the extended region. Some brief comments on the current approach are 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 any customer service standards. These replacements are typically 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

[redacted]

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.

Both the Moreton Bay and Sunshine Coast regions have recently installed asset management systems involving the implementation of field computing and capture of system operational data. It is expected that the data provided by this system will assist in the development of systematic approaches to asset condition assessment and asset maintenance or renewal.

8.5.3 SERVICE IMPROVEMENTS PERFORMANCE

Improvements relate to expenditures associated with improving service levels and reliability to meet customer preferences.

Unitywater is currently 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 direct service delivery by driving more efficient and effective delivery of support functions. As part of the process of bringing together two separate council businesses, Unitywater has identified a number of improvement opportunities that have the potential to have a material impact on the cost of our support structures. 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.

These projects are primarily being managed through a program called ‘Paramount’.

8.5.5 COMPLIANCE

Compliance relates to expenditure required to meet legislative standards. Unitywater has interpreted this to also include expenditure required to meet pre-existing service levels (rather than improved service levels).

Compliance projects are typically assessed and determined on a case-by-case basis.

[redacted]

Diagram 17 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 frequently 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.

Solutions to compliance related issues are developed through planning investigations. Once the solution has been identified, the proposed works are included in the draft capital expenditure program for approval.

8.6 CAPITAL PLANNING PROCESS AND PRIORITISATION

The capital planning process and method for prioritisation is discussed below.

8.6.1 CAPITAL PRIORITISATION MODEL

A prioritisation model is used to assess projects across the region. This risk based model 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.

A review of the prioritisation model is proposed in the 2011/12 financial year. It is envisaged that a revised model would incorporate both project risk and value to the business assessment.

8.6.2 EXPENDITURE APPROVAL PROCESSES

Capital expenditure for 2010/11 was approved by the Unitywater Board as part of its overall budget approval process. Unitywater has established a committee of the Board, the Capital Works Committee, to monitor and review the capital expenditure program and its delivery. The Capital Works Committee meets monthly to consider progress against timelines and budget and make recommendations to the full Board as required on project approvals, variations or budget changes. The committee also approves expenditure above the CEO's delegation.

The Capital Works Committee assists the Board to discharge its corporate governance responsibilities to exercise due care, diligence and skill in the approval of strategic capital works; annual capital works expenditure; and significant capital works commitments.
It also assists with compliance with regulatory principles and applicable licence conditions as applied by the relevant environmental regulator; and implementation of Unitywater's Business Sustainability Policy.

This committee meets monthly to consider progress against timelines and budget and makes decisions as required on variations or budget changes; it also approves expenditure above the CEO's delegation.

In addition, Unitywater has established an Asset Steering Committee to review and endorse investment decisions for Capital and Operations projects.

This committee reports to the Executive Management Team and has recently recommended endorsement of Unitywater's Capital Works Justification Process, advising that it would satisfy Unitywater's strategic and corporate objectives, and the requirements of the economic regulator.

Unitywater is currently revising the supporting documentation, templates, models and assessment of the governance structures that underpin the process of approving capital expenditure. These processes will be refined during the coming financial year as structural changes are implemented. Consequently, the QCA should consider current practices in light of Unitywater's emerging capabilities. Other information required by the QCA in relation to approval processes, linkages to strategic asset management plans, option analysis and procurement processes will be addressed by Unitywater during the QCA's detailed review of capital expenditure.

Unitywater welcomes any feedback the QCA may have on our intended capital expenditure supporting documentation during the establishment of new processes.

[redacted]

8.6.3 NON SYSTEM CAPITAL

The main non system capital expenditure requirements are 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 utilise attrition to reduce identified areas of over-supply, 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
New Additional Vehicles	0.1	0.1	0.1
Fleet Renewals – Light	5.9	2.0	3.4
Fleet Renewals – Heavy	0.7	0.3	0.5
Fleet Renewals – Trucks	1.9	0.8	1.2

  Through the Unitywater plant and fleet rationalisation process, to date, three trucks, one backhoe, two wheel loaders, one skid steer loader, one tractor-slasher and one 16 tonne excavator have been disposed without replacement. These rationalisations have shown improvements in plant and truck utilisation. Unitywater is monitoring its replacement program; utilisation rates, and expects further improvements as some trucks and plant are replaced with smaller assets that can be utilised for a broader range of operational requirements.

- **ICT** - Program Paramount represents the establishment of key organisational capabilities, which will deliver significant improvements in operating efficiencies. Major ICT initiatives are scheduled in 2011/12 at a cost of $12.8M and include an Electronic Data Records Management System; Enterprise Data Warehouse / Services (integration); GIS consolidation project; Consolidated Asset Management System; Unity network single domain project; and an upgrade to the SCADA system.

- **Retail** - 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 is being installed in 2011/12 at a cost of approximately $9M.

- **Tools and Equipment** - A comprehensive review of requirements similar to fleet is being undertaken. Information from the new Asset Management System will be used to set the most efficient tools and equipment levels.

[redacted]

8.6.4 FUNDING THE CAPITAL WORKS PROGRAM

Funding of capital works can be sourced internally or externally. The external sources have historically been government grants and subsidies, developer cash contributions, trunk assets donated in lieu of cash and non-trunk assets built by developers when the development proceeds. Non-trunk assets from within a development will continue to be provided at the same levels as they had previously. Other external funding sources have however been significantly reduced. The government has ceased the 40% grant and subsidy and has also 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.

The other sources of funding are debt through loans, new equity or use of retained earnings. As there are no plans for new equity, this leaves the remaining two sources. Unitywater will need to balance its use of loans and retained earnings to fulfil the objectives of sustainability and providing returns to the participating councils.

8.6.5 VARIATIONS IN PREVIOUS FORECASTS FOR CAPITAL EXPENDITURE

Table 28 (below) illustrates variances in capital expenditure by region and cost driver as provided in the 2010/11 submission compared to that provided in the current submission. The total variances in forecast expenditure from that provided in the 2010/11 submission are 14%, 2% and 24% for 2010/11, 2011/12 and 2012/13 respectively.

It should be noted that the 2010/11 budget was prepared by Unitywater on the assumption that the historical figures and budgets prepared by council included robust figures. The current budget has been prepared on the basis of Unitywater's view on future capital requirements which is lower than the previous council-based budgets.

[redacted]

Table 28 Variance in forecast capital expenditure by region and cost driver

Variance by Region ($M)	Cost Driver	FY2011	FY2012	FY2013
MBRC	New assets	10.3	84.8	(7.5)
	Renewal	1.6	2.4	(0.1)
	Improvements	(44.0)	(5.1)	(0.5)
	Compliance	9.5	1.0	23.3
	Total capital expenditure	**(22.6)**	**83.0**	**15.1**
	Developer Provided	(6.8)	0.6	2.7
	Total Capital Program	**(29.4)**	**83.5**	**17.8**
SCRC	New assets	(8.1)	(78.6)	(94.2)
	Renewal	2.8	4.1	(2.1)
	Improvements	(9.8)	(10.2)	12.0
	Compliance	5.2	6.8	9.5
	Total capital expenditure	**(9.9)**	**(77.8)**	**(74.8)**
	Developer Provided	(2.4)	0.2	1.6
	Total Capital Program	**(12.4)**	**(77.7)**	**(73.2)**
Unitywater	New assets	2.2	6.2	(101.7)
	Renewal	4.4	6.5	(2.1)
	Improvements	(53.8)	(15.3)	11.5
	Compliance	14.7	7.7	32.7
	Total capital expenditure	**(32.5)**	**5.2**	**(59.7)**
	Developer Provided	(9.2)	0.7	4.3
	Total Capital Program	**(41.7)**	**5.9**	**(55.4)**
Variance from 2010/11 submission (%)		**(14.0)**	**2.0**	**(24.0)**

The capital expenditure forecasts provided in the 2010/11 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 completing its own capital forecasts 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 a year's operations to obtain a greater understanding of its area of operation and the business's capital needs for the forecast period, resulting in a more accurate prediction of future expenditure than previously possible based on council forecasts;
- Unitywater achieving various efficiencies and sourcing alternatives to expenditure than had been previously forecast by the individual councils (as evidenced by the Brendale

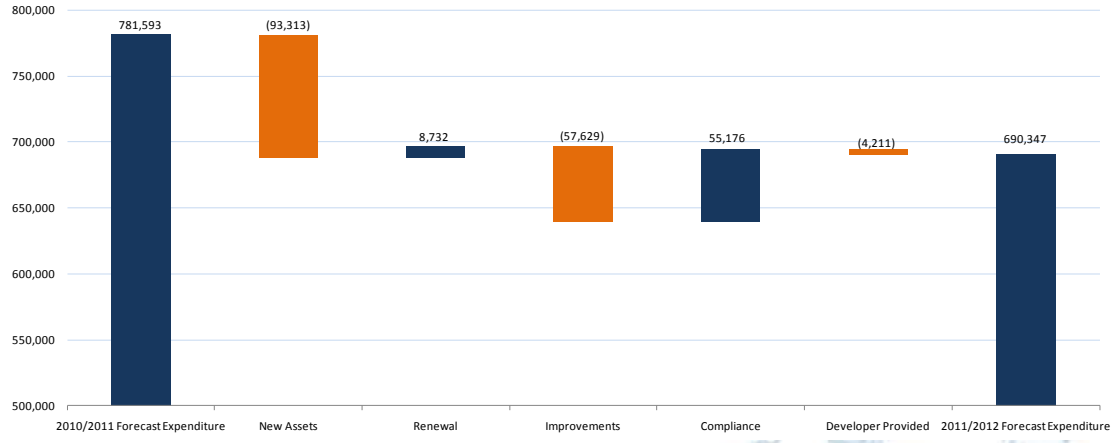
[redacted]

STP capital expenditure deferral by pumping sewage into QUU's network for treatment); and

- The rigorous justification process applied by the Capital Works Committee put in place to justify the needs and the scope of major projects. This includes a 'needs analysis' and 'business case' which has to be completed for each project.

The variance by cost driver from the 2010/11 submission to the current submission for the period 2010/11 to 2012/13 is illustrated in Figure 8 (below). As can be observed the net variance over the period is a decrease of $91.2M in forecast capital expenditure across the five cost drivers.

Figure 8 Variance by cost driver (2010/11 – 2012/13) (000's)



The decrease in capital expenditure between the 2010/11 and the current submission is primarily attributable to a large reduction in forecast new assets and improvement expenditure over the period. Minimal improvement expenditure is now forecast on the basis that existing service levels are expected to continue over the period. Capital expenditure relating to the maintenance of existing service levels has been classified as compliance expenditure in the current submission. This also explains the $55.2M increase in forecast expenditure for the compliance cost driver.

The large reduction in forecast new assets can be partially explained by numerous cancelled or postponed projects. These cancelled or postponed projects occurred post the establishment of the 2010/11 budget which was used to complete Unitywater's 2010/11 submission. Cancelled projects resulting from revised hydraulic modelling, based on a change in growth projections, have resulted in a further $6.2M decrease in forecast capital expenditure.

A total of 41 projects were postponed during 2010/11 due to the factors discussed previously. The most notable of these projects was the Northern Services Centre which resulted in a reduction of $9.5M in forecast capital expenditure. The construction of several large water and sewer mains were also postponed (for at least one year) due to the revised hydraulic modelling based in a change in growth projections.

9. CONTRIBUTED / DONATED ASSETS

The return of assets (depreciation) and return on assets (asset base * 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 holds true whether the asset offset or the revenue offset method for recognition of this capital revenue are used.

This capital revenue has usually come from either the 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[38].

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 and 2009/10. 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.

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.

[38] *Sustainable Planning (Housing Affordability and Infrastructure Charges Reform) Amendment Act 2011*

9.3 FORECAST FUNDING LEVELS

The information for 2010/11 is based on Unitywater's third 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 results until mid-June 2011 were used for this purpose. 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 mid-June for 2010/11. The basis for these calculations is provided as part of the supporting documentation for this submission.

9.4 RECEIPTS FOR EACH REGION

Table 29 (below) indicates the level of receipts for the Moreton Bay region, as currently estimated.

Table 29 Level of receipts for the Moreton Bay region, as currently estimated

$M	Classification	FY2011	FY2012	FY2013	FY2014
Water					
	Cash contribution	4.7	5.8	7.2	12.3
	Donated assets	2.9	4.9	5.7	7.9
	Total	**7.5**	**10.7**	**12.9**	**20.3**
Wastewater					
	Cash contribution	6.5	8.0	10.5	13.7
	Donated assets	4.0	7.8	9.4	11.2
	Total	**10.5**	**15.9**	**19.9**	**24.9**

Table 30 (below) indicates the level of receipts for the Sunshine Coast region, as currently estimated.

Table 30 Level of receipts for the Sunshine Coast region, as currently estimated

$M	Classification	FY2011	FY2012	FY2013	FY2014
Water					
	Cash contribution	8.5	10.5	11.4	12.3
	Donated assets	5.2	5.1	5.6	7.1
	Total	**13.7**	**15.6**	**16.9**	**19.3**
Wastewater					
	Cash contribution	15.5	19.2	20.7	22.3
	Donated assets	9.5	8.7	9.6	10.8
	Total	**25.0**	**27.9**	**30.3**	**33.1**

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 move to the asset offset approach for at least donated assets when and if this is in the best interests of its customers.

[redacted]

10. DEPRECIATION AND ASSET LIVES

This section presents the methodology applied in determining standard asset lives for individual assets and for calculating depreciation on assets within the submission.

Standard asset lives are provided for both new and existing assets, as presented in template 5.8.1.1 and 5.8.1.2. Depreciation has been calculated as can best be determined historically (2007/08 – 2009/10), as well as forecast depreciation from expected future capital expenditure and capital donations (2010/11 – 2013/14). The completed templates provide more detailed information, as required by the QCA. Information has been provided on an individual asset basis with the exception of information gaps noted earlier in relation to the RAB roll-forward.

Forecast depreciation on capitalised and donated assets is applied using a 'mid-year' commissioning assumption. This implies that all forecast capitalised and 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 in the commissioning year. This assumption is consistent with the QCA's guidelines.

Straight line depreciation has been applied in all cases.

10.1 CARDNO RAB STANDARD ASSET LIVES

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

In all cases the tax useful life has been assumed to be the same as the regulatory useful life. This assumption may be revised at a later point by Unitywater pending advice from consultants. Accordingly, Unitywater has adopted the regulatory RAB asset lives for regulatory tax calculation purposes.

