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SEQ Interim Price Monitoring:
Assessment of Capital and Operational Expenditure

2010/11 Interim Price Monitoring of SEQ Water and Wastewater Distribution and Retail Activities

Queensland Urban Utilities, Allconnex Water and Unitywater

December 2010

SEQ Interim Price Monitoring

CAPEX OPEX REVIEW

- Rev 3
- 13 December 2010

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Limitation Statement

The sole purpose of this report and the associated services performed by Sinclair Knight Merz Pty Ltd (SKM) is to assist the Queensland Competition Authority (the Authority) in its interim price monitoring obligations to review the capital expenditure and operational expenditure of the newly formed water and wastewater distribution/retail entities within south-east Queensland (the Entities) in accordance with the scope of services set out in the contract between SKM and the Authority. That scope of services, as described in this report, was developed with the Authority.

In preparing this report, SKM has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Authority, the Entities and/or from other sources. Except as otherwise stated in the report, SKM has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

SKM derived the data in this report from information sourced from the Authority, the Entities and/or available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination of the project and subsequent data analysis, and re-evaluation of the data, findings, observations and conclusions expressed in this report. SKM has prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

This report should be read in full and no excerpts are to be taken as representative of the findings. No responsibility is accepted by SKM for use of any part of this report in any other context.

This report has been prepared within the time restraints imposed by the project program. In addition, concerns and discussions regarding confidentiality resulted in delays to the provision of information. These time restraints have imposed constraints on SKM's ability to obtain and review information from the Entities.

This report has been prepared on behalf of, and for the exclusive use of, the Authority, and is subject to, and issued in accordance with, the provisions of the agreement between SKM and the Authority. SKM accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

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1. Executive summary

This report details Sinclair Knight Merz (SKM)'s findings from its review of the capital expenditure (CAPEX) programme budgets and operational expenditure (OPEX) budgets of the newly formed water and wastewater distribution/retail entities within south-east Queensland (SEQ) (the Entities). The Queensland Competition Authority (the Authority) commissioned this review as part of its interim price monitoring obligations in respect of the newly formed Entities.

1.1. Introduction and background

On 1 July 2008, the Queensland Government implemented a series of reforms in the SEQ water industry by establishing four new bulk water entities that own and operate the SEQ Water Grid. Seqwater owns all dams, groundwater infrastructure and water treatment plants in SEQ, WaterSecure owns the Gold Coast Desalination Plant and the Western Corridor Recycled Water Scheme and Linkwater owns the bulk water transmission system. The SEQ Water Grid Manager is responsible for directing the physical operation of the SEQ Water Grid and provides a mechanism to share the costs of the SEQ Water Grid, by acting as the single buyer of bulk water services and the single seller of bulk water for urban purposes. It sells a wholesale "pool" product, which reflects the portfolio cost of supplying retailers with a defined security and quality of supply at a defined bulk supply node.

On 1 July 2010, water reforms in SEQ took another step when three new council-owned distribution and retail businesses commenced operation. These businesses were formed by amalgamating various council-based-and-owned water utilities into three larger Entities. The Entities now own the water and sewerage distribution infrastructure and sell water and wastewater disposal services to customers in their respective areas. The three new water distribution and retail Entities are:

- Queensland Urban Utilities, servicing Brisbane, Ipswich, Lockyer Valley, the Scenic Rim, and Somerset (central areas)
- Allconnex Water, servicing the Gold Coast, Logan and Redland (southern areas)
- Unitywater, servicing the Sunshine Coast and Moreton Bay (northern areas)

In September 2010, the Authority commenced the process of monitoring the prices for water and wastewater services provided by the Entities. The aim of the price monitoring process is to assess the prudency and efficiency of capital costs and reasonableness of operational costs, and therefore, charges to customers within the monopoly distribution and retail businesses, to encourage sustainable water practices within the SEQ water industry.

To aid this process, the Authority appointed SKM to review the capital and operating expenditure forecasts and associated information for regulated services over the regulatory period from July 2010 (expected to be three years). The Authority has to ensure that only expenditure for the regulated services is included in the cost base of these services.

This interim price monitoring is being carried out against a backdrop of:

- Entities in an establishment phase
- Historic data to be provided by previous service providers (councils) that may not have collected the data or collected it for different purposes and in a different format to what is required
- Entities developing processes and systems for:
  - Capital works evaluation, approval and budgeting
  - Operational expenditure budgeting

1.2. Key issues

There are several aspects of the CAPEX and OPEX review of both a generic and a specific nature that are important to take into account to give the review context. Issues of a specific nature relate to the recent changes in the ownership and operation of the water and wastewater systems and services in SEQ, the recent formation of the Entities and the background to the interim price review being undertaken by the Authority.

In any review of this type, access to current and accurate information is vital for assessing whether a proposed item of expenditure is prudent and efficient or reasonable. Given that the Entities have only recently been formed, they are almost entirely reliant on the data provided by the councils that previously owned and operated the facilities now in their control. As such, the Entities have been obliged to collate data from a range of data systems and data that was developed for a range of processes. That is, each council tended to have its own process for evaluating capital projects and developing capital project budgets. Equally, some of the data required for this review may not have needed to be captured by the councils, or indeed, may have been captured for different purposes and therefore may not be in a form that could be easily assimilated by the Entities.

Further, the councils have generally had different systems, processes and service delivery standards, against which capital and operational budgets have been developed. This has further compromised the Entities' ability, in the time available, to fully evaluate capital expenditure programmes developed by the councils against their own in-house systems or normalise the service standards against which projects have been assessed.

We are of the belief that the difficulties faced by the Entities in gathering the necessary data for this review and these historic, non-common processes or standards for budget development has contributed to the number of capital projects identified as "not prudent or efficient". We also believe as the Entities develop their internal systems; this data recovery problem will be overcome.

The generic issues relating to the categories against which capital project expenditure is assessed are outlined below:

Growth: This category relates to projected future growth consumption, either by rising demand by the existing customer base and/or by increasing the number of customers. This is the most significant driver and its use to underpin project justification is dependent on accurate forecasts on increases in usage by customers. In SEQ, this is complicated by the transition from drought conditions and the potential for "bounce back" in consumption after the drought. Changes in usage patterns, eg increased use of recycled water, also complicates the Entities' ability to accurately forecast future demand.

Improvements: This driver underpins capital projects driven by a requirement to improve services standards. For the initial price monitoring, assessment against this category was complicated by the fact that, historically, there had not been a common set of service standards adopted across the councils providing the services. As such, the Entities are still harmonising the standards of service applied across their geographic area. This is perhaps the least understood driver for underpinning capital project spend and there is merit in establishing common standards across all the Entities to facilitate evaluation against this criteria in future years.

Renewals: This category relates to capital projects triggered by the need to replace aged assets. Ideally, the assessment is undertaken not simply on the age of the asset, but the condition of the asset and its ability to meet future service delivery requirements without experiencing excessive maintenance costs. As such, the ability to draw accurate and current information from a robust asset database is key to justifying capital project expenditure against this criteria.

Compliance: This category relates to the need to update or develop new capital assets to meet changes in legislation, predominantly environmental legislation, eg to meet targets on reduction in nutrient discharge levels, wastewater overflows, odour and, for example, to meet higher levels of operational health and safety. This is perhaps the most definitive driver against which to assess prudency.

In respect of operational expenditure budgeting, the key assessment criteria is reasonableness. An evaluation of reasonableness depends on the use of historic data from a base year to which appropriate cost escalators are applied for future years and adjustments made for changes in the asset base/(such as the installation of new, large capital plant, or, alternatively, the decommissioning of plant). It is good practice to link capital works associated with technical improvements or replacement of aged assets to the OPEX budget as this will usually reduce operational spend for the service delivery associated with those assets. Further, changes in operation and maintenance practices, eg from time based to condition based, will impact OPEX and have to be taken into account. Finally, it is important to be able to draw on a comprehensive, accurate and current asset database when developing OPEX budget forecasts. We understand that each of the Entities has to update their programme of works and improve their asset registers.

For both operational expenditure and capital project cost forecasting, we consider it important to apply escalators appropriate to the cost items being forecast. We understand the Authority recommended that CPI is used as an escalator for capital expenditure. Queensland Urban Utilities and Unitywater adopted this recommendation (Allconnex selected an escalator of five per cent). The Authority has not made any recommendations on the use of CPI for operational costs. Previous QCA decisions have used other, more specific escalators for operational costs, such as labour and electricity indexes.

We feel there would be merit for future price monitoring exercises to consider other price escalators/indices or compound indices more representative of cost items, such as labour, material and construction contract costs. Generally, CPI has not been a good proxy for variations in such cost items.

Finally, when undertaking a CAPEX programme review as part of price monitoring exercise that supports the establishment of a regulated asset base (RAB) for a regulated entity, we consider it important to distinguish

between the timing of spend on a capital project and the date at which the equipment or capital plant is added to the asset register, and hence, to the RAB. Currently, each Entity takes a different approach to this and there is merit in adopting the same approach. We would recommend taking a pragmatic approach when capital plant (and costs) are added to the RAB. That is, plant and equipment should only be added to the RAB when it begins contributing to regulated service delivery for which it was commissioned. In this sense we support the Authority's decision to add assets to the RAB once they have been commissioned and are contributing to service delivery. For projects commissioned in stages, the same principle should apply. That is, the equipment associated with a commissioning stage (and its costs) should only be added to the RAB when that stage being commissioned contributes to the regulated service delivery. If a particular project stage relies on a subsequent stage to contribute to service delivery, it should only be added to the RAB when the subsequent stage has also been commissioned.

1.3. Capital expenditure review

Our review of capital expenditure was undertaken in two components.

Component 1 – Adequacy of information

Firstly, we assessed whether each of the Entities provided sufficient information for a thorough review of the prudency and efficiency of capital expenditure to be undertaken.

Component 2 – Prudency and efficiency of capital costs

The second component of work was an assessment of the prudency and efficiency of capital costs.

Prudency was evaluated against the following drivers:

- Growth – capital expenditure associated with increasing the capacity of assets or construction of new assets, to meet growth in demand or provide additional security of supply, should be included in growth
- Renewal of infrastructure – capital expenditure associated with replacing assets and generally maintaining service levels should be included in renewal of infrastructure
- Improvements – capital expenditure associated with improving service levels and reliability to meet customer preferences should be included in improvements
- Compliance – capital expenditure associated with meeting price monitoring or legislative obligations should be included in compliance

Efficiency was evaluated by assessing:

- The scope of work, which involved the consideration and inclusion of options identification, investigation and assessment
- The standards of work, which involved the consideration and inclusion of technical, design and construction requirements, industry and other relevant standards
- The market conditions, which involved comparing projected costs with industry benchmarks and with our in-house knowledge of the cost of constructing water and wastewater projects

Our review was undertaken on a project/capital works programme sample basis. The principle objective was to evaluate a representative a sample of projects as possible for each Entity within the time available. To achieve this, we selected projects that:

- Included at least 10 per cent of the overall capital project spend
- Represented both large value- and medium-value projects
- Incorporated a geographic spread of projects

1.3.1. Overall findings

Following our review, we assigned the projects into one of four categories:

- Information provided demonstrated project to be prudent and efficient
- Information provided demonstrated project to be not prudent and/or efficient
- Insufficient information provided to demonstrate project is prudent and efficient
- Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development

We recommend that for projects where insufficient information was provided to demonstrate prudency and efficiency, but that the level of information was consistent with the stage of development, the project should remain within the forecast capital expenditure but be reviewed during future evaluations. If removed from the budget, this is likely to disrupt service delivery in the future. Including these costs enables the Entities to undertake the appropriate preliminary works and produce sufficient supporting documentation. For projects demonstrated by the information provided not to be prudent and/or efficient or where no information was provided to support the project, these costs should be removed from capital expenditure forecasts.

Following our review, we determined that that for our sample the vast majority (over 95%) of capital projects scheduled for 2010/11 fiscal year for the Entities was prudent and efficient.

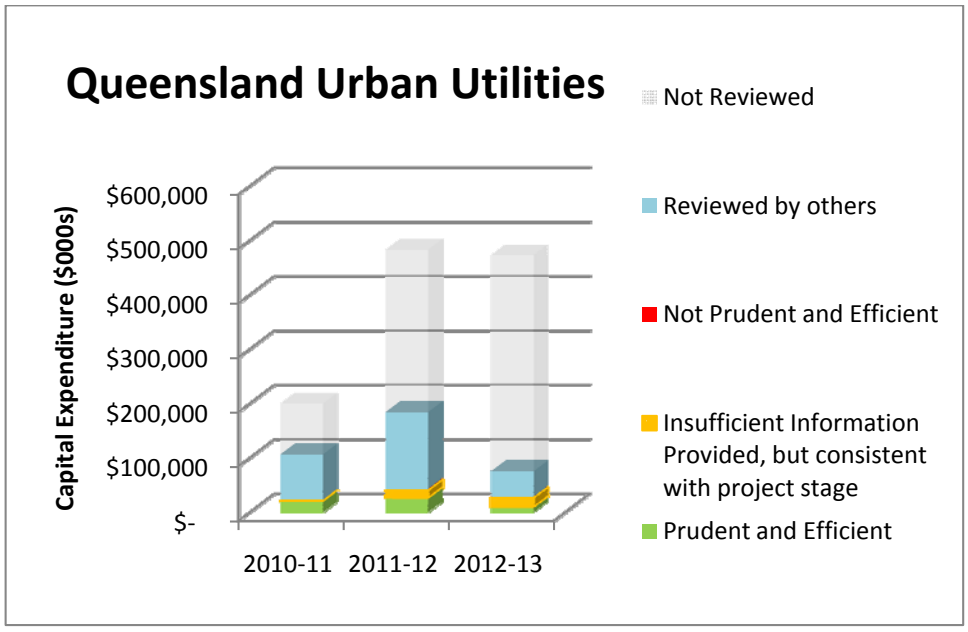
For the 2011/12 and 2012/13 fiscal years:

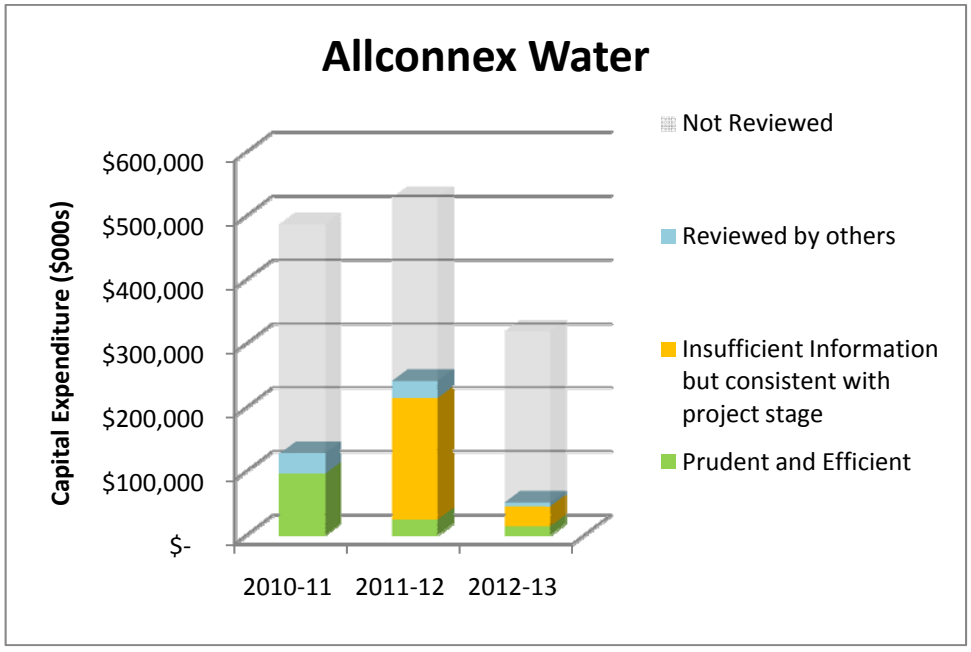
- 30% of the sample ($141 million) was found to be prudent and efficient
- 2% of the sample ($9 million) was found to be not prudent and efficient
- 1% of the sample ($6 million) could not be assessed as information was not provided and is therefore classed as not prudent and efficient
- 67% of the sample ($314 million) was assessed as having insufficient information to demonstrate it to be prudent and efficient, but that the level of information is consistent with the stage of development. We recommend these projects be further reviewed before approval.

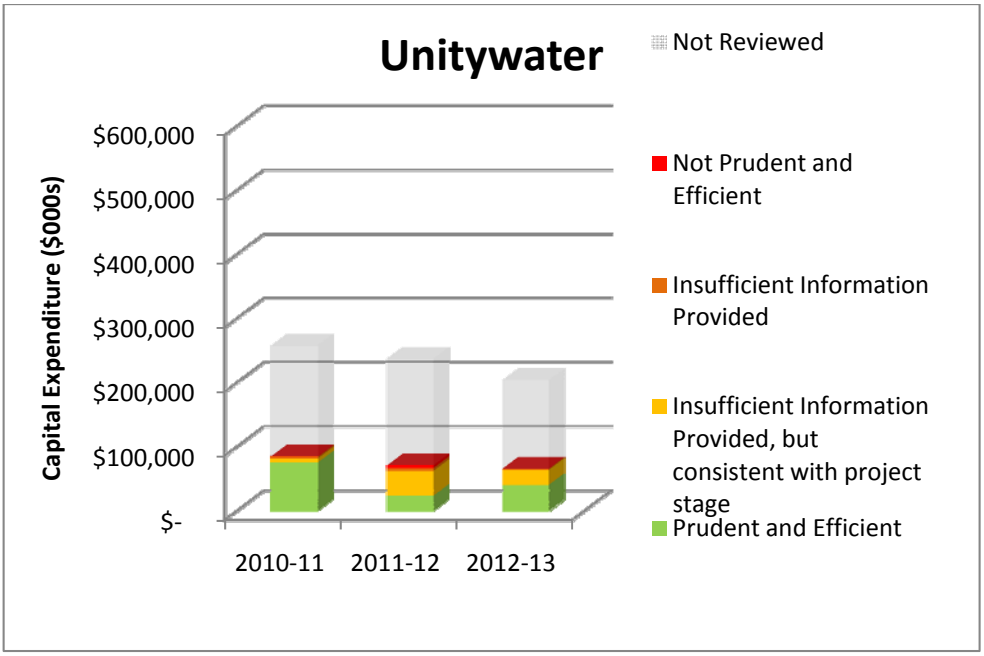
The reasons for the majority of the sample to be included the last category lie with the relative short timeframe the Entities have been in place and that they are still developing systems and processes for capital project evaluation and approval.