For regulatory purposes Unitywater has reviewed and updated the standard lives for asset classes. In the QCA's final report for the 2010/11 interim price monitoring review, note was made that some categories of assets were similar but had different standard asset lives.

Unitywater commissioned Cardno, an engineering consulting firm, to review its asset lives for categories of water and sewerage assets.[39] 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 – 2013/14).

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

[39] Cardno Report, February 2011: Valuation of Water Supply, Recycled Water and Wastewater Assets; Appendix C – Useful Lives

Unitywater's Asset Management System and the condition-based replacement plan. Unitywater considers the application of a conservative two year life appropriate until better condition based evidence becomes available.

Unitywater originally proposed a standard life of 45.5 years for establishment costs, which reflected the weighted average remaining life of assets as at 30 June 2010. Allconnex Water and QUU both adopted a five-year standard life. Given the disparity, Unitywater has decided to reduce the remaining useful life (RUL) to eight years for establishment costs. The eight-year useful life has been selected to more closely align with the other distributor-retailers and also with section 99BX 1(a) of the *Fairer Water Prices for SEQ Amendment Bill 2011*, that requires participant local councils to publish price mitigation plans to 30 June 2019. Establishment costs had an approximate value of $13.1M at 1 July 2010.

Asset lives are specified in templates 5.8.1.1 and 5.8.1.2 of this submission. 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:

*New Assets useful life per asset class = ∑ (RAB * useful life) / RAB*

*Existing Assets RUL per asset class = ∑ ((RAB – Residual value) * RUL) / (RAB – Residual value)*

[redacted]

The standard lives by asset category are summarised in Table 31 (below).

Table 31 Standard asset lives (New and Existing Assets)

New Assets – Both Regions

	Water		***Wastewater***		***Non-Regulated***
Category	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	58	58	58	58	-
Corporate systems	13	13	13	13	-
Sundry PPE	11	-	10	10	-
Land	-	-	-	-	-
Building other	20	-	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	-	-	-	-	-

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

	Water		*Wastewater*		*Non-Regulated*
Category	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

	Water		***Wastewater***		***Non-Regulated***
Category	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	52	42	53	-	-
Establishment costs	-	-	-	-	-
Unallocated cash	-	-	-	-	-

10.2 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.

Forecast depreciation (2010/11 – 2013/14)

- Forecast depreciation on capitalised assets for the period 1 July 2010 to 30 June 2014 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 2010;
- As previously mentioned, a two-year 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;
- Forecast depreciation on developer donated assets for the period 1 July 2010 to 30 June 2014 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;
- 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;

Depreciation = (Opening RAB (WDV) + Indexation)/Useful life + ((Addition + Indexation)/Useful life)/2

[redacted]

A summary of regulatory depreciation by region and service is provided in Table 32 (below).

Table 32 Depreciation by Region and Service

Region and Service ($M)	FY2011	FY2012	FY2013	FY2014
MBRC	**48.7**	**54.3**	**57.2**	**60.2**
Water				
Drinking	16.3	17.5	17.9	18.2
Other Core	1.6	1.8	1.9	2.2
Wastewater				
Via Sewer	30.5	34.1	36.5	38.7
Trade waste	0.8	0.9	1.0	1.0
Other Core	-	-	-	-
Non-Regulated				
Non-Regulated	-	-	-	-
SCRC	**39.3**	**41.1**	**39.1**	**43.7**
Water				
Drinking	15.8	17.1	14.9	16.1
Other Core	0.2	0.3	0.3	0.3
Wastewater				
Via Sewer	22.6	23.1	23.2	26.5
Trade waste	0.7	0.7	0.7	0.8
Other Core	-	-	-	-
Non-Regulated				
Non-Regulated	-	-	-	-

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

As stated, Unitywater has adopted useful lives for capitalised assets on an individual asset basis, instead of adopting the broader categorisation of asset types defined by the QCA, which can result in assets with lives ranging from 20 to 100 years being grouped together and assigned a single average life.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11. INDEXATION OF ASSET BASE

This section sets out the indexation applied in the RAB roll forward. As required by the QCA, the ABS Consumer Price Index (all groups, Brisbane) has been used being 2.02% for 2008/09.

For 2009/10, the QCA information requirements prescribed use the ABS Consumer Price Index (all groups, Brisbane), or the Queensland State Budget forecast for the period. For the interim RAB, Unitywater has adopted the 2009/10 Queensland State Budget Inflation Forecast, which was 2.50%. Post 2010 CPI increases are to be applied for updating RAB roll-forward values.

Unitywater applied indexation of 3.07% in forecasting the RAB values for 2010/11 and in each subsequent year of the submission. This forecast CPI inflation was determined by the difference between the RBA return on the market rate for five year bonds and five-year capital indexed bonds. The averaging period was the 20 days ending on 15 June 2011.[40] The indexation factors applied by Unitywater are as illustrated in Table 33 (below).

Table 33 CPI for RAB Indexation

	FY2009	FY2010	FY2011 – FY2014
CPI indexation rate	2.02%	2.50%	3.07%

Unitywater has populated the RAB roll-forward in accordance with the QCA preference for deriving inflation. However, Unitywater considers that there are some fundamental issues raised by using a different averaging period to derive an inflation estimate to the averaging period used to derive the WACC, for the same set of regulatory decisions and submissions. Unitywater considers the inconsistency, is compounded by use of the Reserve Bank of Australia's forecast for CPI[41] for deriving cost escalation factors as indicated in Table 34 (below).

Table 34 Reserve Bank of Australia Inflation Forecasts, *Statement on Monetary Policy*, May 2011

	June 2011	June 2012	June 2013
CPI inflation	3.5	2.5	3.0
Underlying inflation	2.5	3.0	3.0

[40] Selected bonds for interpolation were TB119; TB 130; TI405 and TI406
[41] Reserve Bank of Australia May 2011 Statement on Monetary Policy page 63

[redacted]

[redacted]

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'[42].

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

The truncated two week consultation period during the 2010/11 interim price monitoring review did not provide Unitywater with sufficient time to respond to this and other matters. Unitywater had also anticipated that it would have the opportunity to submit its positions in detail as part of the industry-wide WACC review that the QCA has stated it will undertake. The scope and timing of this review remains unclear and Unitywater is uncertain about whether there will be sufficient time to complete this review, including sufficient time for stakeholder consultation, prior to 1 March 2012.

Unitywater interprets the Minister's amended Direction as constraining the QCA to use 9.35% in the 2011/12 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 review (notwithstanding its concerns regarding timing mentioned above).

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.

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. This overturned the decision by the AER to apply a value of 0.5, which is also adopted by the QCA. This value was calculated as the product of 0.7[43] (dividend distribution rate) and 0.35[44] (theta). 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

[42] Queensland Government Gazette Vol 357 No68 Wednesday 29 June 2011
[43] Application by Energex Limited (Distribution Ratio (Gamma)) (No 3) [2010] ACompT 9 (24 December 2010)
[44] Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9 (12 May 2011)

[redacted]

the current regulatory framework there is no clear mechanism to deal with significant, unforeseen events that occur during the course of the regulatory period. 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 pass-through events.

In the absence of an accompanying deterministic regulatory framework, Unitywater suggests that the QCA consider Unitywater's proposed MAT scheme in addition to defined pass-through events.

c) **Term structure**: the QCA's WACC methodology described in its final 2010/11 interim price monitoring decision calculates 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 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, 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.

A joint consultancy between the three distributor-retail entities was commissioned during the 2010/11 interim price monitoring review and recommended an appropriate range for WACC. The consultant's report was submitted in response to the QCA's draft decision. That material in addition to new material may be updated and submitted to the QCA-wide review of its WACC methodology[45].

[45] Final Report SEQ Interim Price Monitoring for 2010/11 Part B Detailed Assessment March 2011 Appendix B pg 253

[redacted]

13. OPERATING EXPENDITURE

This section describes Unitywater's forecast operating expenditure for the period to 30 June 2014.

Unitywater incurs operating expenditure in order to provide the core water and sewage treatment services discussed in Section 1. Unitywater forecast operating expenditure includes:

- The cost of purchasing bulk water which is on a specified price path by region for Moreton Bay and Sunshine Coast (the State Government has not CPI capped the bulk water price);
- Distribution and retail expenditure comprising employee wages and salaries, materials and services (including chemicals, electricity and sludge handling expenses), 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 to operate a best practice water and sewerage service business.

Unitywater considered its operating expenditure forecast taking into account:

- Expected demand for water reticulation and sewerage services;
- Expenditure required to maintain the quality, reliability and security of supply of water and sewerage services to Moreton Bay and Sunshine Coast customers;
- Expenditure to comply with sewage treatment plant wastewater discharge licence conditions issued by the Department of Environment and Resource Management (DERM); and
- Contribution towards improving the health of our waterways, estuaries, fisheries, and the Moreton Bay Marine Park in order to support positive environmental outcomes, regional industry and tourism.

Unitywater is committed to passing cost reductions directly to customers in full and as soon as practicable. Unitywater would like to have these cost reductions recognised by QCA, together with an acknowledgement that Unitywater has exceeded QCA's deemed efficiency factors and included these cost reductions in operating expenditure forecasts up to June 2014. As such, no additional efficiency factor is required to be applied to this forecast period.

Unitywater considers that some of the early efficiencies made by the business may not be sustainable in perpetuity. This is a result of not having sufficient historical performance data from which to assess the impacts. This recognises that Unitywater is developing its knowledge of the operating costs and condition and performance of its assets, systems and processes. In addition, the organisation is working within an evolving regulatory framework, and faces unique challenges in its area of operations. As a result, there is a higher degree of uncertainty about our operating expenditure forecasts than could be expected for a mature utility business.

13.1 BOARD APPROACH TO EFFICIENCY

Unitywater has a commercially focused Board which has efficiency expectations that meet or exceed the QCA's deemed factors. Unitywater submits that as the business matures and finds its commercial operational patterns, it should not be penalised by ongoing requirements to exceed

[redacted]

its early voluntary efficiencies. Unitywater suggests that as the business matures, QCA could consider an incentive-based efficiency scheme, with a term that anticipates and accommodates pursuit of being a best practice provider of water and sewerage services.

13.2 EFFICIENCY FACTOR ALREADY APPLIED TO FORECASTS

Unitywater's 2011/12 budget forecasts include operational efficiencies and the Board remains committed to achieving further efficiencies across the organisation and in the provision of water reticulation and sewerage treatment services. The Board's expectations are being incorporated into performance agreements with executives and are reinforced through the process for assessment of business cases seeking expenditure approval.

In developing the 2011/12 budget, the Board applied a $10 million reduction to operating expenditures, which will be achieved through efficiency, deferral, cancellation, scope correction and reprioritisation. This has been achieved within the constraints of the current workforce framework, in place until June 2013. This figure exceeds QCA's 2% deemed efficiency and Unitywater would be pleased to provide more detail about these planned savings at QCA's request.

Actual operating expenditure for the year ended 30 June 2011 was below the forecast generated in Unitywater's first price monitoring submission. The differences reflect in part the emerging level of sophistication in forecasting; the challenging 2010/11 seasonal conditions and in particular the floods that delayed normal operational expenditures; slightly lower than anticipated demand due to permanent water conservation measures and above average rainfall; and the Board's involvement in actively seeking efficiencies.

13.3 BULK WATER PRICE NOT CAPPED TO CPI

The State Government introduced legislation that placed a CPI cap on distributor-retailer prices that did not extend to the State Government set bulk water price. 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.

As discussed in Section 6, the level of system losses affects the bulk water costs and the revenue that needs to be recovered through the billed consumption. Unitywater has commenced a program to address the cause of losses. The level of losses forecast for the period 2011/12 to 2013/14 is less than the actual losses recorded for the prior period.

13.4 WATER AND SEWERAGE TARIFFS CAPPED TO CPI

Recovery of distributor-retailer operating expenditure is limited by the imposed CPI price cap until 30 June 2013 (the CPI increase for 2011/12 was 3.6%). Unitywater applied CPI price increases to tariffs notwithstanding the availability under the legislation to increase prices by a higher percentage for business customers with water consumption higher than 100 kL pa. Unitywater may review the applicable price increment for large business customers in future periods.

[redacted]

Unitywater's operating expenditures are estimated to increase by 10.5% in 2011/12 compared to 2010/11 (excluding bulk water). This increase is driven by increases in customer numbers and consumption forecasts, as well as escalation in unit costs.

13.5 CAPITALISATION POLICY

Unitywater adopted a conservative approach to its capitalisation policy when it commenced operations on 1 July 2010. Unitywater is actively reviewing its capitalisation policy, particularly in the following areas:

- 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. While the capitalisation review is still in a preliminary phase, $10.0M per annum has already been identified as attributable to delivery of the capital works program. As Unitywater matures and develops greater understanding of its operational cycle, the capitalised value may increase.

Unitywater is still in the formative stages of this review and therefore has not incorporated this value into its forecasts. Unitywater will continue to progress its capitalisation approach and will provide the QCA with revised forecasts inclusive of any change in due course.

13.6 QCA INFORMATION REQUIREMENTS FOR OPERATING EXPENDITURE

The QCA's information requirements for 2011/12[46] detail the disclosures related to operating expenditure in clause 5.11. Unitywater has included in this submission and the related templates information to meet these requirements.

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.

[46] SEQ Interim Price Monitoring Information Requirements for 2011/12 June 2011 page 14

[redacted]

Table 35 Explanations of variance to previously advised operating expenditure forecasts.

Item	Impact	Time/Value
Cancelled or postponed projects	Numerous capital project 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 toward more refined and applicable capital planning and accounting policies and budgeting practices	$10.0M operating cost reduction. $10.0M corporate costs to be capitalised.[47]
Previous estimates based on council forecasts	Unitywater's submission to the QCA for 2010/11 relied heavily on council forecasts for operating and capital expenditure. Unitywater is continuing to introduce more rigorous capital and operating expenditure assessment processes and the implementation of those processes is resulting in improved project requirements, designs, sequencing and delivery.	The effect on operating expenses as a result of these updated estimates is difficult to determine.
January 2011 Floods	Unitywater's experience was that several of our contractors redirected some of their crews to flood recovery work in Brisbane to support QUU. This contributed to delays to our program and returning to normal operations. An exact level of capital expenditure that was deferred is difficult to determine with the degree of certainty that the QCA would require of such an estimate. It should be stated that none of Unitywater's STPs ceased operating during the floods, although some operated in by-pass mode and in some instances they were augmented temporarily until flood levels reseeded.	The direct dollar impact on Unitywater was not material in terms of labour, materials or damaged infrastructure. However the conditions did delay the return to normal operations and capital work programs by 6 to 8 weeks, as a conservative estimate. Work on some low lying projects was delayed for up to 12 to 16 weeks due to consistent rain throughout the summer. Unitywater submitted a $1.3M insurance claim in relation to the floods which is currently being assessed.

[47] Unitywater has progressed capitalisation of corporate costs but these have not yet been build into these forecasts.

[redacted]

13.7 KEY ASSUMPTIONS AND OTHER FACTORS

Unitywater has applied assumptions and principles to support its operating expenditure forecasts. Details regarding the assumptions and principles are provided in Section 2, while Table 36 (below) highlights some of the key assumptions applicable to operating expense forecasts.

Table 36 Key Assumptions applicable to operating forecasts

Assumption	Application
Forecast growth in customer numbers for additional system assets	Direct operating expenditure reflects increases in asset creation and changes in customer service standards. There are also impacts on directly related variable costs such as electricity for pumping and chemicals for waste water treatment.
Nominal expenditure escalation rates	Operating expenditures have been calibrated to reflect common expenditure escalation rates for labour, contractors, materials and other selected expenditure categories.
Forecast resource availability and capability	Unitywater is developing its resourcing strategy as part of the Netserv Plan. For 2011/12 $0.3M in non recurrent operating expenditure has been provided for a resourcing strategy.
Efficiency adjustments	Unitywater has already applied a top down efficiency factor that identified $10.0M in cost reductions in 2011/12. The final approved Board budget incorporates those expenditure reductions in addition to increasing capitalisation of corporate expenditures attributable to the capital works program. (The latter adjustment has not been reflected in forecasts in this submission due to timing issues. Revised forecasts will be available prior to the QCA's draft decision).

13.8 SERVICE STANDARDS AND REGULATORY OBLIGATIONS

Operating forecasts reflect the growth in assets resulting from current and planned capital investment. They also include expenditure necessary for ongoing operation and maintenance of water reticulation, sewage treatment plants and associated infrastructure to ensure compliance with regulatory obligations and service standards.

[redacted]

The more significant of these regulatory obligations are discussed in the service standards section of this submission. One area in particular is the requirement for Unitywater to develop a Netserv plan by 1 July 2013. The Netserv plan will play a central role in the management and operation of Unitywater and describes:

- The growth and investment strategy of the business;
- How the business will operate to:
    - optimise performance
    - reduce service costs
- How the business will remain environmentally compliant;
- How the business will charge for its services and infrastructure; and
- How the business will maintain and renew its assets.

The Netserv plan will be a marshalling document for developing capital and operating requirements and incorporates; demand side management, total water cycle management plan, condition and performance based asset assessment, planned maintenance schedules and design standards harmonisation.

13.9 BASE YEAR IS ASSUMED TO BE 2011/12

Unitywater has not used a historical base year due to the absence of trading history given that Unitywater commenced operations on 1 July 2010. Unitywater also does not consider the 2010/11 year as indicative of a normal operating year for the following reasons:

- First full year of operations;
- Emerging capabilities and consolidation of former council businesses into a single entity;
- Evolving and uncertain regulatory environment;
- Developing and implementing systems, processes and people;
- New entity that is not yet reflective of a mature infrastructure business;
- Impact of significant adverse weather conditions arising from the SEQ floods in early 2011;
- Impact on demand of ‘once in a generation’ levels of rainfall;
- Developing customer awareness of the importance and cost of water efficiency and sewage treatment expenditures; and
- Emerging environmental awareness partly associated with the carbon debate and global warming that should increase interest in and awareness of the natural environment and the importance of healthy waterways.

Unitywater has prepared estimates within this submission on the basis of 2011/12 dollars and has escalated expenditure by growth rates and prices in the forward estimates to 2013/14. Escalation rates are described in Section 13.14.

13.10 OPERATING PERFORMANCE

During the 2010/11 financial year, Unitywater concurrently developed corporate and retail capabilities as well as operating the network and maintaining service continuity. The progress in developing Unitywater’s systems, policies, procedures and business continuity planning (BCP) is placing Unitywater on a sound footing. In particular, the early planning for BCP was rewarded

and rigorously tested during the January 2011 flood event when Unitywater's systems, people and infrastructure performed exceptionally well for a fledging organisation.

13.11 OPERATING EXPENDITURE OVERVIEW

Unitywater's total operating expenditures for 2010/11 are based on a third quarter full year forecast of $209.5M. This compares favourably to the prior year submission estimate of $234.2M. The lower projected result for this period is primarily due to a lower spending pattern during the initial stages of operation as Unitywater's capability and capacity were being established. Additionally bulk-water costs are anticipated to be 8% lower due to lower projected volumetric demand which was impacted by above average rainfall and permanent conservation measures on the Sunshine Coast.

For the 2011/12 financial year, operating expenditures are projected to be $238.5M. This is based on the Board-approved budget and represents an increase of $15.1M and $13.9M in non-controlled costs (including bulk water costs; ombudsman and regulatory fees) and controlled expenditures respectively compared to the projected 2010/11 budget.

Non-controlled expenditures reflect increases in the published bulk water price path by region indexed by CPI and dwelling growth.

Controlled expenditures reflect an increase in one-off project expenditure of $3.3M, salary and wages (net of contractor expenditures) $7.1M and other expenditure increases of $3.6M. Details of expenditure increases are included in the following sections.

Other expenditure increases are consistent with expenditure and growth index assumptions at an aggregated level. Salary and wages expenditure increases reflect Unitywater's emerging capabilities and alignment of resources with business capabilities. Unitywater is in the process of negotiating its first EBA for a two year term and has had regard to the SEQ workforce framework that remains in place until 30 June 2013.

Unitywater has also updated historic data for the 2009/10 financial year to reflect actual operating expenditures as disclosed in councils' audited financial statements.

Table 37 (overleaf) summarises Unitywater's projected operating expenditures for the current regulatory reporting period by expenditure category.

[redacted]

Table 37 Forecast Operating Expenditure by category

Expenditure category $M	Previous year estimate FY2011	FY2011	FY2012	FY2013	FY2014	$ change FY2011 to FY2012	% change FY2011 to FY2012	Contribution proportion of total expenditure % FY2012
Bulk water costs	75.3	69.4	83.7	100.7	119.1	14.3	20.6	35.1
Chemicals expenditure	5.3	4.1	4.9	5.1	5.4	0.8	19.5	2.1
Contractor expenses	31.0	21.1	18.7	26.6	27.7	(2.4)	(11.4)	7.8
Corporate expenditure	35.9	30.3	31.3	31.2	30.5	1.0	3.3	13.1
QCA Regulatory Fees	0.6	0.6	0.7	0.7	0.7	0.1	16.6	0.3
Electricity charges	7.6	6.1	6.9	7.5	8.2	0.8	13.1	2.9
Employee expenses	51.0	49.4	58.9	60.2	60.8	9.5	19.2	24.7
Environmental licence or regulatory fees	0.5	0.5	0.4	0.4	0.4	(0.1)	(20.0)	0.2
Non recurrent expenditure	8.3	6.0	9.3	7.4	5.6	3.3	55.0	3.9
Other materials and services	14.3	18.3	19.4	19.8	19.2	1.1	6.0	8.1
Sludge handling costs	4.3	3.7	4.3	4.5	4.8	0.6	16.2	1.8
Total	234.2	209.5	238.5	264.1	282.4	29.0	13.8	100.0

The above table demonstrates that non CPI capped bulk water costs account for 33% and 35% of total Unitywater operating expenditures for 2010/11 and 2011/12 respectively. Bulk water costs contribute 49.3% of the total increase in operating expenditures over the same period.

The above table also shows that the 82% of the change in total operating expenditure when comparing 2010/11 to 2011/12 is due to uncontrollable cost increases being bulk water and labour costs.

Unitywater is also investigating innovative ways to reduce chemical expenditure such as alternative supplies of chemicals and possible local manufacturing.

Unitywater suggests that the reduction in contractor expenses reflects Unitywater's efforts through revised corporate governance and approval processes implemented by the Board; Capital Works Committee and the Asset Steering Committee to monitor and review projects, programs and expenditure. The reduced capital expenditure which is being identified through the governance processes has resulted in a reduction in actual and budgeted contractor expenses.

The employee expenditure reflects Unitywater becoming increasingly self-sustaining and less reliant on service level agreements with councils for some ICT systems. Some functions continue

[redacted]

to be identified where those types of skills and staff were not transferred from council to Unitywater, which gives rise to recruitment. Unitywater is experiencing a labour attrition rate well below the average rate experienced in the non-mining sector of the economy.

Operating expenditures for 2011/12 represent business as usual expenditures in addition to one-off expenses associated with Program Paramount. Program Paramount is focused on system and business integration activities.

Operating expenditures are also influenced by staff transition arrangements set under the SEQ Urban Water Arrangements Reform Workforce Framework 2009.

Additional recurrent and one-off expenditures will be incurred, in relation to ongoing development of corporate and retail capability. There are also expenditures associated with council based service level agreements. 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 20% by 2016)[48].

13.12 OPERATING EXPENDITURE SCOPE CHANGES

Unitywater's 2011/12 operational budget process is outlined in Section 2. In forecasting operating expenditures beyond 2011/12, generic cost indices and geographic specific growth factors were applied after providing for expenditure scope changes.

Table 38 Scope changes impacting expenditure estimates

Nominal ($M)	FY2012	FY2013	FY2014	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
Water Efficiency and Demand Side Management	scoping	2.6	2.7	Engineering, innovation, incentive and education solutions
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

[48] Reference to the OESR population estimates May 2011.

[redacted]

13.13 COST ALLOCATION METHOD

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

The allocation model details all drivers for expenditure which are not directly attributable to a specific service and shows how they are allocated to categories by individual account. The allocation model provides a transparent audit trail, demonstrates the link between budgeted revenues and expenditure at a natural account level; and attribution of revenues and expenditures to the QCA's required categories, services, activities and regions.

An account-based approach to disaggregating operating expenses was adopted. This means that the underlying principle for allocation of operating expenditures by Unitywater 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 39 (below) provides a high level summary of direct and indirect expenditures. An allocation driver was linked to each indirect expenditure category to apportion expenditure to a region and service.

Table 39 Direct and indirect operating expenditures 2011/12

Region ($M)	Direct Expenditures	Indirect Expenditures	Total Operating Expenditures
MBRC	87.0	46.6	133.6
SCRC	63.7	41.2	104.9
Total operating expenditures	**150.7**	**87.8**	**238.5**

Direct operating expenses are attributed to the service within a particular region and no allocation drivers are required. Indirect operating expenses, depending on whether they are regional or region-specific, are allocated by council region and service or by service only.

Table 40 (overleaf) outlines the basis of the cost allocation to council regions where expenditure is captured on a whole of Unitywater basis. This is opposed to Table 41 which outlines the basis of cost allocation at the service level (cost pools).

Table 40 Allocation basis for operating expenditures across geographic regions

Element	Cost Pool	Value to allocate 2011/12 ($M)	Allocation Method	Allocation %	
				MBRC	SCRC
Corporate support costs	Corporate costs	31.4	Equal allocation to regions	50.00	50.00
	QCA regulatory fees	0.6			
	Electricity charges	-			
	Employee expenses	0.1			
	Non recurrent costs	1.5			
	Other materials and services	0.7			
Laboratory services expenditure	Chemical costs, contractor expenses, employee expenses, licence or regulatory fees and other materials and services	0.5	2011/12 Regional RAB 2011/12 UW RAB	57.33	42.67
Network support costs	Chemical costs	-			
	Contractor expenses	1.6			
	Electricity charges	0.2			
	Employee expenses	26.7			
	Licence or regulatory fees	-			
	Non recurrent costs	7.2			
	Other materials and services	3.4			
Retail support costs	Contractor expenses	4.0			
	Employee expenses	7.4			
	Energy and Water Ombudsman Queensland fees	0.2			
	Other materials and services	2.2			
Grand total		87.7			

Operating expenses that cannot be directly allocated to a particular service form cost pools which are allocated to services on the basis of causal cost drivers.

Operating cost pools to be allocated to services include:

Corporate Expenditure	
Office of the Chief Executive	Internal Audit
Human Resources	Facilities Management
Information and Communication Technology	Legal and Secretariat
Corporate Finance and Regulatory Services	Business Support Services

Retail Services Expenditure	
Customer Services and Billing	Revenue Assurance
Communications and Marketing	

[redacted]

Network Expenditure	
Procurement	Fleet
Network Operating Executive	Asset Creation
Development Services	Environmental Services
Field Support	Mechanical Services
Stores Administration	Strategic Planning and Asset Management
Technical Support	Systems Control
Network Operations and Technologies	SCADA Systems

Table 41 (below) provides the basis of allocation to cost pools for the purpose of cost allocation to services by region.

Table 41 Allocation basis for indirect operating expenditures across services

Element	Cost Pool	Value to Allocate 11/12 ($M)	Allocation Method
Corporate support costs	Corporate costs	31.4	*Service Revenue* / *Total region Revenue*
	QCA regulatory Fees	0.6	
	Electricity charges	-	
	Employee expenses	0.1	
	Non-recurrent costs	1.5	
	Other materials and services	0.7	
Laboratory services expenditure	Chemical costs, contractor expenses, employee expenses, licence or regulatory fees and other materials and services	0.5	*No. of Avg. Weekly tests for each service* / *Total number of Avg. weekly tests*
Network support costs	Chemical costs	-	*Service RAB* / *Total region RAB*
	Contractor expenses	1.6	
	Electricity charges	0.2	
	Employee expenses	26.7	
	Licence or regulatory fees	-	
	Non-recurrent costs	7.2	
	Other materials and services	3.4	
Retail support costs	Contractor expenses	4.0	Number of connections for each service / Total number of connections
	Employee expenses	7.4	
	Energy and Water Ombudsman Queensland fees	0.2	
	Other materials and services	2.2	
Total		**87.7**	

[redacted]

Table 42 (below) outlines indirect cost pools to be allocated, the basis of allocation and the resulting percentage apportionment of expenditures to regulated and non-regulated services by region.