No attempt was made to extrapolate these findings to the proportion of capital expenditure forecast not reviewed by SKM, due to the sample size reviewed.

The following graphs show the results for each Entity.







1.4. Operational expenditure review

Our review of operating expenditure was undertaken in two components.

Component 1 – Adequacy of information

Firstly, we assessed whether each of the water Entities provided sufficient information for a thorough review of the reasonableness of operating costs to be undertaken.

Component 2 – Reasonableness of operational costs

The second component of our work was to assess the reasonableness of operating costs.

We conducted the review on an operational cost element sample basis. The principle objective was to evaluate transparent operational costs that could be easily benchmarked against other similar utilities.

The representative sample for operating costs was selected as:

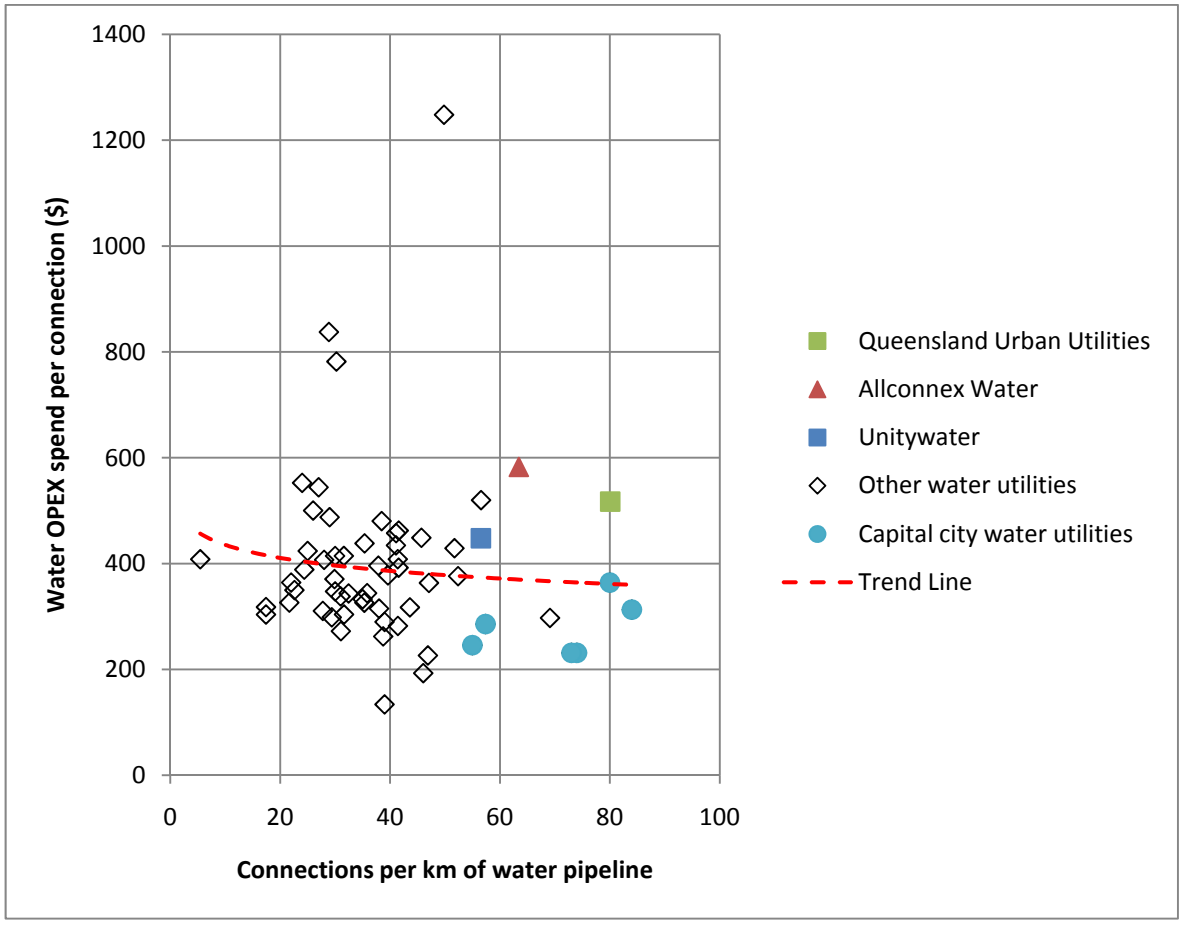
- Employee costs
- Corporate costs
- Electricity
- Chemicals

Together, these account for 70 per cent of the controllable operating costs for FY11 to FY13.

1.4.1. Overall findings

We compared the aggregate operating costs for the Entities against those of other water utilities in Australia. We then developed a cost curve for aggregate costs using a "two-dimensional" normalisation against the size of the network (length of pipeline) and customer density to compare different sized water utilities.

Shown in the figure below, the operating costs for Queensland Urban Utilities, Allconnex Water and Unitywater for water activity are higher than those of their like-sized peers, notably water utilities in other Australian capital cities. This can largely be attributed to the cost of bulk water in south-east Queensland being significantly higher than in other Australian capital cities.

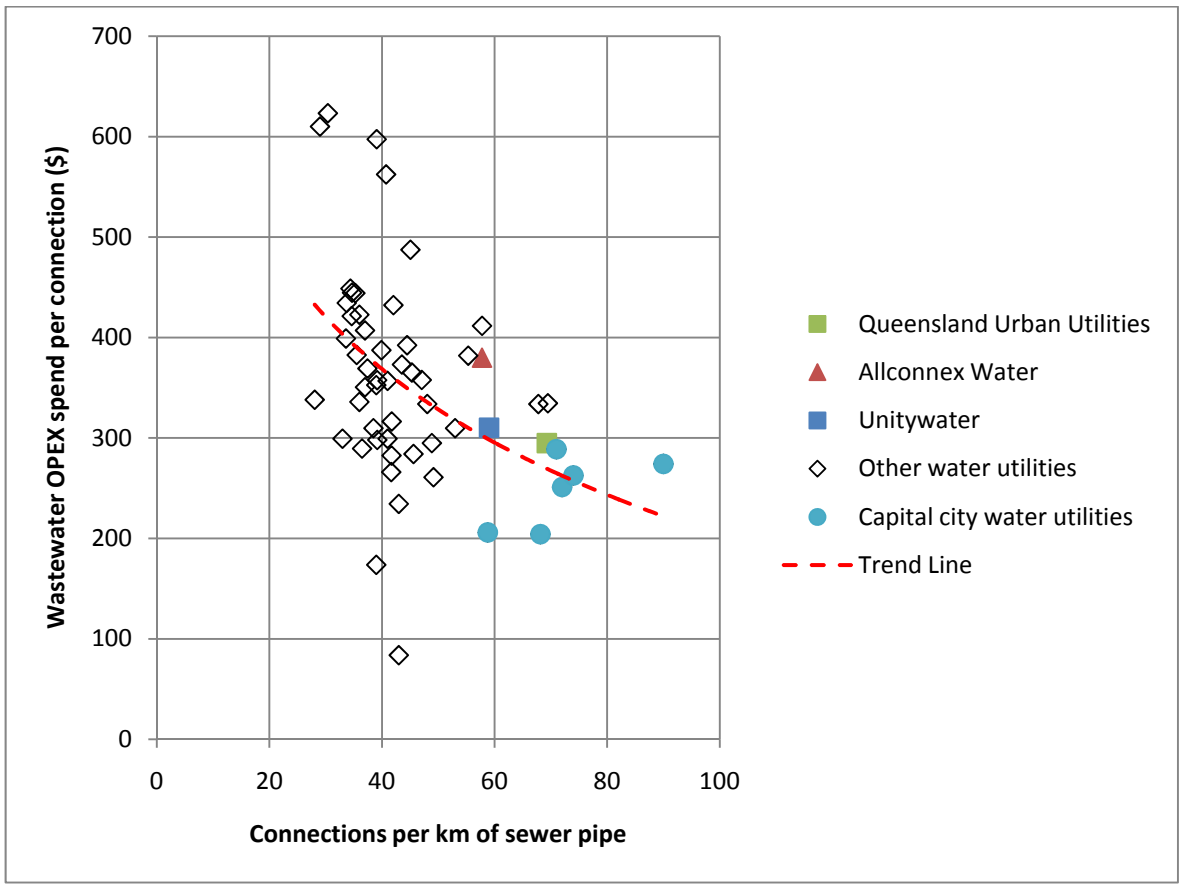


Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

Comparative data was sourced from National Water Commission which reports 2008 expenditures for several water utilities around Australia. A CPI index (*ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities)* was applied to the data to adjust the costs to 2010/11 dollars.

We also undertook a similar comparison for the wastewater activity. Operational costs for both Queensland Urban Utilities and Unitywater are in line with the trend of other Australian water utilities. Wastewater operating costs for Allconnex Water are higher than the trend line, driven by the additional cost of providing Class A+ recycled water in Coomera and Pimpama.

The cost of treatment is another variable within the analysis, and this should be taken into account when analysing the results. Operating costs will vary, depending on the number of treatment plants, capacity of the treatment plants and the level of treatment, including whether or not recycled water systems are present.



Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

For the cost categories within the sample of operational costs we found:

- Bulk water costs are the key driver behind the increasing overall operating costs. Bulk water is both the largest cost category (38-51% of overall operating costs) and has the greatest cost escalation over the monitoring period (~20%).

- Employee costs are constrained by the water reform *workforce framework*. The cost escalation factors used by the three Entities are in line with industry projections.
- In the case of Allconnex Water and Unitywater, corporate costs are reducing over the monitoring period as the Entities develop their in-house capabilities and phase out service level agreements with councils.
- Cost escalation for electricity ranges from 2.5% to 10% per annum for the three Entities.
- Cost escalation for chemicals ranges from 2.5% to 3.5% per annum for the three Entities.

1.5. Summary and conclusions

Across all the Entities, we found the vast majority of the capital expenditure costs for 2010/11 projects to be prudent and efficient. Several projects for later years were found not have sufficient information available to be adequately assessed. This deficit in information is not unexpected given the short time the Entities have been in existence and given several these projects are rolling programmes where project documentation is developed on a year by year basis for future years' budgeting.

Similarly, we found the operational expenditure budgets for the Entities to be reasonable and within industry benchmark, when the difference in bulk water transfer costs are taken into account. For some Entities, we recommend a revision of forecast electricity costs as the budget figures are below market expectations. Likewise, we aligned the cost escalation factor for chemical costs to CPI with a 0.5% allowance for savings through synergies and economies of scale.

2. Introduction

2.1. Background

The Queensland Competition Authority (the Authority) is commencing the process of monitoring the prices for water and wastewater services provided by the three water distribution/retail Entities within south-east Queensland (SEQ) (the Entities). The Entities are:

- Queensland Urban Utilities
- Allconnex Water
- Unitywater

These three Entities own, operate and maintain the water and wastewater distribution infrastructure and are responsible for the retail sale of water supply and wastewater services to customers. The purpose of the monitoring is to review the costs and revenues associated with the provision of the provision of water and wastewater services by the three Entities. The three Entities are monopoly providers in neighbouring areas. The aim of the price monitoring process is to assess the prudency and efficiency of capital costs and reasonableness of operational costs, and hence, charges to customers within the monopoly distribution and retail businesses, to encourage sustainable water practices within the SEQ water industry.

To aid this process, the Authority appointed Sinclair Knight Merz Pty Ltd (SKM) to review the capital and operating expenditure forecasts and associated information for regulated services over the regulatory period from July 2010 (expected to be three years) as part of the Authority's interim price monitoring of the new Entities for financial years 2010/11. The Authority has to ensure that only expenditure for the regulated services is included in the cost base of these services.

2.2. The role of the Authority

The Authority is an independent statutory authority established by the Queensland Competition Authority Act 1997 and is responsible for regulating prices, access and other matters relating to regulated industries in Queensland. Under the Queensland Competition Authority Act, the Authority's roles, in relation to the water industry are to:

- Investigate and report on the pricing practices of certain declared monopoly or near monopoly business activities of state and local governments
- Receive, investigate and report on competitive neutrality complaints
- Mediate and/or arbitrate access disputes and water supply disputes
- Investigate and report on matters relevant to the implementation of competition policy

In July 2010, the Queensland Premier and the Queensland Treasurer referred the monopoly distribution and retail water and wastewater activities of Queensland Urban Utilities, Allconnex Water and Unitywater to the Authority for a price monitoring investigation. The Authority's price monitoring role was set out in the Authority's *Final Report,*

*SEQ Interim Price Monitoring Framework (*April 2010). The role requires the Authority to monitor and report on prices and revenues.

2.3. Formation of Entities

Several significant changes have occurred within recent history, which has resulted in the current formation of the three retail and distribution Entities. The price monitoring process must be cognisant of these recent developments and the influence of these on the availability of information and the consistency of policies and procedures within these Entities.

2.3.1. Council amalgamations

In 2007, an extensive local government reform was undertaken. As a result of this, in 2008, several councils amalgamated, and in some cases, council boundaries were redefined. The largest impact was for the northern councils. The Sunshine Coast Region was created by the amalgamation of the city of Caloundra and the Maroochy and Noosa Shires. The Moreton Bay Region replaced three established local government areas, the city of Redcliffe and the Pine Rivers and Caboolture Shires.

Other areas also experienced significant changes. The Lockyer Valley Region was created from a merger of the Gatton and Laidley Shires and the Somerset Region was created from a merger of the Esk and Kilcoy Shires. The Scenic Rim Region was previously parts of several local government areas: the Shire of Boonah, the southern rural part of the Shire of Beaudesert, and Harrisville and Peak Crossing from the city of Ipswich.

2.3.2. Water reforms

Since 2008, the Queensland Government has implemented several different reforms. The Queensland Water Commission (QWC) released a report outlining recommendations for future institutional arrangements for urban water supply and wastewater services in south-east Queensland. The aim of the new institutional arrangements is to align the way in which retail water and wastewater services are provided with the way other utilities are provided.

The Queensland Government adopted many of these recommendations. The report suggested:

- The aggregation of bulk supply and transport assets from 22 asset owners into three new State-owned bulk water Entities
- The creation of a State-owned Water Grid Manager to manage regional water supplies
- The creation of local government-owned retailer Entities
- The aggregation of all regional distribution infrastructure into a single local government-owned distribution Entity

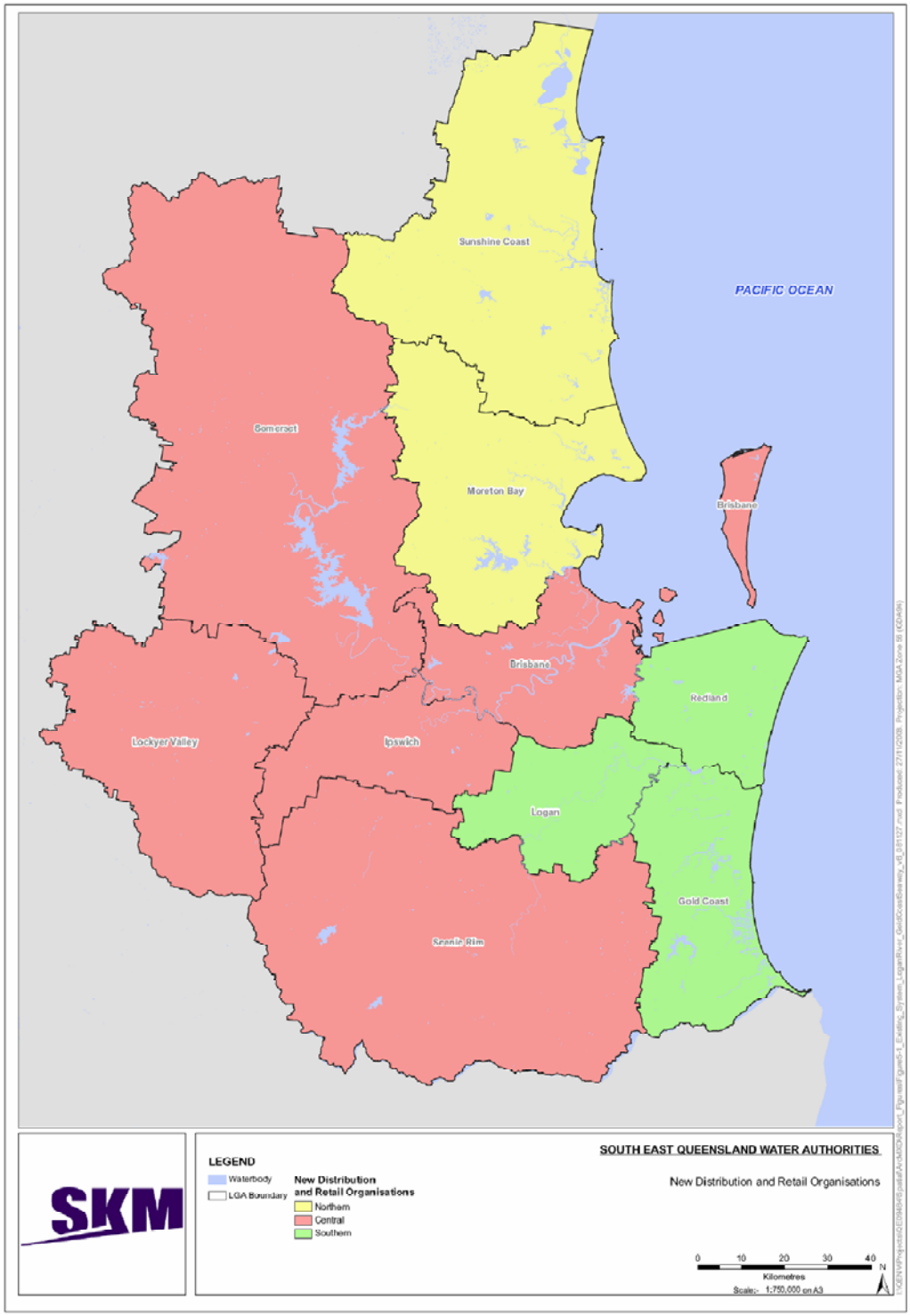
Following further reviews, a final model was adopted, with the creation of three retail and distribution Entities. The Water Reform was implemented in two stages.