Table 42 Allocation percentages across services for the Moreton Bay region (%)

Element	Cost Pool	Drinking Water	Trade Waste	Wastewater Via Sewer	Other Core Water	Non-regulated
Corporate support costs	Corporate costs Electricity charges Employee expenses Licence or regulatory fees Non-recurrent costs Other materials and services	45.29	0.60	49.83	2.91	1.37
Laboratory services expenditure	Chemical costs Contractor expenses Employee expenses Licence or regulatory fees Other materials and services	58.84	0.53	24.39	4.50	11.75
Network support costs	Chemical costs Contractor expenses Electricity charges Employee expenses Licence or regulatory fees Non-recurrent costs Other materials and services	37.60	1.51	57.13	3.76	-
Retail support costs	Contractor expenses Employee expenses Licence or regulatory fees Other materials and services	49.56	-	50.44	-	-

Table 43 Allocation percentages across services for the Sunshine Coast region (%)

Element	Cost Pool	Drinking Water	Trade Waste	Wastewater Via Sewer	Other Core Water	Non-regulated
Corporate support costs	Corporate costs Electricity charges Employee expenses Licence or regulatory fees Non-recurrent costs Other materials and services	49.22	-	0.95	49.38	0.45
Laboratory services expenditure	Chemical costs Contractor expenses Employee expenses Licence or regulatory fees Other materials and services	58.84	4.50	0.53	24.39	11.75
Network support costs	Chemical costs Contractor expenses Electricity charges Employee expenses Licence or regulatory fees Non-recurrent costs Other materials and services	40.51	0.88	1.69	56.91	0.01
Retail support costs	Contractor expenses Employee expenses Licence or regulatory fees Other materials and services	51.28	-	-	48.72	-

13.14 OPERATING EXPENDITURE ESCALATION AND GROWTH RATES

The expenditures associated with the provision of water reticulation and sewage treatment are not homogenous in nature. Differences within the SEQ region may be attributable to transport, logistics, storage, volume, technology, customer density and contracting strategy, to name a few. Expenditure escalations can be expected to differ between the distributor retailer entities in SEQ but remain within a reasonable range.

Table 44 (below) and 45 (overleaf) provide the growth and cost escalation parameters applied by Unitywater in forecasting operating expenditures up to 2013/14.

Table 44 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, 2013/14 - CPI consistent with asset indexation.	No growth assumed
Electricity charges	All	Cost index: BRCI for 2011/12 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, 2013/14 - 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

[redacted]

Table 45 Growth and cost indices percentages applied in 2012/13 and 2013/14 (%)

Expense	Region	FY2012/13 Growth Index	FY2012/13 Cost Index	FY2012/13 Total	FY2013/14 Growth Index	FY2013/14 Cost Index	FY2013/14 Total
Bulk water costs	MBRC	2.82	14.03	16.85	2.83	12.33	15.15
	SCRC	2.50	20.15	22.64	2.50	16.82	19.32
Chemical costs	All	2.65	3.00	5.65	2.66	3.07	5.73
Contractor expenses	All	-	4.00	4.00	-	4.00	4.00
Corporate support costs	All	-	3.00	3.00	-	3.07	3.07
Electricity charges	All	2.65	6.54	9.19	2.66	6.54	9.20
Employee expenses	All	-	4.00	4.00	-	4.00	4.00
Indirect taxes	All	-	3.00	3.00	-	3.07	3.07
Licence or regulatory fees	All	-	3.00	3.00	-	3.07	3.07
Non recurrent costs	All	-	3.00	3.00	-	3.07	3.07
Other materials and services - Direct costs	All	2.65	3.00	5.65	2.66	3.07	5.73
Other materials and services - network and retail support costs	All	-	3.00	3.00	-	3.07	3.07
Sludge handling costs	All	2.65	3.00	5.65	2.66	3.07	5.73
General	All	-	3.00	3.00	-	3.07	3.07

13.15 EXPENDITURE COLLECTION AND FORECASTING

Unitywater has provided detailed information regarding operating expenditure relating to services and activities. Operating expenditures have been captured by region and attributed to activities, services and expenditure categories as explained above. Information has been sourced as follows:

- 2008/09 – Due to the disparate information available directly from councils, alternative information was sourced from the Enterprise Financial Model (EFM). The EFM was an externally audited document utilised by the SEQ Council of Mayors Water Reform project;
- 2009/10 – Audited Financial Statements supplied by respective councils; and
- 2010/11 to 2013/14 – Detailed budget information by expenditure code and natural account was used to populate information for the forecast years. The disaggregated data used has been reconciled to Unitywater's budget.

[redacted]

13.16 PLAN TO BUILD FORECASTING METHODOLOGY

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

During 2010/11 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 will be an integral tool to aid Unitywater in the planning of maintenance and renewal expenditure and provide information regarding operating commitments on a condition and performance based assessment of our assets.

The SCADA project will bring together information into a single reliable database to facilitate forward planning on the basis of common performance criteria and provide the necessary information for Unitywater to leverage efficiencies through load optimisation.

Both projects are in early stages of development and it will take time to realise the benefits as data trends of reliable information are collated. It is Unitywater's expectation that this process will take approximately three years to fully realise benefits.

13.17 DEVELOPMENT OF A DEMAND MANAGEMENT PLAN

Unitywater recognises that demand side management is a viable alternative to capital augmentation in certain circumstances. Unitywater is conscious of demand side management opportunities in planning its network and where business case analysis supports this approach, Unitywater will act to reduce demand through alternative water sources or sewage or trade waste treatment practices.

In most instances with trade waste it may be more practical to accumulate, locally pre-treat, store and transfer by truck (pipe on wheels) to STPs with latent capacity than it is to apply demand side management to residential load.

Unitywater in its first full year of operations has not identified an opportunity for demand side management, although this alternative is considered where practical during option assessment when addressing network constraints.

13.18 PLANNED MAINTENANCE

Unitywater is developing a proactive approach to maintenance and is in the process of progressing to 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 an unplanned network incident.

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

[redacted]

13.19 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.

13.20 VEGETATION MANAGEMENT – CCTV PIPE CAMERA

Unitywater conducts an inspection program to detect potential defects requiring remedial, programmed or priority response as part of the planned maintenance program.

Typically the most difficult parts of the network to inspect are the pipe networks for both water reticulation, but more importantly the 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 or illegal connections.

Unitywater is continually learning about the condition of its pipes as it conducts many kilometres of optic fibre camera reconnaissance throughout the network. Observations assist with understanding the condition and performance for the age of particular assets. This can be used to better inform and schedule planned maintenance activity. Inspection expenditures are developed using forecast quantities based on unit costs and inspection cycles.

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

13.21 EMERGENCY RESPONSE – FLOODS IN SEQ

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 an asset failure requiring repair.

The floods in SEQ demonstrated that Unitywater is well prepared to continue to operate its network during a major incident (in this case, inclement conditions and power outages). Most of Unitywater's critical infrastructure has alternative stand-by generation capacity in order to maintain operations.

During the January 2011 floods, Unitywater activated Incident Management Teams to minimise impacts on our customers, the environment and network infrastructure. Additionally, Unitywater

[redacted]

nominated representatives to participate in and inform Sunshine Coast and Moreton Bay Regional Council Disaster Management Teams of issues related to Unitywater that may impact on local regional councils.

Unitywater's experience with the SEQ floods suggested 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 Unitywater STPs were operating normally.

Unitywater's network proved so resilient that several pumper trucks and other crews were made available to assist QUU in their recovery.

13.22 RETAIL AND NETWORK CONTACT CENTRE

Retail expenditure reflects Unitywater's 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 implementation of a consolidated billing 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 is planned to be commissioned in December 2011 and will replace the two existing council systems. Planned capital expenditure for this project is $9 million and will deliver the following benefits;

- Improved customer service standards;
- Replace two property-based legacy systems to facilitate efficiency gains and realisation of benefits;
- Correct misalignment with Unitywater's strategic Business and Enterprise Architectures;
- Meet legislative requirements for quarterly billing (July 2011) and tenant billing (July 2013); and
- Remove reliance on regional councils' ICT infrastructure and support. The previous year's forecast included $2.4M for service level agreements with council's. For 2011/12 $0.4M is planned to be incurred for use of council ICT systems. This represents a significant shift towards full standalone capability for Unitywater's retail services.

13.23 RETAIL METERING SERVICES

Unitywater has a variety of meters in service across its area of operations. The meter reading is currently 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 any issues with particular meters as they age.

[redacted]

After the new billing system is operational, Unitywater plans to make two important changes to the scheduling of meter reading that will impact on customers. The first is a move from six monthly to quarterly billing on the Sunshine Coast. The second is to move from fixed reading and bill issuing dates to a rolling schedule of meter reading and billing across the whole of Unitywater's customer base. 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 billing.

13.24 ICT EXPENDITURE

Unitywater has identified within its business plans a number of challenges, programs and key initiatives relating to information communication and technology services. Table 46 (below) summarises these challenges together with Unitywater's key proposed initiatives for 2011/12.

Table 46 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 our core cost & 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. This is currently under development and project costs are yet to be reflected in 2011/12 forecasts.

The focus of the GIS project will be to improve business operations in areas such as business processes 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 planned for 2011/12 include planned capital expenditure of $12.8M for projects to establish the Electronic Data Records Management System, Enterprise Data Warehouse / Services (integration) bus, Consolidated Asset Management System, Unity network single domain project and SCADA program (refer to Section 8). Projects initiated in conjunction with retail include the call centre transition and the customer services and billing project. The

[redacted]

former was implemented in the 2010/11 financial year and the later is due for delivery in December 2011 at a capital cost of $9.0M (please refer to Customer Service narrative).

13.25 LEVIES, LICENCES FEES AND PERMITS

Unitywater incurs a number of levies and fees, including licence and permit fees, in the operation of its business.

These levies and fees, predominantly charged by State Government instrumentalities, increased by or are expected to increase by more than the CPI cap applicable to Unitywater's charges.

Unitywater notes that in its 2010/11 final decision the QCA excluded levies, fees, licences and permits from its deemed efficiency adjustment on the basis that Unitywater did not control these expenditures. Unitywater submits that the QCA should continue to adopt that practice as these expenditures are continuing to escalate at rates above CPI.

13.26 EMPLOYEE EXPENDITURES

Unitywater's employees are covered by the *SEQ Distribution and Retail Water Reform: Workforce Framework 2009* (the Workforce Framework) which protects 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 expires 30 June 2013.

The Workforce Framework ensures 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, and that workers' entitlements and terms and conditions of employment will be protected.

Unitywater is adhering to these objectives and therefore considers that the Workforce Framework does not support natural attrition as a source of efficiency. Moreover, 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 self-sustaining and less reliant on service level agreements with councils for some ICT systems.

That said, even within the constraints of the Workforce Framework, Unitywater has made significant progress toward identifying efficiencies. For example, the next Enterprise Bargaining Agreement (EBA) proposes 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;
- 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 (ie same work/same pay).

[redacted]

In addition to the constraints of the Framework, the impact of the two speed economy on the national water industry means that Unitywater is not currently experiencing staff turnover in the areas where work can be reallocated. However, as a matter of normal business practice, Unitywater is undertaking an audit of its workforce that includes consideration of current roles, future role needs, and the training and development needs of its workforce. Over time, this will inform workforce planning and management to realise Unitywater's strategic goals of proud, productive people and sustainable value and growth.

13.27 PREVIOUS ISSUES RAISED BY THE QCA

The Authorities final report for 2010/11 included proposed efficiency reductions for the following expenses. The steps taken by Unitywater in 2011/12 to achieve these efficiencies are discussed below.

13.27.1 ELECTRICITY EXPENDITURES

Unitywater is taking steps towards a reduction of 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 that when mature, these and other strategies will result in downward pressure on the rate of increase in electricity price per kwh, and may reduce the number of kwh required to maintain the desired level of service for reticulated water and sewerage treatment.

13.27.2 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 is examining commercial arrangements to procure chemicals more efficiently.

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

13.27.3 CORPORATE EXPENDITURES

New corporate functionality was required from 1 July 2010. Corporate expenditures for 2011/12 represent 13.4% of total operating expenditures. The largest contribution to corporate expenditure is salary and wages (50%).

The QCA has changed reporting categories for the 2012 reporting period. For comparison purposes, the prior year submission has been aligned to these revised reporting categories.

[redacted]

Table 47 Forecast Corporate Expenditure ($M)

Expenditure category $M	FY2011	FY2012	FY2013	FY2014	$ change FY2011 to FY2012	% change FY2011 to FY2012	Contribution proportion of total expenditure % FY2012
Salaries and wages	15.2	16.0	16.1	16.2	0.8	5.3	50.0
Consultants and Contractors	4.1	5.3	5.1	4.8	1.2	29.3	16.6
Insurance	2.0	2.0	2.1	2.1	-	-	6.3
Fleet	-	1.8	1.9	1.9	1.8	-	5.6
QCA Regulatory Fees	0.6	0.7	0.7	0.7	0.1	16.6	2.2
Taxes and Fees	0.2	1.0	1.0	1.0	0.8	400.0	3.1
Telco costs	1.0	1.5	1.5	1.6	0.5	50.0	4.7
Materials and Services	3.8	1.3	1.0	0.6	(2.5)	(65.8)	4.1
SLA Costs	3.3	1.0	1.0	0.8	(2.3)	(69.7)	3.1
Legal Expenses	0.5	0.7	0.7	0.7	0.2	40.0	2.2
Audit fees	0.2	0.6	0.7	0.7	0.4	200.0	1.9
Property Expenses	0.0	0.1	0.1	0.1	0.1	-	0.3
Total corporate expenditure	30.9	32.0	31.9	31.2	1.1	3.6	100.0

The reduction in SLA costs reflects Unitywater becoming increasingly self sustaining and less reliant on some council ICT systems. This is also represented in the budgeted increase in consultant and contractor category where additional expenses are forecast to meet required obligations. Audit fees reflect new requirements of the business including internal and external audit functions. Reductions in materials and services reflect the Board determined efficiency scope reductions and the removal of deterministic regulation from 2013.

13.29 INSURANCE EXPENDITURES

Unitywater has insurance policies with external providers for specified risks. Unitywater's current insurance program includes a general insurance policy for items including public liability, motor vehicle, personal accident, directors and officers cover, and corporate travel.