On 1 July 2008, the Queensland Government implemented a series of reforms in the SEQ water industry by establishing four new bulk water Entities that own and operate the SEQ Water Grid. Seqwater owns all dams, groundwater infrastructure and water treatment plants in SEQ while WaterSecure, owns the desalination plant at the Gold Coast and the Western Corridor Recycled Water Scheme. The bulk water transmission system is owned by Linkwater. The SEQ Water Grid Manager is responsible for directing the physical operation of the SEQ Water Grid and provides a mechanism to share the costs of the SEQ Water Grid, by acting as the single buyer of bulk water services and the single seller of bulk water for urban purposes. It sells a wholesale 'pool' product, that reflects the portfolio cost of supplying retailers with a defined security and quality of supply at a defined bulk supply node.

On 1 July 2010, SEQ water reforms took another step when three new council-owned distribution and retail Entities commenced operation. These Entities were formed by amalgamating various council-based-and-owned water utilities into three larger water Entities. These water Entities now own the water and wastewater distribution infrastructure and sell water and wastewater disposal services to customers in their respective areas. As mentioned in 2.1, the three new water distribution and retail Entities are:

- Queensland Urban Utilities, servicing Brisbane, Ipswich, Lockyer Valley, Scenic Rim, and Somerset (central areas)
- Allconnex Water, servicing the Gold Coast, Logan and Redland (southern areas)
- Unitywater, servicing the Sunshine Coast and Moreton Bay (northern areas)

The geographical arrangement of the three new water Entities and the local government areas they service are depicted in Figure 1-1.



- **Figure 1-1 Operating areas of south-east Queensland water Entities**

2.4. Background to capital expenditure and operating expenditure review

As part of the process of structural reform, the new distribution and retail Entities will be subject to economic regulation. As the first stage in this process, the monopoly distribution, and retail water and wastewater businesses of these Entities have been referred to the Authority for interim price monitoring. The Authority has identified information requirements for interim price monitoring for the financial year 2010/11 and issued each of the Entities with information templates that indicate the form and nature of information required. Two years of past data and three-year forecasts were required from the Entities by the Authority.

SKM was commissioned by the Authority to:

- Assess whether the information provided by each Entity is comprehensive and accurate for the purpose of price monitoring, identity and obtain further information required for the purpose of price monitoring and determine whether or not the information was accurately entered into the relevant information templates.
- Provide independent specialist advice on the prudency and efficiency of the Entities' capital expenditure against relevant service standards, and the demand forecast provided by the Authority.
- Provide independent specialist advice on the reasonableness of forecast operating costs from 1 July 2010 against relevant service standards, and the demand forecast provided by the Authority.

Our review has been carried out based on the information provided by the Entities in their submissions. During the formation of the Entities the optimisation of policies and procedures and integration of the business may disrupt the capital works programme.

In undertaking the commission, we were cognisant of:

- The very short time the Entities had existed at the time of this interim price review and that they are still being established
- The historic data required for regulatory price monitoring may not have been collected by the councils previously providing the regulated services
- The data collected and the form in which it was collected historically by the councils previously providing the regulated services may not have been collected for purposes consistent with the requirements of the pricing review and may not be in a format required for the pricing review information returns.

2.5. Terms of reference

The Terms of Reference for capital expenditure and operational expenditure are presented below.

2.5.1. Capital expenditure review

Our review of capital expenditure was undertaken in two components.

Component 1 – Adequacy of information

Firstly, we assessed whether each of the Entities provided sufficient information to enable a thorough review of the prudency and efficiency of capital expenditure which included:

- Ensuring a comprehensive and accurate information return was provided by each Entity. This included information relating to capital expenditure, service standards and the regulatory asset lives for capital expenditure.
- Ensuring that in establishing the new water business that only allowable establishment costs were those as advised by the Minister for Natural Resources, Mines and Energy and Minister for Trade.
- Confirming that capital expenditure from 1 July 2008 to 30 June 2010 matches the costs within the relevant council's financial accounts
- Selecting a sample of forecast capital expenditure from 1 July 2010 and establishing that each Entity has provided sufficient information on the standards of service, the scope and costs of capital expenditure projects and the project cost drivers to enable a review of prudency and efficiency.

Component 2 – Prudency and efficiency of capital costs

The second component of work was to assess the prudency and efficiency of capital costs, which included:

- Confirming each Entity's policy and procedures for capital expenditure are in line with recognised industry good practice
- Assessing the prudency of the selected sample
- Assessing the efficiency of a selected sample
- Assessing opportunities for efficiency gains and economies of scale
- Assessing the implication of revised operational expenditure projects and revised demand forecasts
- Commenting on the progress of the new Entities in developing systems and processes that will enable highly disaggregated data for future price monitoring reviews.

2.5.2. Operational expenditure review

Our review of operating expenditure was undertaken in two components.

Component 1 – Adequacy of information

Firstly, we assessed whether each of the Entities has provided sufficient information to enable a thorough review of the reasonableness of operating costs, including/which included:

- Establishing whether or not a comprehensive and accurate information return was provided by each Entity. This included information relating to operating costs, third party transactions and related party transactions.
- Confirming that in establishing the new water business that only allowable costs as advised by the Minister for Natural Resources, Mines and Energy and Minister for Trade are included.
- Confirming whether or not that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and deliver are passed through to customers in full.

- Evaluating whether or not a sample of forecast operating costs and establishing that each Entity has provided sufficient information to enable a review of reasonableness.

Component 2 – Reasonableness of operational costs

The second component of work was to assess the reasonableness of operating costs, which included:

- Confirming that each Entity's policy and procedures for the preparation of operation expenditure are in line with recognised industry good practice
- Assessing operating expenditure in aggregate and comparison with industry peers
- Assessing a selection of operating expenditure, including a comparison with industry peers, analysis of historical trends and prevailing market conditions.
- Identifying opportunities for efficiency gains and economies of scale
- Assessing the constraints placed on the Entity from the SEQ Urban Water Arrangements Reform Workforce Framework 2010
- Assessing the implication of revised capital expenditure projects and revised demand forecasts
- Commenting on the progress of the new Entities in developing systems and processes that will enable highly disaggregated data for future price monitoring reviews

As well as assessing capital and operational costs, SKM verified auxiliary data. This is included in a separate report: *SEQ Interim Price Monitoring: Auxiliary Data Verification, 2010/11 Interim Price Monitoring of SEQ Water and Wastewater Distribution and Retail Activities* (SKM, October 2010).

2.6. Exclusions from scope

Demand forecasting

Our scope of work specifically excludes an analysis of demand forecasting for the Entities. This work is being undertaken by Frontier Economics and will be presented in a separate report. However, we reviewed Frontier Economics' draft recommendations and discussions on the impact of demand forecasting on capital expenditure and volumetric-based operational expenditure are contained within this report.

Capital expenditure projects

Our scope of work includes reviewing a sample of forecast capital expenditure from 1 July 2010 and establishing that these works are prudent and efficient. Several projects selected for review have not been reviewed by us, as there is a perceived conflict of interest, given our current or prior involvement with this project. It is understood that these projects have been reviewed by a third party. The analysis of these projects is contained in a separate report.

Operational expenditure

The exclusions within the assessment of operating costs are as follows:

A "workforce framework" was implemented to provide guidance during the water reform process. In providing advice on employee costs, we have accepted the constraints that the framework has on the operation of the Entities in the period to 30 June 2013. Our assessment is limited to evaluating the reasonableness of employee costs under this framework. An assessment as to whether the workforce framework itself is reasonable is not within our scope of work.

Cost charged by the SEQ Bulk Water Manager for bulk water storage, treatment and delivery have been subject to price monitoring elsewhere and is not a cost that is controllable by the Entities. Our assessment does not included comment as to whether the unit costs charged for bulk water are reasonable.

2.7. Structure of the report

The remainder of this report is structured as follows:

- Chapter 3 provides an overview of the key issues and common themes across the Entities
- Chapters 4, 5 and 6 present our assessment of the prudency and efficiency of capital expenditure and reasonableness of operating expenditure for each Entity
- Chapter 7 provides the conclusions from our assessment

2.8. Reference documentation

In assessing the level of adequacy within data provided to the Authority, we have referred to the guidelines within the following documentation:

- The Authority's document, "*SEQ Interim Price Monitoring Information Requirements for 2010/11*", July 2010 (QCA information requirements)
- The Authority's document, "SEQ *Interim Price Monitoring Guideline for Templates for 2010/11* Version 1.0", May 2010 (QCA template guidelines)

In response to the Authority's information request, each Entity has provided a submission, including:

- A completed information requirement template
- Supporting documentation, including a written submission and other relevant information

A full list of information presented to the Authority is presented in Appendices A1, B1 and C1.

3. Key issues

3.1. Data collection

One of the key inputs for capital expenditure and operational expenditure budgets is data from councils.

The new Entities have only been in existence since 1 July 2010, and have been wholly reliant on councils to supply historic data to create financial models and populate the Authority's information requirement template. In the case of Queensland Urban Utilities, data from five councils was required.

Data collection by the Entities was complicated by:

- No common systems across councils. The nature of councils who formerly provided the waster businesses varies from the highly urbanised geographic areas with large populations, such as Brisbane and the Gold Coast, through to the smaller regional councils of Lockyer Valley and Somerset. Often, the sophistication of data and level of detail provided was reflective of the size of the councils.
- Data was not always captured at the appropriate level by council. The water services provided by councils were not always operated as a separate water business – this was particularly the case with smaller councils. This leads to the situation where historic costs cannot be easily apportioned to the regulated activities, or indeed, to the water operation itself. A specific example of this is customer service, which would respond to enquiries about all of council services. Consequently, it is not always appropriate to read the data provided in the information requirement template as five years of consistent data.
- Timeframe. The collection of data, creation of financial models and budgets was undertaken within a very short timeframe.

3.2. Cost drivers

The Authority identified four cost drivers for the assessment of prudency for capital expenditure projects. Projects are considered prudent if they are required to meet:

- Growth – ie volume-related growth, due to increase in demand/customers
- Improvements – ie driven by imposed standards of service, or reduce future OPEX
- Renewals – ie replacement of aged/time expired assets
- Compliance – ie more demanding environmental legislation (eg nutrient emissions, pump station overflows, odour, etc.)
- A combination of the above

3.2.1. Growth driver

Growth is the most significant cost driver. It is dependent on several factors, including:

- Accurate forecasts of increased usage per customer. Trends in water usage have been impacted by the recent drought and water conservation measures introduced. Future forecasts have to take into the consideration "bounce back" effect after the drought. Whilst increases are expected once water conservation measures are reduced, some factors, such as the implementation of water-efficient fittings and fixtures and rain water tanks, will have a long term effect.
- There is limited historic demand data available. Where it was available it was drawn from multiple sources (councils) and the data collection methods varied.
- There are changes in usage patterns. Alternative sources of water have been introduced to reduce the reliance on potable water, such as rainwater and recycled water. The introduction of these alternative water sources will impact the demand for potable water. As a number of these systems have only recently been introduced on a large scale, there is limited data available on the quantum of this impact.
- Accurate forecasts in the increase in the number of customer connections. South-east Queensland is experiencing rapid growth and there are also lifestyle changes which can be linked to economic growth.
- Reliable long-term forecasting for long term assets. Water and wastewater assets can have asset lives in excess of 50 years. Therefore, it is necessary to adequately size these assets for future years. Design of these assets has to incorporate population growth, as well as peaking factors. The impact of demand forecasting and water conservation measures also has to be taken into account.

The Authority has engaged Frontier Economics to review the short-term and long-term demand forecasting for each of the Entities. When assessing projects with a primary cost driver of growth, we relied on the growth forecasts the Entities. We also considered the impacts of the recommendations from Frontier Economics.

3.2.2. Renewals

This category relates to those capital projects triggered by the need to replace aged assets. Ideally, the assessment should be based on not only age of the asset, but the condition of the asset and its ability to meet future service delivery requirements without experiencing excessive maintenance costs. As such, the ability to draw accurate and current information from a robust asset database is key to justifying capital project expenditure against this criteria. The level of data collected by each of the previous councils on asset age and maintenance history will impact the level of justification available for renewal of assets.

There is generally a trend towards proactive asset management, where Entities are moving towards a system based on condition assessments and risk assessment to select and prioritise asset renewals. The Entities are embarking on processes of updating council asset information, which should facilitate the future justification of renewals projects.

3.2.3. Improvements

This driver underpins capital projects driven by a requirement to meet improvements in services standards.

For the initial price monitoring, assessment against this category was complicated by the fact that, historically, there has not been a common set of service standards adopted across the councils previously providing the services. As such, the Entities are still in a process of harmonising the standards of service applied across their geographic area.

There are no defined regulatory standards of service. This will become more important under a regulatory regime. Under the *South East Queensland Water (Distribution and Retail Restructuring) Act 2009,* the Minister is expected to develop a water and wastewater customer code to provide for minimum and guaranteed service standards for the Entities' customers. This is expected to occur by 30 June 2011.

A high-level comparison of the customer standards currently used by the Entities is shown in Table 2-1. As Allconnex Water has differing customer standards across its three geographic areas – Gold Coast, Logan and Redlands – these are presented separately. The service standards for Unitywater are *proposed* service standards, and have not yet been adopted. Where information is provided, the service standards are comparable for each of the Entities, with the exceptions of non-urgent response times, which is unlikely to affect capital works programmes.

- **Table 2-1 Comparison of standards of service**

	Queensland Urban Utilities	Allconnex – Gold Coast	Allconnex – Logan	Allconnex – Redland	Unity Water	Comment
Water						
Health, physical and chemical	Comply with the National Health and Medical Research Council's current version of the Australian Drinking Water Guidelines, as well as meeting World Health Organisation requirements for water quality.	99% Tests meeting NHMRC Australian Drinking Water Guidelines			>98% of tests that comply with Australian Drinking Water Guidelines for the reticulation systems over 12 months	The service standards are comparable
Complaints	Less than 9 complaints per 1000 properties per year.	Water quality complaints 3 per 1000 properties connected	Water quality complaints 10 per 1000 properties connected per year	Water quality complaints <4 per 1000 properties connected	Drinking water quality complaints <5 per 1000 properties connected per year	The service standards are comparable
Incidents	Water quality incidents will be restricted to less than7 per 1000 properties per year.		Water quality incidents 10 per 1000 properties connected per year	Make sure there are no more than 12 water quality incidents caused by the distribution network each month	Water quality incidents <2/1000 connections/ yr	The service standards are comparable
Water supply	90% restore within 5 hours	95% fault repair within 5 hours	89% Repair within 5 hours.	Restore 97% within five hours	>85% Restoration of services within 5 hours following a "priority 1" event	The service standards are comparable
Incident response – high priority	Respond to a water service request within 1 hour for incidents involving environmental or individual/public risk matters (for example, no water, dirty	95% response time for "priority 1" events within 1 hour	89% response time within 4 hours	Respond to loss of supply within one hour on the mainland	>85% Response time to "priority 1" events within 2 hours	The service standards are comparable

	Queensland Urban Utilities	Allconnex – Gold Coast	Allconnex – Logan	Allconnex – Redland	Unity Water	Comment
	water)					
Incident response – non-urgent	Respond to a water service request within 24 hours for incidents involving a non-urgent failure of service, with repairs undertaken within five days.	Non urgent fault, but significant in the belief of the customer ("priority 3"), Response time 95% Within 36 hours, repairs to commence 95% Within 48 hours		Respond to general requests within five working days.		The incident response times for non-urgent faults ranges from 1 day to 5 days, however the definition of non-urgent may vary between Entities.
Planned interruptions		Planned 80 per 1000 properties connected	Planned 1:3 of total interruptions. *(SKM has calculated this to be less than 75 per 1000 properties connected)*	For planned works involving interruption of your water supply over an hour, Allconnex Water gives you at least 48 hours' notice and advises when we expect the supply to be restored.		Information was not available for Queensland Urban Utilities or Unitywater. The others are comparable.
Unplanned interruptions to supply		Unplanned less than 150 per 1000 properties connected	Unplanned less than 150 per 1000 properties connected	Make sure there are no more than 2 incidents caused by unplanned interruptions in the distribution network for every 1000 connections	Unplanned interruptions to supply <20/100 km of main/ yr *(SKM has calculated this to be approximately less than 4 per 1000 properties connected)*	The service standards are lower for two of Allconnex Water's areas.
Interruptions			1:3 ratio of planned to unplanned interruptions – Water		0.15 to 0.3 Ratio of planned to unplanned interruptions – water	Information was not available for Queensland Urban Utilities, Allconnex Water – Gold Coast, Allconnex Water – Redland. The others are comparable.

	Queensland Urban Utilities	Allconnex – Gold Coast	Allconnex – Logan	Allconnex – Redland	Unity Water	Comment
Pressure	12 to 21 metres head at the meter.	22 metres static head in the main adjoining the property boundary	Minimum 22 metres static head at the meter	Minimum 22 metres static head.	Water pressure at property boundary >200kPa (*20m head*)	The service standards are comparable
Volume	Minimum 30 litres per minute.		Minimum 24 litres per minute at the meter	98 per cent of properties have minimum 30 litres per minute at the meter		Of the information available the supply volumes are comparable.
Wastewater						
Incident response - Priority	Respond to a wastewater service request within 1 hour for incidents involving environmental or individual/public risk matters (for example, sewerage overflows).		Response time within 4 hours	Respond to 90 per cent of wastewater blockages or overflows within one hour, restore service to customers within five hours following an incident.	>85% response time to "priority 1 events" within 2 hours, restoration of services within 5 hours following a "priority 1" event	The service standards are comparable
Incident response – non-urgent	Respond within 24 hours for incidents involving a non-urgent failure of service, with repairs undertaken within five days			Respond to general requests within five working days.		Of the information available the supply volumes are comparable.
Sewerage overflows	Total sewerage overflows (primarily comprising minor incidents) will be less than 2500 per year. (*This was calculated this to be equivalent to less than 29 per 100 kms of mains).*		Wastewater overflows less than 30 per 100 kms of mains	Wastewater overflows less than 8 per 100 kms of wastewater and rising main.	Wastewater overflows less than 20 per 100 kms of mains	Redland has a slightly tighter service standard, while the others are comparable.

	Queensland Urban Utilities	Allconnex – Gold Coast	Allconnex – Logan	Allconnex – Redland	Unity Water	Comment
	Overflows onto a customer's property will be less than 1.5 per 1000 properties per year.		Overflows onto a customer's property to be less than 5 per 1000 properties per year.	Overflows affecting customers less than 2 per 1000 properties per year.	Overflows affecting customers less than 5 per 1000 properties per year.	The service standards are comparable
Odour complaints	Less than 1 per 1000 properties connected	Less than 1 per 1000 properties connected	Less than 2 per 1000 properties connected	Less than 0.85 per 1000 properties connected	Less than 3 per 1000 properties connected	The service standards are comparable
Sewer main breaks			Sewer main breaks and chokes less than 60 per 100 kms of mains		Sewer main breaks and chokes less than 40 per 100 kms of mains	Of the information available the supply volumes are comparable.
Sewer infiltration			Sewer inflow and infiltration peak day flow (ML/day)/ average day flow (ML/day) = 2.5		Ratio of peak day flow to average day flow = 3.5	Of the information available the supply volumes are comparable.