13.30 SUBSTITUTION BETWEEN CAPEX AND OPEX

Unitywater supports the deferral of capital expenditure through the use of alternative solutions to address the load driver (growth; renewal; improvement; or compliance). Unitywater, when considering options and alternatives to address a network constraint, includes consideration of demand side management; operating expenditure solutions; local supply/treatment; 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.

[redacted]

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.

13.31 BRENDALE – OPERATING EXPENSE SOLUTION

Operating expenditure associated with the Brendale STP is one example where Unitywater is applying new thinking and new approaches to meet growing 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 and in NPV terms, is the least cost option. This option has 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.

13.32 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 operational circumstances and geographical location, with parts of the adjacent coastline protected in a highly sensitive marine park, presents Unitywater with unique challenges that

[redacted]

require its STPs to be operated on a more stringent set of licence conditions than would otherwise be the case. In addition, the nature of the network implies it has to support disparate developments and a widely spaced service area.

13.33 VARIATION IN EXPENDITURE FORECASTS

Table 48 (below) highlights summarised changes in operating expenditures between years.

Table 48 Variances in forecasted operating expenditures

Explanation Of Variances	FY2012	FY2013	FY2014
Operating expenditure ($M)	238.5	264.1	282.4
Increase from prior year %	13.8	10.7	6.9
Increase from prior year ($M)	29.0	25.6	18.3
Variance represented by:	**$M**	**$M**	**$M**
• Increase in bulk-water charge	14.3	17.0	18.4
• Price mitigation plan	0.7	(0.4)	(0.4)
• Non recurrent project expenditures	3.3	(1.9)	(1.9)
• Regulatory services	3.0	-	-
• Salaries and wages	8.2	2.5	4.0
• Other expenditure	9.5	3.4	5.1
• Kedron Brooke scheme	-	4.8	(0.3)
• Demand management costs	-	2.6	0.1
• Anticipated expenditure savings	(10.0)	(2.4)	(6.7)

Details of projected expenditure reductions for 2011/12 are;

- Labour - $1.2M reduction in salaries and wages.
- Field services - $2.0M reduction in materials and services expenditures;
- Treatment services - $0.8M reduction in treatment expenditures including chemicals and energy;
- Kedron Brooke scheme $2.0M – contract does not commence until July 2012;
- Customer engagement program - $0.2M;
- ICT – $0.8M for telephony expenditures, service provider contract and licence fees; and
- Regulatory proposal and other expenditures - $3.0M.

Operating expenditures are projected to increase by 13.8% in 2011/12.This represents an increase in water operating expenditures of 16.4% and sewerage operating expenditures of 8.5%. The projected increase in expenditure for 2011/12 is primarily due to a lower spending

[redacted]

pattern during the initial stages of operation in 2010/11 as Unitywater's capability and capacity were being established.

Expenditure saving strategies in 2011/12 have reduced operating expenses by 7% (excluding bulk water) and exceeds the QCA's recommended efficiency target of 2% for non-bulk water expenditure. Table 49 (below) summarises projected operating expenditure trends for water and sewerage services.

Table 49 Water Services Forecast Operating Expenditures 2011-2014 ($M)

Expenditure Category	FY2011	FY2012	FY2013	FY2014	$ change FY2011 to FY2012	% change FY2011 to FY2012	Contribution proportion of total expenditure % FY2012
Bulk water costs	69.4	83.7	100.7	119.1	14.3	20.6	58.7
Corporate expenditure	15.0	15.6	15.6	15.2	0.6	4.0	10.9
Non recurrent expenditure	2.7	4.1	3.4	2.4	1.4	51.9	2.9
Chemical expenditures	1.1	0.8	0.8	0.9	-0.3	-27.3	0.6
Contractor expenses	5.9	7.0	8.4	8.7	1.1	18.6	4.9
Electricity charges	1.1	1.2	1.3	1.4	0.1	9.1	0.8
Employee expenses	19.6	23.2	23.7	23.8	3.6	18.4	16.3
Licence or regulatory fees	0.0	0.1	0.1	0.1	0.1	-	0.1
Other materials and services	7.8	7.0	6.9	6.8	-0.8	-10.3	4.9
Total Water Operating Expenditures	122.6	142.7	160.9	178.4	20.1	16.4	100.0

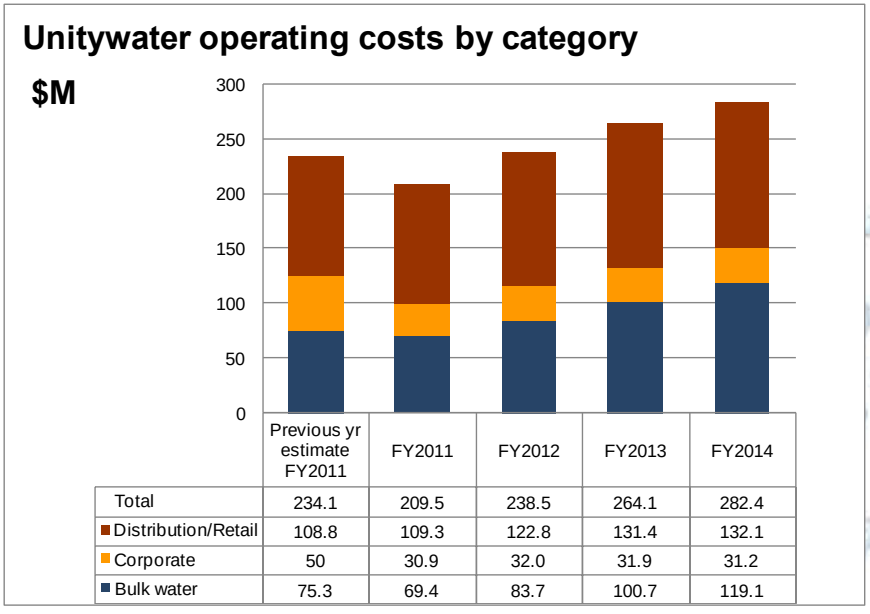
Table 50 Sewerage Services Forecast Operating Expenditures 2011-2014 ($M)

Expenditure Category	FY2011	FY2012	FY2013	FY2014	$ change FY2011 to FY2012	% change FY2011 to FY2012	Contribution proportion of total expenditure % FY2012
Corporate expenditure	15.6	16.1	16.1	15.7	0.5	3.2	17.3
Non-recurrent expenditure	3.3	5.1	4.1	3.1	1.8	54.5	5.5
Chemical expenditures	3.1	4.1	4.3	4.5	1.0	32.3	4.4
Contractor expenses	15.1	11.6	18.1	18.9	-3.5	-23.2	12.4
Electricity charges	5.0	5.7	6.2	6.8	0.7	14.0	6.1
Employee expenses	29.6	34.6	35.4	35.8	5.0	16.9	37.1
Licence or regulatory fees	0.5	0.3	0.3	0.3	-0.2	-40.0	0.3
Other materials and services	10.0	11.4	11.5	11.4	1.4	14.0	12.2
Sludge handling costs	3.7	4.3	4.5	4.8	0.6	16.2	4.6
Total Sewerage Operating Expenditures	85.9	93.2	100.5	101.3	7.3	8.5	100.0

13.35 CHANGES IN OPERATING EXPENDITURES

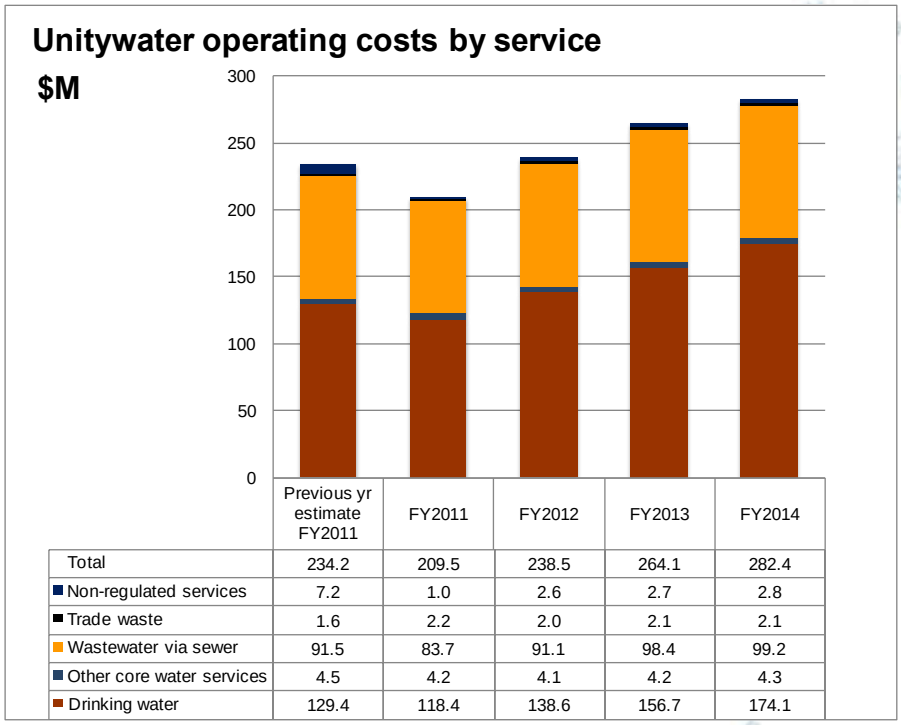
The graphs below and overleaf summarise the change in operating expenditures by category, service and expenditure classification over the period 1 July 2011 to 30 June 2014.

Graph 1 Operating expenditures by category 2010/11 to 2013/14



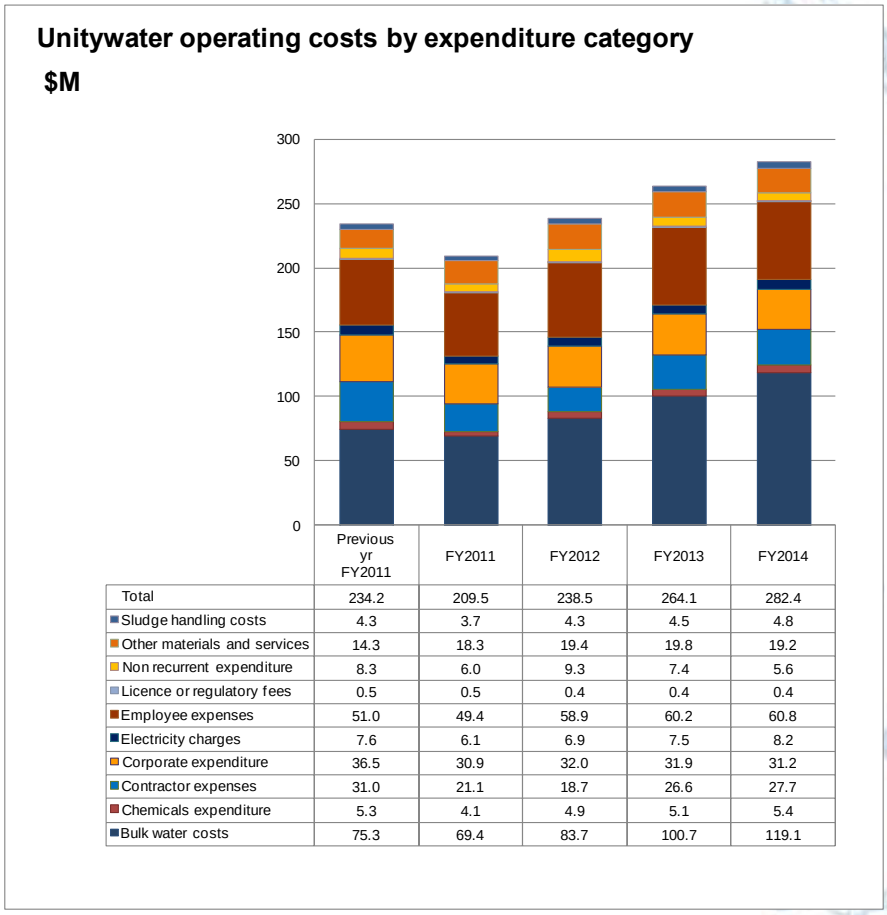
	Previous yr estimate FY2011	FY2011	FY2012	FY2013	FY2014
Total	234.1	209.5	238.5	264.1	282.4
Distribution/Retail	108.8	109.3	122.8	131.4	132.1
Corporate	50	30.9	32.0	31.9	31.2
Bulk water	75.3	69.4	83.7	100.7	119.1

Graph 2 Operating expenditures by service 2010/11 to 2013/14



	Previous yr estimate FY2011	FY2011	FY2012	FY2013	FY2014
Total	234.2	209.5	238.5	264.1	282.4
Non-regulated services	7.2	1.0	2.6	2.7	2.8
Trade waste	1.6	2.2	2.0	2.1	2.1
Wastewater via sewer	91.5	83.7	91.1	98.4	99.2
Other core water services	4.5	4.2	4.1	4.2	4.3
Drinking water	129.4	118.4	138.6	156.7	174.1

Graph 3 Operating expenditures by expenditure category 2010/11 to 2013/14



	Previous yr FY2011	FY2011	FY2012	FY2013	FY2014
Total	234.2	209.5	238.5	264.1	282.4
Sludge handling costs	4.3	3.7	4.3	4.5	4.8
Other materials and services	14.3	18.3	19.4	19.8	19.2
Non recurrent expenditure	8.3	6.0	9.3	7.4	5.6
Licence or regulatory fees	0.5	0.5	0.4	0.4	0.4
Employee expenses	51.0	49.4	58.9	60.2	60.8
Electricity charges	7.6	6.1	6.9	7.5	8.2
Corporate expenditure	36.5	30.9	32.0	31.9	31.2
Contractor expenses	31.0	21.1	18.7	26.6	27.7
Chemicals expenditure	5.3	4.1	4.9	5.1	5.4
Bulk water costs	75.3	69.4	83.7	100.7	119.1

13.36 RELATED PARTIES

Unitywater relied on the participating councils for at least part provision of the following services in 2010/11 at a cost of $8.75M:

- Finance and Accounts;
- IT & Communications;
- Payroll;
- Properties & Facilities Management;
- Development Management and Charges;
- Customer Service;
- Stores Management; and
- Accommodation.

The number of services has been significantly reduced in 2011/12 to the following at a cost of $0.96M:

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

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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 has recently established a unit to develop non-regulated business opportunities that represent 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.