3.2.4. Compliance

Compliance includes capital expenditure associated with meeting price monitoring or legislative obligations. This category is predominantly driven by changes in environmental legislation eg reduction in nutrient discharge levels, wastewater overflows, odour and operational health and safety requirements. This is perhaps the most definitive driver against which to assess prudency.

Of particular note for Entities is the augmentation of wastewater treatment plants. In general, where a wastewater treatment plant is augmented (for any reason), resulting in capacity increases over a predetermined level (usually 10%), it triggers a requirement for the entire plant (not just the expansion project), to meet modern-day licence conditions. This is a unique feature of the water industry and is a significant contributor to capital expenditure in wastewater.

3.3. Polices and processes

As expected of newly formed Entities, each Entity is still developing standardised policies and processes. Generally, each Entity has selected the best practices and processes from each of the councils and is working towards implementing them across its entire business. They need time to develop, optimise and implement these new processes. Consideration is also required for projects already underway using previous procedures.

Each of the Entities has indicated it will work to develop standardised systems and processes over the 2010/11 financial year. This will facilitate the consistent selection and prioritisation of capital and operational expenditure from all geographic areas.

3.4. Expenditure versus commissioning

While undertaking a CAPEX programme review that supports the establishment of a regulated asset base (RAB), we consider it important to distinguish between the timing of spend on a capital project and the date at which the equipment or capital plant is added to the asset register and hence to the RAB. The SEQ Interim Price Monitoring Framework Final Report states:

> *"work in progress should be capitalised at the rate of return and included as capital expenditure once it is fully completed and able to contribute productive capacity to the system".*

Currently, each Entity takes a different approach to this and there is merit in standardising the approach. We would recommend taking a pragmatic approach to when capital assets (and costs) are added to the RAB. That is, assets should only be added to the RAB when it begins contributing to regulated service delivery for which it was commissioned. For each Entity's large capital projects, the anticipated project completion or commissioning date should be documented.

For projects commissioned in stages, the same principle should apply. That is, the equipment associated with a commissioning stage (and its costs), should only be added to the RAB when that stage being commissioned

contributes to the regulated service delivery. If a project stage is reliant on a subsequent stage to contribute to service delivery, it should only be added to the RAB when the subsequent stage has been commissioned.

Unitywater indicated that the Authority should consider a wider discussion on the regulatory framework, encompassing:

- As commissioned versus "as incurred"
- Related issue of treatment for work in progress
- Model templates roll forward and building block
- Modelling simplicity
- Reasonableness of a mid-year assumption for capitalisation
- Commencement of regulation depreciation as mid-year or beginning of next financial year
- Compensation for working capital costs
- Prudent and efficient inventories and stores levels

3.5. Operational expenditure/capital expenditure split

There are several projects for which the decision to classify the project as capital works rather than operational works may be questioned. According to the *SEQ Interim Price Monitoring Information requirements for 2010/11* (QCA, July 2010) capital expenditure means:

> *"any expenditure, which has been disclosed as a non-current asset in the balance sheet of the entity's statutory accounts and Budget provided that the expenditure conforms with at least one of the following:*
>
> - *The expenditure relates to the purchase, development or construction of a new noncurrent asset of the Entity*
> - *The expenditure will increase the capacity or functionality of the Entity's non-current assets*
> - *The expenditure will significantly reduce the ongoing maintenance of the Entity's non-current assets*
> - *The expenditure will extend the service life of the Entity's non-current assets beyond that expected when the assets were originally installed"*

We recommend that in future, the Authority considers reviewing whether projects have been appropriately classified as capital or operational expenditure. This could include reviewing the policies the Entities use for assigning capital and operational costs.

3.6. Consumer Price Index (CPI)

For capital project cost forecasting, it important to apply escalators appropriate to the cost items being forecast. We understand that the Authority has recommended that CPI be used as an escalator for capital expenditure and Queensland Urban Utilities and Unitywater adopted this recommendation (Queensland Urban Utilities took CPI forecasts and Unitywater adopted the Australian Central Bank's target rate, Allconnex Water used 5%). However, there would be merit for future price monitoring exercises to consider other price escalators/indices or a compound indices that is more representative of cost items, such as labour, material, construction contract costs.

Based on the *SEQ Interim Price Monitoring Information Requirements for 2010/11* (QCA, July 2010), Section 5.9 states that each Entity must index:

> *"the forecast RAB values and capital expenditure for each year of the interim period from 1 July 2010 to 30 June 2013 using forecasts of consumer price index (CPI) as determined by the difference between the RBA return on the market rate for five year bonds and five year capital indexed bonds"*

We note that the method of predicting CPI suggested by the QCA, in determining, "the difference between the RBA return on the market rate for five year bonds and five year capital indexed bonds" could cause potential calculation errors. These could be avoided, given that the RBA's Statement of Monetary Policy provides a table of expected CPI for two years.

We consider the methodology for forecasting CPI adopted by the AER in the Electricity and Gas Industries more efficient. It adopts the following process:

- Plot two years of forecasts from the most recent RBA Monetary Policy Statement (the August 2010 Monetary Policy Statement, forecasts are available for years ending June 11 and June 12)
- Plot CPI as the RBA inflation target's midpoint of 2.5% (Updating these with the monetary policy forecasts for the relevant periods, as they become available).

The CPI figures developed using this method are presented in Table 2-2.

Table 2-2 Forecast CPI figures

Year to June	2010	2011	2012	2013	2014	2015
CPI Forecast	3.1%	3.25%	3.0%	2.5%	2.5%	2.5%

In previous assignments where CPI is used as a proxy for expected increases in the cost of undertaking CAPEX and OPEX activities, we have found that several utilities and regulatory bodies have suggested using the midpoint of the RBA's 2-3% Target CPI range as a likely outlook for CPI going forward.

However, we have established that since first targeting its current range of 2-3% in 1993, the RBA has historically achieved an *actual* average Year to June CPI of 2.7%[1], and over the last five years, the *actual* CPI achieved through this targeting regime has resulted in an average Year to June CPI of 3%, both higher than the 2.5% midpoint of the RBA's target range.

This "above the midpoint of the RBA's targeting range" historic CPI result is illustrated in Figure 2-1 below.

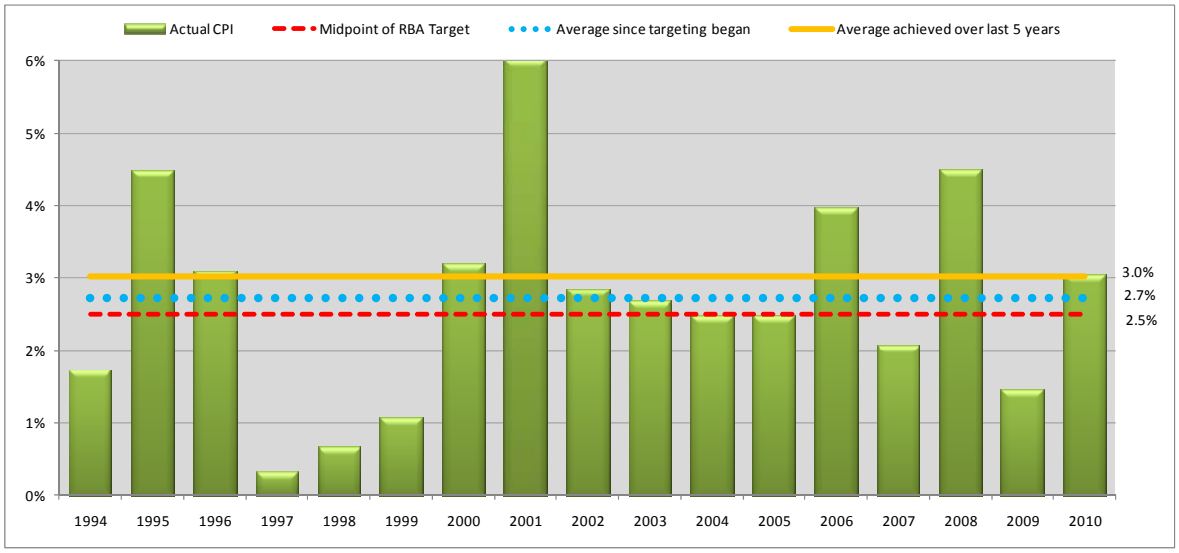


Figure 2-1 RBA historic CPI targeting results

Therefore, we consider that including the *midpoint* of the RBA target range in forecast cost calculations provides a highly conservative (ie. low) estimate of the likely position of this particular cost pressure.

CPI as a proxy for infrastructure cost escalation

As the name suggests, the Consumer Price Index was developed to map the cost of living for typical consumers in the public domain. We believe this index does not adequately reflect changes in either the market forces of demand and supply, or the input costs (materials and labour) of CAPEX and OPEX projects within the water industry.

We have been actively researching the increasing cost of capital infrastructure works for some time, particularly in the parallel electricity and gas industries, and has developed a cost escalation modelling process which captures the likely impact of expected movements of specific input cost drivers on future infrastructure pricing.

The World Bank's June 2008 report "Study of Equipment Prices in the Energy Sector" stated:

[1] ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities.