[redacted]

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 summarises 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 51 Non-regulated services – aggregate financial details ($M)

Non Regulated Services	FY2011	FY2012	FY2013	FY2014
Revenue	3.0	4.6	4.8	5.1
Operating expenses	1.0	2.6	2.7	2.8
Net operating result	2.0	2.0	2.1	2.3

Table 52 Details of non-regulated services projected operating results for 2011/12 ($M)

Non Regulated Services	Revenue	Operating Costs	Profit (Loss) From Activity
Laboratory Services	0.4	0.1	0.3
Private Works	2.8	2.2	0.6
Title Transfer Searches	1.4	0.3	1.1
Total non-regulated services income	4.6	2.6	2.0

15. CONCLUSION

Key points:

1. Unitywater is under-recovering MAR in 2011/12;
2. Operating and capital expenditure are a function of Unitywater's regional base and are not comparable with Brisbane or the Gold Coast; and
3. Continued focus on delivering high quality, cost-effective services.

Unitywater was established to provide water supply and sewerage services to the Moreton Bay and Sunshine Coast regions and assumed ownership of its assets on 1 July 2010.

As a new organisation created from six former water and sewerage businesses, there are opportunities to adopt new management practices, harmonise design standards, consolidate maintenance practices, explore innovation and customise business processes and systems to improve operational performance.

Some of these are longer-term aspirations that will take time to implement and realise the benefits of reform. The immediate focus has been on establishing Unitywater's core capabilities, maintaining continuity and reliability of service, improving customer service, achieving positive environmental outcomes and increasing our understanding of the performance and condition of the assets transferred to Unitywater.

Unitywater must address legacy issues such as asset condition, tariff structures and prices, resources, differing employment arrangements, systems and processes, and supplier contracts from the previous council-run businesses.

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

Unitywater will need to invest heavily in capital works on the Sunshine Coast over the next three years, including infrastructure upgrades to address major deficiencies in the transport and treatment of sewage.

Unfortunately, the need for this catch-up capital expenditure appears to have been overlooked by the State Government in its decision to impose a CPI price cap on distributor-retailers for 2011/12 and 2012/13.

This is Unitywater's second information return to the QCA under the interim price monitoring regime, and has been made while operating within an emerging regulatory framework and responding to ongoing water reform.

There remain a number of information constraints for this return, particularly in relation to prior years. This was not unexpected by the QCA and was included in the amended Ministerial Direction to the QCA. Indeed, the referral notice requires the QCA to; consider the availability of information from the entity, their emerging capability to provide information, the transitional work

[redacted]

required to integrate the entities and accept the operational constraints imposed by the *SEQ Urban Water Arrangements Reform Workforce Framework 2009*.

Unitywater intends to smooth price increases on an NPV neutral basis. This will be revised and confirmed in subsequent information returns. For the current return and for the under-recovery from 2010/11, Unitywater proposes to carry forward those amounts and index them going forward for possible recovery over a time frame yet to be determined. This will of course be decided in consultation with the participating councils who are required to publish a price mitigation plan by 1 March 2013 that covers the period to 30 June 2019.

Unitywater has strived during its first year of operations to implement governance frameworks, approval processes and budget processes that test and retest assumptions, requirements and business cases. Our aim is to minimise the cost to serve and challenge the necessity, scale, timing and resourcing of capital expenditure to meet growth, service and environmental requirements.

Many systems and processes typical of a well established business are still being developed by Unitywater. This early stage of business maturity has implications for pricing and this information return. For example, it is difficult to fully understand the cost behaviour impacts of new technology and its associated impact on MAR with the precision one would expect from a mature regulated business.

Unitywater is still finalising its systems and the resources required to operate the business, including embedding retail and corporate capabilities. However, Unitywater has made significant progress towards becoming a standalone business, particularly in regard to its financial systems, governance for capital expenditure, payroll, call centre and core ICT systems. Unitywater is progressing with necessary ICT initiatives including a single Asset Management System, single domain, GIS and EDRMS projects which are core ICT capabilities for an infrastructure business. Unitywater is also continuing its restructuring and consolidation of its Infrastructure Services Division and negotiating its next EBA.

The strategy-setting activities of the Board will continue to influence the future direction of Unitywater, including the resourcing arrangements for the business, prioritisation of activities, asset management and development, and delivery of its capital expenditure program. The Board recognises that the business strategy must complement its regulatory regime. Future revenues are dependent on the effectiveness of its regulatory strategy and ability to respond to the current and future regulatory regime.

Unitywater looks forward to working with the QCA, the Energy and Water Ombudsman, the QWC, the Department of Environment and Resource Management and Queensland Treasury Corporation as water reform in SEQ continues to evolve.

[redacted]

16. APPENDIX

[redacted]

Proposed Maximum Allowable Revenue Adjustment Transition Scheme (MAT Scheme)

Short report prepared for Unitywater in support of its 2011-12 price monitoring submission to the QCA

August 2011
Synergies Economic Consulting Pty Ltd
www.synergies.com.au

Disclaimer

Synergies Economic Consulting (Synergies) has prepared this advice exclusively for the use of the party or parties specified in the report (the client) and for the purposes specified in the report. The report is supplied in good faith and reflects the knowledge, expertise and experience of the consultants involved. Synergies accepts no responsibility whatsoever for any loss suffered by any person taking action or refraining from taking action as a result of reliance on the report, other than the client.

In conducting the analysis in the report Synergies has used information available at the date of publication, noting that the intention of this work is to provide material relevant to the development of policy rather than definitive guidance as to the appropriate level of pricing to be specified for particular circumstance.

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Figures and Tables

1 Introduction

Unitywater's annual revenues earned from the supply of both its water and wastewater services have so far been below its Maximum Allowable Revenues (MAR) approved by the Queensland Competition Authority (QCA) under its price monitoring arrangements. However, there is the potential for this situation to be reversed in any particular year, mainly due to larger than expected capital contributions received by Unitywater.

These actual revenue variations in relation to the approved MAR are to be expected given the present post-drought difficulties forecasting demand for water services and capital contributions associated with the provision of water and wastewater services in South-East Queensland. In addition, the rapidly evolving water policy and water regulatory frameworks in the State will also potentially constrain the growth in Unitywater's water and wastewater revenues through limits on price increases into the future.

Given this background, Synergies Economic Consulting (Synergies) has been engaged by Unitywater to prepare a short report on the potential for any annual revenue variations to form part of an adjustment mechanism whereby any under-recovery is recovered from, or over-recovery returned to, its customers in a subsequent year or years. It is proposed that this revenue 'under and overs' mechanism be called a MAR Adjustment Transition Scheme (MAT Scheme).

The intent of the MAT Scheme would be to balance the interests of Unitywater and its customers through ensuring Unitywater earns its MAR, but no more than this, over time. The purpose of this report is to provide the relevant background to the proposed mechanism, highlight the regulatory precedent supporting such mechanisms, and to provide an illustration of how the mechanism could operate.

This report is structured as follows:

- section 2 provides the background relevant to the proposed MAT Scheme;
- section 3 provides the policy and regulatory context, including summarising the relevant regulatory precedent;
- section 4 summarises the results of indicative modelling that has been performed to indicate how the MAT Scheme would operate; and
- section 5 concludes the report.

2 Background

The Queensland Government referred the South East Queensland (SEQ) monopoly distribution and retail water and wastewater service providers to the Queensland Competition Authority (QCA) for a price monitoring investigation covering the period from 1 July 2011 to 30 June 2013. Under this referral, the QCA is required to monitor the MAR of the distributor-retailers, based on the value of their Regulatory Asset Bases (RAB) and the total prudent and efficient costs of supplying water and wastewater services.

The MAR establishes separate revenue ceilings for Unitywater's water and wastewater services. The QCA's role is to monitor the change in the prices of Unitywater's services in relation to the approved MARs. Provided Unitywater's actual revenues are maintained at a level that is at or below the MAR, it cannot be considered that it is exploiting any market power it may hold in the delivery of its services.

In its final report on the interim price monitoring for 2010-11, the QCA stated that Unitywater's forecast revenues of $372.3 million fell below the MAR of $392.9 million.[1]

2.1 Impact of recent changes to water policy and regulatory framework

This section briefly summarises a number of key changes to the water policy and regulatory framework, which will have implications for Unitywater's revenue and prices in coming years.

These policy and regulatory changes are discussed in more detail in Unitywater's 2011-12 price monitoring submission.

2.1.1 Two year CPI capped price increases

In June 2011, the State Government made changes to the *South East Queensland Water Act 2009* to apply a CPI price cap to the distributor-retailer component of water and sewerage prices for certain customer groups in 2011-12 and 2012-13. However, this CPI price cap does not apply to bulk water and Unitywater is required by legislation to pass on bulk water price increases to customers in full.

We understand that Unitywater has applied the CPI-linked price cap to all of its water and sewage services (for residential and business customers irrespective of annual

[1] Queensland Competition Authority (2011). SEQ Interim Price Monitoring: Part A – Overview. Final Report.

usage) for 2011-12 (with the exception of of trade waste, recycled water, and miscellaneous fees and charges).

These CPI-linked price caps will serve to dampen Unitywater's revenues for the two years it is applied making it harder for Unitywater to achieve its approved MAR.

2.1.2 Development of price mitigation plans

As part of June 2011 legislative changes, the Queensland Government also required Local Government Councils to publish Price Mitigation Plans (PMPs) that are to explain how each Council intends to mitigate the impact of relevant water and wastewater charges on customers 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 and sewerage services provided by the distributor-retailer for the period from 1 July 2013 to 30 June 2019. This final price path must state graduated price increases for the 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 path.

2.1.3 Post June 2019 water and wastewater prices

It is very difficult to anticipate revenue and price trends beyond June 2019 given the evolving water policy and regulatory framework, as well as the unknown nature of PMP outcomes at this point in time.

In general terms, Unitywater considers that some form of medium term price path is likely to be in place over this period. We consider that the MAT Scheme mechanism proposed in this paper (see section 4) could operate over this period.

2.2 Demand and capital contribution forecasts

Unitywater is a young entity still developing its forecasting capabilities inherited from its former Council businesses. This means that there is likely to be a higher degree of uncertainty about its forecasts of expenditure, demand and capital contributions. These areas are of particular relevance in the context of Unitywater's expected MAR and actual revenues.

As indicated by Unitywater in its 2011-12 price monitoring submission, there is a high degree of uncertainty about demand for water services in the post-drought environment in South-East Queensland:[2]

> Forecasting over the next 1-3 years will be difficult as the impact of significant bulk water price rises interacts with a Moreton Bay region now in post drought conditions and a Sunshine Coast region now applying permanent conservation measures. How these communities respond to the changing circumstances is difficult to estimate.

The potential for structural changes to have occurred in household consumption levels may serve to dampen growth in Unitywater's demand in the medium to long term in the absence of changes to the water price structure. This could contribute to revenue shortfalls relative to MAR.

Notwithstanding the State Government's decision to cap Unitywater's price rises for the next two years, we understand that there remains a need for Unitywater to undertake an immediate and significant investment in critical capital works in both Moreton Bay and the Sunshine Coast. The impact of this capital expenditure will be to increase Unitywater's MAR in the next few years even though price increases will be constrained. This is highly likely to create revenue under-recoveries relative to MAR unless Unitywater receives significant capital contributions, both cash and in-kind, in relation to that capital works program from Councils and developers.

These capital contributions have historically been Queensland Government grants and subsidies, developer cash contributions, trunk assets donated in lieu of cash and non-trunk assets built by developers when the development proceeds. However, recent Queensland Government decisions, including capping developer contributions, will reduce the levels of both cash and donated trunk assets. As the cost of the infrastructure has not fallen, this will increase internally funded capital expenditure, which will increase the MAR.

Currently, Unitywater records capital contributions under what is known as the revenue offset approach. Under this approach, the QCA deducts from the MAR amounts reflecting forecast capital contributions over the relevant year. Rather than separating contributed assets from the RAB, all contributed assets are included in the RAB (and earns a return on and of capital), while an equal and offsetting reduction to Unitywater's revenue is made in the year of acquisition.

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[2] Unitywater (2011), Response to Interim Price Monitoring Information Requirement

In the short term, a larger than expected capital contributions in a particular year could result in Unitywater over-recovering its MAR. However, over time, given the capping of developer charges, the size of capital contributions is likely to diminish relative to historical levels.

2.3 Nature of Unitywater's revenue variations

Tables 1 and 2 below indicate the size of the expected revenue under-recoveries for Unitywater's water and wastewater services over the period from 2011-12 to 2013-14.

However, for the reasons identified above, it is a difficult forecasting environment for Unitywater so there is a relatively high degree of uncertainty about the MAR and revenue forecasts.

Table 1 Forecast under-recovery of water revenues

	2011/12 $m	2012/13 $m	2013/14 $m
Maximum allowable revenue	224.3	240.7	254.6
Forecast revenue	196.4	218.9	243.4
Revenue under-recovery	**27.9**	**21.8**	**11.3**

Source: Unitywater.

Table 2 Forecast under-recovery of wastewater revenues

	2011/12 $m	2012/13 $m	2013/14 $m
Maximum allowable revenue	218.5	232.8	242.7
Forecast revenue	203.4	216.4	230.2
Revenue under-recovery	**15.1**	**16.4**	**12.4**

Source: Unitywater.

3 Regulatory context

Achieving cost reflective prices is widely recognised as being fundamental to the promotion of efficient investment in and the efficient use of water, energy and transport infrastructure into the future. This is noted in the QCA's Statement of Regulatory Pricing Principles for the Water Sector:[3]

> To achieve the objectives of monopoly price regulation, including promoting economic efficiency, the Authority considers that prices of water delivered to an end user should:
>
> - be *cost reflective* – that is, reflect the costs of providing the service and, where the demand for water exceeds its supply, potentially incorporate a resource value;
>
> …
>
> - ensure *revenue adequacy* – the revenue needs of the business must be addressed where possible;
> - promote *sustainable investment* – where the services are to be maintained into the future, the investor must be given the opportunity to enjoy an appropriate return on investment;

While the importance of cost reflective prices is widely acknowledged, there have been cases where it has been recognised that fully cost reflective prices may not be achievable as a result of specific market or regulatory circumstances. In these cases, the key issue becomes whether the losses associated with under-recovered revenue should be borne by the service provider (through reduced profits) or 'banked' over the period for which the under-recoveries occur and recovered at a later date when market and regulatory circumstances are more favourable for cost recovery.

From an economic efficiency perspective, the correct incentives for investment are provided when arrangements are made for service providers to recoup under-recovered revenues in the future, provided the investments are efficient and this does not result in any exploitation of market power. Only where investments made by a service provider are inefficient is there a case, from an economic efficiency perspective, for under-recovered revenues to be foregone.

[3] Queensland Competition Authority (2000). Statement of Regulatory Pricing Principles for the Water Sector, p 29.

The arguments in favour of permitting the future recovery of foregone revenues relating to capital costs are as follows:

- it is important that expected returns from sound investment decisions are not truncated;
- long life assets will provide a long-term benefit to customers; and
- artificially constraining service prices will not maintain a service provider's incentive to keep making such long-life investments.

This issue has previously confronted regulated business in other sectors, with four alternative approaches having been considered. These are discussed in the following sections.

3.1 Deferred depreciation

One approach to ensuring the future recovery of foregone revenues is to adjust the depreciation framework that is to apply to the regulated asset. This approach involves altering the economic depreciation profile so that a negative amount of depreciation is attached to the asset value in the early years of its lifetime. This has the effect of increasing the value of the asset in the early years of its life, rather than decreasing its value as is the case under the conventional straight line approach.

The effect of altering the depreciation profile in this manner is to capitalise the losses resulting from the under-recovery of capital costs in the early years of the asset's life into the RAB. This allows for the asset owner to earn a return in the latter years of the asset's life that is commensurate with the return of these under-recovered revenues.

The deferred depreciation approach is best suited for greenfields infrastructure where low levels of demand in the early years of an asset's life result in the initial under-recovery of capital costs. This approach enables these under-recoveries to be capitalised into the RAB and to be recovered in the event that demand grows over time. In the event that future demand does not grow as predicted, the asset owner will be unable to recoup the under-recovered revenue, which will result in the inefficient investment not being rewarded.

The intention of this approach is to achieve alignment between price and the level of demand for the services provided by the regulated asset over time. The approach is theoretically sound as it seeks to align the rate of depreciation with usage levels (i.e. a greater level of depreciation is expected in the later years of the asset's life when capacity utilisation rates are high).

This deferred depreciation approach was accepted by the Australian Competition and Consumer Commission (ACCC) in relation to the Central West Pipeline (CWP) owned by AGL Pipelines (NSW) Pty Limited (AGLP). The ACCC determined that AGLP's proposal for alternative estimates for the value of depreciation to be applied to the pipeline in the early years of its life was the appropriate method for dealing with this increased level of risk of the project.

Based on the conclusions reached in the modelling process, the ACCC approved the addition of a value for negative economic depreciation to the RAB. This resulted in the initial value of the pipeline increasing from $25.93 million as at 30 June 1998 to $29.49 million as at 30 June 1999, and a corresponding increase in the residual value of the pipeline to $45.12 million as at June 2004. Based on the assumptions used in AGLP's revenue model these amounts exactly balance with the expected under-recovery of costs on an NPV basis.[4]

The ACCC noted in its final decision that this treatment of economic depreciation was only deemed feasible due to the fact that it was unlikely that alternative pipelines would be available to the users and potential users of the CWP. This would allow for tariffs to be sustained above long run costs during the period in which the economic value of the pipeline for regulatory purposes exceeds the optimised replacement cost valuation.[5]

3.2 Application of an additional risk premium to rate of return

The second approach to the treatment of under-recovered revenues is to apply an additional risk premium to the rate of return that is to be earned by the owner of the regulated asset. This approach is most suited to greenfields infrastructure projects that involve a higher degree of risk in relation to future revenue streams (i.e. potential for market volatility to result in revenues being foregone).

The application of this approach within a regulatory regime is complicated by the difficulty associated with determining the magnitude of the risk premium that should be applied to the rate of return in order for the asset owner to be sufficiently compensated.

The unique aspect of greenfield projects is generally the higher asset stranding risk compared to mature projects. Stranding risk is not compensated via the cost of equity determined under the Capital Asset Pricing Model (CAPM) used by regulators,

4 ACCC (2000), Final Decision: Access Arrangement by AGL Pipelines Pty Ltd for the Central West Pipeline, p. 58.

5 ibid., p. 71.

because that model assumes that returns are normally distributed. In contrast, stranding risk has a truncated or asymmetric profile. There are a number of ways that this risk could be dealt with.

In our view, the technically correct approach is to include a separate allowance (an 'asymmetric risk allowance') as part of operating expenditure in the cash flows. This allowance is estimated by a probability-based assessment, which quantifies different cash flow outcomes under different demand scenarios.

The alternative is an uplift factor in the cost of equity via the equity beta. Non-regulated businesses sometimes determine this adjustment arbitrarily, however, one approach that could be applied is to estimate a 'blended' beta that recognises the inherent risks of mining and electricity transmission.

However, economic regulators have been hesitant to apply WACC adustments and instead have exhibited a preference for implementing binding no-coverage rulings or price regulation exemptions in cases where there is considered to be significant risk associated with an infrastructure project. These mechanisms serve to promote regulatory certainty and encourage greenfields investment without encountering the difficulties of calculating risk profiles to be applied to asset owners' rates of return.

3.3 Loss capitalisation

The loss capitalisation approach involves the capitalisation of under-recovered revenues into the RAB to be recovered in future years, when circumstances are more favourable for cost recovery. This approach is most appropriate for existing infrastructure investments which are already substantially depreciated and where prices have been constrained by market or non-market (e.g. policy directions) circumstances.

There is the potential for this approach to constrain the service provider's revenue path in a manner that prevents it from receiving returns that are in excess of normal economic returns over the life of the asset base or for the duration of a regulatory period (in NPV terms). This can be achieved through the setting of a medium to long-term price path in order to provide certainty to customers. This price path may also be subject to regulatory scrutiny.

Australian Rail Track Corporation (ARTC) proposed to adopt a loss capitalisation regulatory model in its most recent access undertaking for its Hunter Valley Coal Network. The purpose of the model was to allow economic losses incurred in a given

year to be capitalised into the RAB and recovered in future years. The ACCC acknowledged the appropriateness of the model, stating that:[6]

> …the use of a loss capitalisation model is likely to be appropriate for the HVAU subject to ARTC limiting the pricing certainty facing access seekers, as this should: result in a relatively efficient allocation of risk; help ensure ARTC earns a return commensurate with the regulatory and commercial risk associated with its rail investments in the Hunter Valley; and facilitate efficient investment and use of infrastructure, thereby promoting effective competition in upstream and downstream markets.

The loss capitalisation approach appears to be well-suited to Unitywater's circumstances. This approach would allow for the deferral of water and wastewater price increases in the short-term to mitigate price shocks and enable Unitywater to eventually earn revenues and profits commensurate with its level of efficient investment, while enabling the full impact of the deferred price increases to be spread over a longer time period.

3.4 Revenue cap 'unders and overs' mechanisms

Under deterministic revenue cap controls, a service provider cannot earn more than the MAR set by the regulator for each year of the regulatory period. Hence, any revenue under or over-recovery in a particular year cannot be retained by the service provider but rather must be recouped from or returned to customers at the earliest opportunity. This adjustment occurs through changes to future prices regardless of the reason for the under or over recovery, such as demand fluctuations.

Under a price monitoring framework, revenue under or over-recoveries do not have the same implication because the regulator does not have the power to determine the service provider's prices or revenues.

Based on its actual and forecast revenue under-recoveries over the period from 2010-11 to 2013-14, Unitywater is clearly not exercising any market power in the provision of its water and wastewater services. However, the issue arises as to what should be done, if anything, if there are any periodic revenue over-recoveries in the future.

In our view, under a price monitoring framework, any such revenue over-recoveries could be retained by Unitywater because of their temporary nature, reflecting demand or capital contribution fluctuations beyond Unitywater's control.

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[6] Australian Competition & Consumer Commission (2010). Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking. Draft Decision, p 477.

However, to the extent that there is a sustained period of revenue under-recoveries, as well as customer concerns about water and wastewater price increases, a combined loss capitalisation and unders and overs scheme could be attractive as a means of balancing the interests of Unitywater and its customers. This balance would be achieved by Unitywater recouping any net under-recoveries from its customers over time without causing any price shocks. It is proposed that this dual adjustment mechanism be called a MAT Scheme. Section 4 of our paper discusses how the MAT Scheme could operate.

4 Operation of the MAT Scheme

The MAT Scheme would incorporate three key components:

- a loss capitalisation balance to capitalise net revenue under-recoveries over the period MAR is not achieved on a sustainable basis;
- a medium to long term price path to clear the loss capitalisation balance; and
- an unders and overs mechanism to apply once MAR has been achieved on a sustainable basis.

The first component of the MAT Scheme would be to implement a loss capitalisation revenue balance to capture and annually index Unitywater's expected revenue under-recoveries (and any over-recoveries) due to the provision of water; sewage transport and treatment; and trade waste services to Moreton Bay and Sunshine Coast customers.

The second component of the scheme would trigger when MAR is achieved on a sustainable basis and involve the clearing of the loss capitalisation revenue balance through a medium to long term (10 to 20 years) price path.

At the point MAR is achieved on a sustainable basis, water and wastewater prices would be set each year to achieve their respective MARs, with a simple under and overs mechanism operating to adjust prices with a lag in the event of any annual revenue under or over-recovery relative to MAR. This arrangement would effectively subject Unitywater's water and wastewater prices to a revenue cap control.

4.1 Key parameters of MAT Scheme

There are a number of key parameters of the proposed MAT Scheme, which must be determined and are discussed below.

4.1.1 Separate treatment of water and wastewater service revenues

We propose that the MAT Scheme should have separate loss capitalisation and unders and overs revenue balances for water and wastewater services, reflecting the expected different size of revenue under-recoveries for each type of service. This difference implies different levels of cost reflectivity in water and wastewater prices.

It may also be necessary for these revenue balances to be separated on a regional basis from a cost reflectivity perspective and because different PMPs may be applying in Moreton Bay and Sunshine Coast regions between July 2013 and June 2019. (PMPs were discussed in section 2.1.2 of our report.)

Clearing the loss capitalisation revenue balance should not create distortions in achieving fully cost reflective water and wastewater prices. This would occur if the total under-recovery was shared across water and wastewater services and possibly also by region.

Similarly, any revenue adjustments that occur as part of the unders and overs mechanism should be made in relation to the separate water and wastewater services (and possibly also by region) so as not to distort the intent of the MAT Scheme.

4.1.2 Indexation approach

Reflecting the lags between recoupment from or the return to customers of any revenue under or over-recoveries, indexation of the loss capitalisation revenue balance is appropriate to maintain its value. There are two indexation alternatives, CPI or Unitywater's WACC.

Indexing by CPI will maintain the value of the under-recovery in real terms (ie its value will not be reduced over time due to inflation). However, it means that Unitywater does not earn a full capital return on its investments, as reflected in its approved cost of capital of 9.35%. Use of the CPI as the indexation mechanism would also result in lower revenue balances reflecting a sharing of the revenue under or over-recoveries between Unitywater and its customers.

In contrast, indexing the loss capitalisation revenue balances by WACC would mean that Unitywater earns a full capital return on its water and wastewater investments over time, with no sharing of the under-recoveries with its customers. However, any revenue over-recoveries would be returned to its customers indexed at the higher WACC rate.

We understand that Unitywater is comfortable from a commercial perspective in using CPI indexation.

For illustrative purposes, Tables 3 and 4 show that the expected revenue under-recovery balances between 2011-12 and 2014-15 for water is around $78 million and for wastewater is around $52 million using a CPI assumption of 2.5% per annum.[7] The forecasts of revenue under-recoveries in the tables are Unitywater's latest forecasts as presented in its 2011-12 price monitoring submission.

[7] For 2010-11, it was assumed that the water revenue under-recovery was $13.9 million and the wastewater under-recovery was $6.7 million. Source: QCA (2011), SEQ Interim Price Monitoring for 2010/11 Part B – Detailed Assessment, Final Report, p225.

Table 3 Water revenue under-recovery balance with CPI indexation

	FY2012	FY2013	FY2014
Forecast Revenue	$196.39	$218.94	$243.35
Maximum Allowable Revenue	$224.31	$240.71	$254.62
Under/Over recovery	$27.92	$21.76	$11.27
Compounded to 2015	$29.34	$22.31	$11.27
Capitalised revenue balance			**$77.88**

Table 4 Wastewater revenue under-recovery balance with CPI indexation

	FY2012	FY2013	FY2014
Forecast Revenue	$203.43	$216.41	$230.25
Maximum Allowable Revenue	$218.53	$232.77	$242.67
Under/Over recovery	$15.10	$16.36	$12.42
Compounded to 2017	$15.86	$16.77	$12.42
Capitalised revenue balance			**$52.26**

Based on these indicative numbers, we consider that CPI indexation would be reasonable to adopt for the purpose of the MAT Scheme.

4.1.3 Establishing medium to long term price path

The duration of the medium to long term price path will critically depend on the size of the revenue under-recovery balance established prior to MAR being achieved on a sustainable basis and the primary objective of not causing price shocks for Unitywater's customers over the term of the price path.

It is impossible to identify the appropriate length of recoupment period at this point in time given the uncertainty of Unitywater's expenditure, demand and capital contribution forecasts upon which Tables 3 and 4 are based. However, we would estimate that price paths of around 10 to 20 years would likely be necessary in order to clear balances without causing customer price shocks.

In this regard, the duration of the price path raises intergenerational equity issues in that the weighted average life of Unitywater's water and wastewater assets is likely to be very long, at least 40 years, so which customers should be required to pay for the capitalised losses and over what period is pertinent.

We also consider that the ultimate loss capitalisation balance should be cleared within the chosen term of the price path. Hence, if the balance is not cleared within the chosen term, it would not be recoverable after this point. The purpose of imposing an end date for clearing the balance would be to prevent it becoming a permanent adjustment mechanism that increases in value over time.

The price path to clear the loss capitalisation balance should be established up-front and made clear to Unitywater's customers to promote the transparency of its water and wastewater charges.

4.1.4 Tolerance limits for unders and overs balance

As noted in the preceding section, the recoupment of the loss capitalisation revenue under-recovery through the medium to long term price path would be an additional separately identified component of Unitywater's final water and wastewater prices.

However, once MAR is achieved on a sustainable basis, it is likely that Unitywater's actual revenues will continue to diverge from the respective water and wastewater MARs due to factors beyond Unitywater's control. The third component of the MAT Scheme is intended to subject any such revenue under or over recoveries to an unders and overs adjustment mechanism.

We propose that under this annual unders and overs adjustment mechanism, the revenue balances would be indexed using CPI, consistent with the approach used for the loss capitalisation revenue balance (discussed in section 4.1.2).

In addition, we consider that annual tolerance limits applicable to clearing the respective water and wastewater revenue balances should be based on tolerance levels previously approved by the QCA for electricity distribution.[8]

The suggested tolerance limits for clearing of revenue balances in the year prices are being set are as follows:

- if the balance is less than 2 per cent of the MAR for that year, it will be cleared within one year;
- if the balance is between 2 per cent and 5 per cent of the MAR for that year, it will be cleared over two years

[8] Queensland Competition Authority (2005), Regulation of Electricity Distribution, Final Determination, (April), pp 39-40

- if the balance is greater than 5 per cent of the MAR, Unitywater will submit a plan to the applicable regulator detailing how it proposes to clear the balance.

The intention would be to clear any revenue unders and overs balance as quickly as possible subject to not breaching the tolerance limits. Given prices are set a year in advance and before actual revenues for the current year are known, there will always be at least a one year lag in the clearing of the revenue balance.

5 Conclusion

There is currently a highly uncertain policy and demand environment in relation to the supply of water and wastewater services in South-East Queensland, as well as government-imposed water pricing constraints. This has resulted in Unitywater being constrained from achieving full cost recovery in the supply of its water and wastewater services on a sustained basis nor being able to establish a certain timeframe within which to do so.

It is widely acknowledged in an economic regulatory context that cost reflective pricing and the recovery of all revenues relating to efficient investments are important in creating appropriate ongoing incentives for the efficient use of and continuing investment in infrastructure. It is also important that customers pay no more than an efficient price for the associated services.

The MAT Scheme proposed in this paper is intended to meet these cost reflectivity objectives by creating an adjustment mechanism to recoup any net revenue under-recoveries that will accrue during the current price monitoring period, while ensuring Unitywater does not consistently achieve in excess of MAR once these under-recoveries are recouped. In this way, the interests of Unitywater and its customers can be balanced.

Under the proposed MAT Scheme, Unitywater would develop its annual prices from 2013-14 onwards having regard to clearing the outstanding balance under the MAT Scheme and any subsequent revenue under or over-recoveries relative to MAR. Such a scheme could operate under the existing or any future price monitoring framework, as well as under a deterministic revenue cap control.

Price mitigation plans when finalised by the Moreton Bay and Sunshine Coast Regional Councils have the potential to require the MAT Scheme, tolerance limits or any future price path clearing period to alter and this will need to be taken into consideration when those plans are finalised.

Customer Charter

Our core business is ensuring that, all day, every day, you can turn on a tap or flush your toilet, knowing that you will receive a safe, high quality and reliable water supply and sewerage service.

This charter summarises our commitment to approximately 235,000 residential customers in the Moreton Bay and Sunshine Coast regions.

July 2011

Unitywater

Quality, safety and reliability

Unitywater is a statutory body, providing water supply and sewerage services to the Sunshine Coast and Moreton Bay regions and servicing a population base of more than 674,000 residents across 5,000 sq km.

Twenty four hours a day, seven days a week (under normal operating conditions), we deliver a high quality, safe and reliable water supply and sewerage service that is economically and environmentally sustainable.

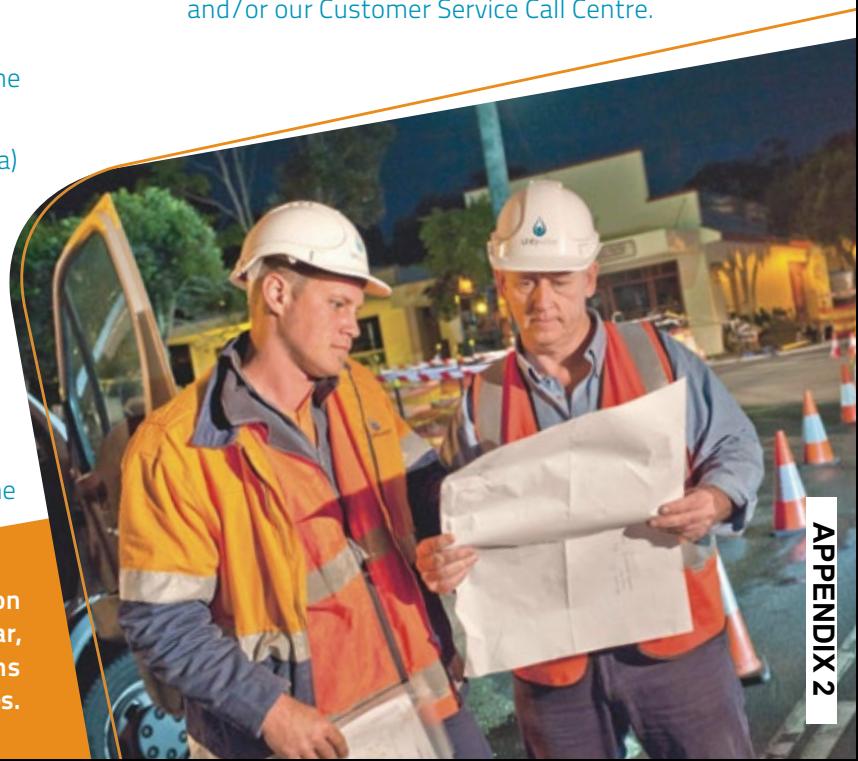
We value our customers, our community and the environment and commit to:

- → Providing you with water that complies with the Australian Drinking Water Guidelines issued by the National Health and Medical Research Council
- → Supplying water at the required pressure (210 kPa) and flow rate (23 litres/minute) to meet your household needs
- → Protecting your health and the environment by operating and maintaining the infrastructure for the effective collection, transport and treatment of sewage
- → 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.

Our crews are on standby 24/7, 365 days a year, to respond to urgent problems and emergencies.

We will do our best to minimise customer inconvenience during planned and unplanned service interruptions, by:

- → Providing you with at least 48 hours notice of any planned works that may disrupt your water supply
- → Communicating with customers, organisations or facilities with identified special needs, prior to planned water supply interruptions
- → In the event of unplanned water supply interruptions, striving to restore normal service levels within five hours, 90% of the time
- → Aiming to have fewer than 15 unplanned water supply interruptions per 1000 homes per year
- → Responding to **urgent** water and sewage incidents in less than one hour, in 90% of cases
- → 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.



APPENDIX 2

Respecting our customers

We value our customers and aim to always respond in a respectful, efficient and timely manner.

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
- **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). You can also submit a question at any time through our website
- **Identifiable** - Our Customer Service team members will provide you with their first name and supply a reference number for customer requests. Our logo uniformed field staff will produce photo ID on request
- **Responsive** - We will answer 80% of calls to our Customer Service Call Centre within 30 seconds and acknowledge written enquiries within 10 days
- **Respectful** - We will treat your information with strict confidence, as per our Privacy Statement and the Information Privacy Act 2009.

Managing your account

We issue accounts quarterly to our Moreton Bay customers and six-monthly to our Sunshine Coast customers. Quarterly billing will commence on the Sunshine Coast from early 2012.

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. 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.

Your itemised account includes all the necessary information to help you understand your water supply and sewerage charges.

We offer a range of options for paying accounts online, in person or by mail.

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.

If you are experiencing payment difficulties please contact us as early as possible to discuss suitable payment arrangements. Our Financial Hardship Policy can be mailed on request, viewed at our customer service counters, or on our website **www.unitywater.com**

Working together

In order for us to maintain your water supply and sewerage services, protect the environment and ensure you are charged correctly, we need your cooperation and assistance.

You can help us by:

- Providing clear and safe access to your water meter for our meter readers
- Checking your own water meter every two weeks to monitor your water usage patterns and for early detection of problems such as concealed leaks
- Maintaining your plumbing, fittings and appliances to prevent wastage and ensure you pay only for the water you use
- Making sure your stormwater runoff is not connected to the sewer
- Not putting any hazardous or toxic substances down the sink, gutter or drain
- Letting us know if you have any special needs that will be unable to be met if your water supply is interrupted
- Advising us promptly of any changes to your contact details or ownership of your property
- Promptly informing us of any issues or concerns regarding Unitywater's areas of operation
- Always contacting Unitywater in the first instance for any water or sewerage related matter.

Handling complaints

If you have any issues with Unitywater we have a thorough internal process to investigate and resolve the matter. We manage complaints in accordance with AS ISO 10002-2006 Customer Satisfaction Guidelines for Complaints Handling in Organisations.

Please contact us first so we can work with you personally to address your concerns. If, following our investigations, the complaint is not resolved to your satisfaction we will escalate your complaint to our Complaint Management Team for review.

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 complaints@ewoq.com.au

More information

Our website has a wealth of information. Visit **www.unitywater.com**

Or you can email us via our online enquiry form or call **(07) 5431 8333**

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Unitywater Service standards (1 July 2010 – 1 July 2011)

Unitywater is required to describe its service standards to apply over the course of the interim price monitoring period.

SAMP Customer Service Standards (1 July 2010 – 1 July 2011)

Description	Service	Region	Unit of measurement	Standard
Number of incidents per 100 km of main causing unplanned interruptions	Drinking water	MBRC Area	incidents/100km main/ yr	<10
Percentage of unplanned service interruptions restored within 5 hrs	Drinking water	MBRC Area	%	>95
Percentage of connections experiencing 1 interruption	Drinking water	MBRC Area	%	<10
Percentage of connections experiencing 2 interruptions	Drinking water	MBRC Area	%	<3
Percentage of connections experiencing 3 interruptions	Drinking water	MBRC Area	%	<1
Percentage of connections experiencing 4 interruptions	Drinking water	MBRC Area	%	<0.2
Percentage of connections experiencing 5 or more interruptions	Drinking water	MBRC Area	%	<0.1
Average interruption duration	Drinking water	MBRC Area	Hours	<3
Percentage of times response on-site were within 3 hrs	Drinking water	MBRC Area	%	>95
Percent of connections with verified deficient flow or pressure	Drinking water	MBRC Area	%	<0.1
Compliance with Australian Drinking Water Guidelines – Microbiological	Drinking water	MBRC Area	%	>98
Compliance with Australian Drinking Water Guidelines - Colour < 15 NHU	Drinking water	MBRC Area	%	>98
Compliance with Australian Drinking Water Guidelines - Turbidity <1 NTU	Drinking water	MBRC Area	%	>98
Compliance with Australian Drinking Water Guidelines	Drinking water	MBRC Area	%	>98
Drinking water quality complaints per 1000 connections	Drinking water	MBRC Area	complaints/ 1000 connections/ yr	<10
Drinking water quality incidents per year	Drinking water	MBRC Area	Number	<250
Sewerage overflows to customer property per 1000 connections per	Waste-water via	MBRC Area	overflows/ 1000 connections/ yr	<10

Description	Service	Region	Unit of measurement	Standard
year	Sewer			
Odour complaints per 1000 connections per year	Waste-water via Sewer	MBRC Area	complaints/ 1000 connections/ yr	<3
Percentage of times response on-site were within 3 hrs	Waste-water via Sewer	MBRC Area	%	>95
Water main breaks per 100 km main per year	Drinking water	MBRC Area	breaks/100km main/ yr	<15
Water losses in litres/connection/day	Drinking water	MBRC Area	litres/ connection/ day	<100
Sewer main breaks/blockages per 100 km main per year	Waste-water via Sewer	MBRC Area	breaks/ blockages/ 100km main/ yr	<18
Sewer inflow/infiltration - ratio of peak day flow to average day flow	Waste-water via Sewer	MBRC Area	Ratio	<5:1
Number of incidents causing an unplanned interruption per 100 km of main per year	Drinking water	SCRC Area	number/ 100km main/yr	<30
Restoration of services within 5 hours following a Priority 1 Event	Drinking water	SCRC Area	%	>90
Ratio of planned to unplanned maintenance	Drinking water	SCRC Area	Ratio	0.5
Response time to Priority 1 Events within 1 hour	Drinking water	SCRC Area	%	>95
Minimum flow expectation at boundary	Drinking water	SCRC Area	Metres	20
Percentage of tests that comply with Australian Drinking Water Guidelines for the reticulation systems over 12 months: e coli	Drinking water	SCRC Area	%	>98
Percentage of tests that comply with Australian Drinking Water Guidelines for the reticulation systems over 12 months: Colour <15NHU	Drinking water	SCRC Area	%	>99
Percentage of tests that comply with Australian Drinking Water Guidelines for the reticulation systems over 12 months: turbidity <5NTU	Drinking water	SCRC Area	%	>99

Description	Service	Region	Unit of measurement	Standard
Number of drinking water quality complaints per 1000 connected water properties per year	Drinking water	SCRC Area	number/1000connected properties/yr	<10
Number of drinking water quality incidents, per 1,000 connected water properties, per year	Drinking water	SCRC Area	number/1000connected properties/yr	<5
Total sewage overflows per 100km of main per year	Waste-water via Sewer	SCRC Area	number/ 100km of main/ yr	<8
Number of sewage overflows to customer property per 1000 connected sewerage properties per year	Waste-water via Sewer	SCRC Area	number/1000connected properties/yr	<2
Number of odour complaints per 1000 connected sewerage properties per year	Other Core Waste-water Services	SCRC Area	number/1000connected properties/yr	<3
Response time to Priority 1 Events within 1 hour	Waste-water via Sewer	SCRC Area	%	>95
Restoration of services within 5 hours following a Priority 1 Event	Waste-water via Sewer	SCRC Area	%	>90
Number of water main breaks and leaks per 100 km of main per year	Drinking water	SCRC Area	number/ 100km of main	<25
Reticulated water supply system loss percentage (unaccounted for water)	Drinking water	SCRC Area	%	<11
Number of sewer main breaks and chokes per 100 km of main per year	Waste-water via Sewer	SCRC Area	number/ 100km of main / yr	<40
Sewer inflow / infiltration – ratio of peak day flow to average day flow	Waste-water via Sewer	SCRC Area	Ratio	<3