> *"In the past four years, global demand has led to substantial increases in equipment and material prices in the power sector. This is mainly due to significant increases in the escalation of raw material materials and labour associated with the manufacture and fabrication of equipment"*

Dedicated market research studies on the prices of equipment, the cost of undertaking CAPEX activities, and the cost of typical OPEX activities, undertaken by SKM in 2006 and 2010, demonstrated that from around 2003, prices for electrical network equipment, which had previously been assumed to escalate in line with increases in CPI, were escalating in excess of CPI, and in certain cases, substantially.

Although these studies were aligned to the electricity transmission and distribution networks, we would expect a similar (ie. in excess of CPI) cost escalation in the water networks. This belief is based on similarities in the commodities sourced in the manufacture of water network plant and equipment, and similar increases in the demand for such items, through organic growth in the size of networks and increases in replacement regimes to counter the effects of an aging network.

Therefore, we believe adopting CPI as a proxy for utility plant and equipment cost increases provides a highly conservative outlook of the costs that can reasonably be expected to be incurred.

Whilst Unitywater used the Authority's recommended method of calculating indexation and adopted a rate of 2.48%, Queensland Urban Utilities used a rate of 2.5% and Allconnex Water adopted a rate of 5%.

The following section discusses the comparison between CPI and other available construction indices, including the ABS construction indices, the Construction Forecasting Council (CFC) trends and trends in raw materials.

Allconnex Water selected a higher rate than CPI as:

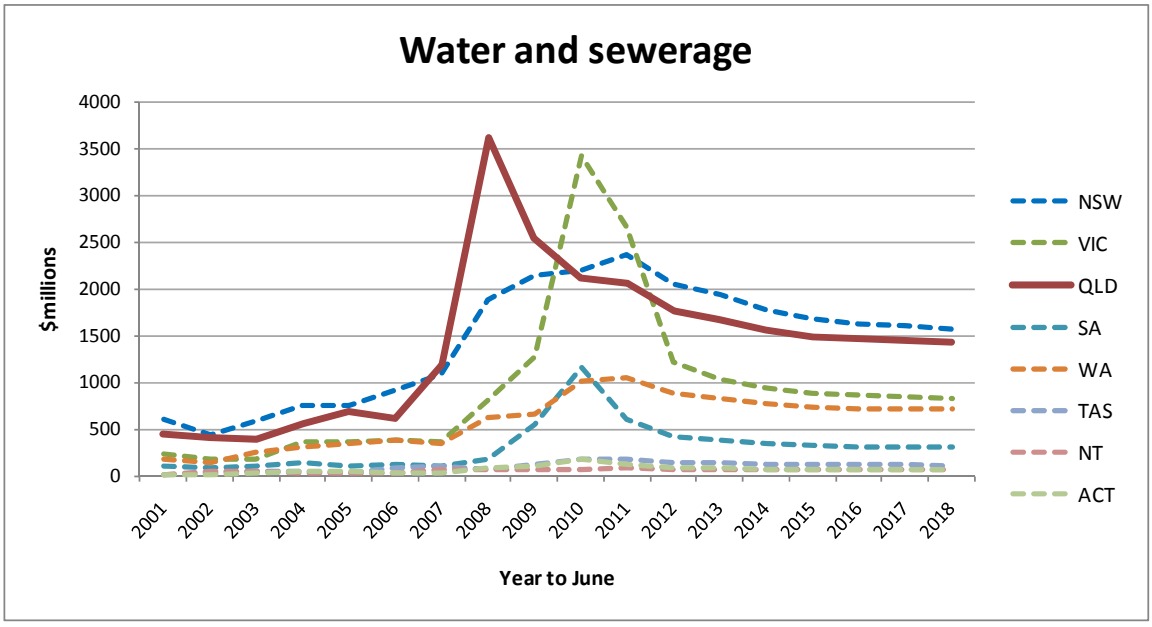
> *"Construction costs in general have continued to rise faster than CPI. This trend is expected to continue, with construction costs/unit rates expected to increase even where Allconnex Water's capital program is outsourced to the private sector through competitive tender or delivered through alliances with costs confirmed by independent verification.*
>
> *Since ABS has collected data on construction indices, the average annual increase from March 1999 to March 2010 was 5.0%[4] compared with 3.3% for CPI.*
>
> *[4] The roads and bridges index has been utilised for this comparison due to changes in ANZIC classification occurring in September 2009. ABS reclassified Division E Construction in accordance with the new ANZIC codes which resulted in subdivision 41 has become subdivision 31. However, with the aligning to the new sub-classifications, the non-building general classification has been removed and the division contains data only on the roads and bridges classification."*

Whilst the use of ABS rates provides a good indication of historical trends, we believe rates should be based on forecasts of industry performance.

The Australian Construction Industry Forum (ACIF)[2] is the peak consultative organisation of the building and construction sectors in Australia. The ACIF has established the Construction Forecasting Council (CFC)[3] through which it provides a tool kit of analysis and information.

In publishing its most recent set of activity forecasts, the CFC said:

> *"Water and sewerage construction activity has surged to a very high $10 billion in 2009/10 compared to around $2 billion only five years ago. This surge has been driven by the government's move to address the inadequacies in Australia's water infrastructure. In particular, a series of desalination plants has boosted this type of construction. Looking further out, the construction of many large-scale projects like desalination plants are coming to an end. However, there will be a need to undertake maintenance on existing water facilities that has been delayed while these large-scale projects have been constructed. Hence, water and sewerage construction activity is forecast to ease from its current very high level, to a more sustainable, but solid level."*



- **Figure 2-2 CFC Water industry construction outlook**

However, we note that the CFC outlook is the expected value of work based primarily on the known volumes (projects already underway and imminent). It is widely understood that many of the skill sets required within the water utilities are interchangeable with those required within the electricity, gas and mining industries, and with strong outlooks for growth in these alternative industries, especially the well publicised development of the liquefied

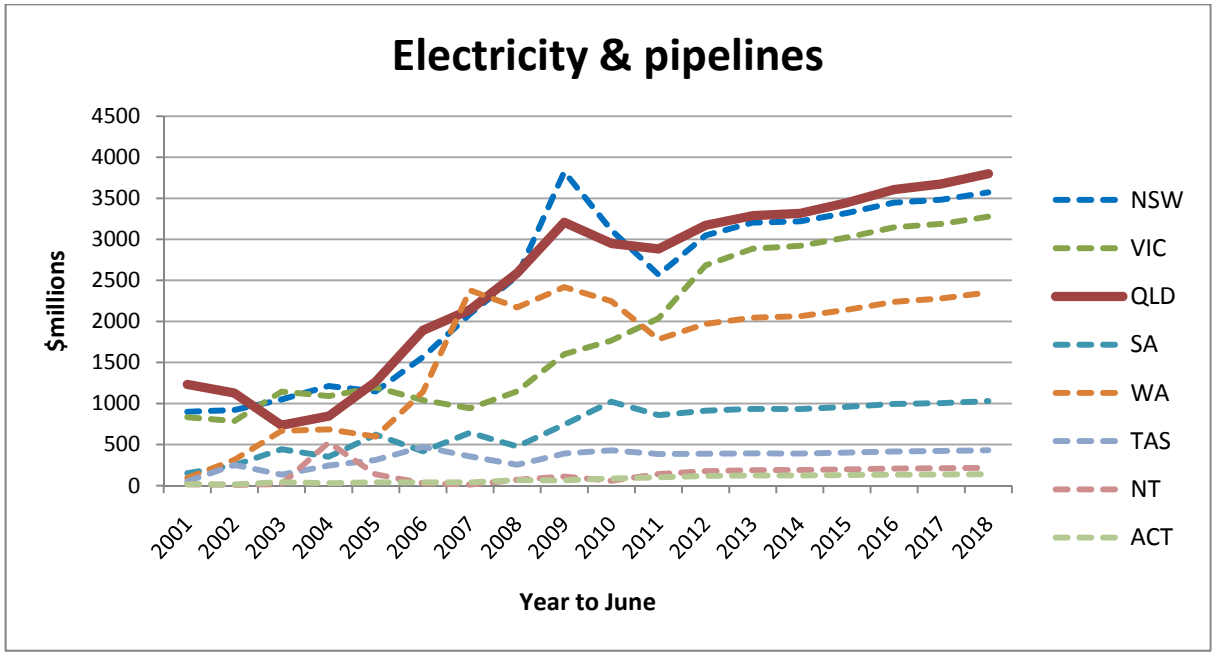
2 http://www.acif.com.au/
3 http://www.cfc.acif.com.au/cfcinfo.asp

natural gas and coal seam methane industry within Queensland, the state's water industry is likely to encounter increasing labour cost pressures in its efforts to attract and retain a skilled workforce.

In commenting on activity in construction related to the electricity industry, the CFC notes:

> *"Electricity and pipeline construction is set to be a major growth area over coming years thanks to a combination of the development of Australia's natural gas deposits in Queensland and on the North-West Shelf, the need for replacement of our coal-fired electricity generation network, and a desire to replace these with "greener" electricity generation"*[4].

Figure 2-3 illustrates the CFC's outlook for electricity and pipeline construction demand to 2017-18. This clearly shows how Queensland is expected to experience a comparatively larger forward programme of construction in this sector, when compared to the other states and territories.



- **Figure 2-3 CFC Electricity and pipeline construction outlook**[5]

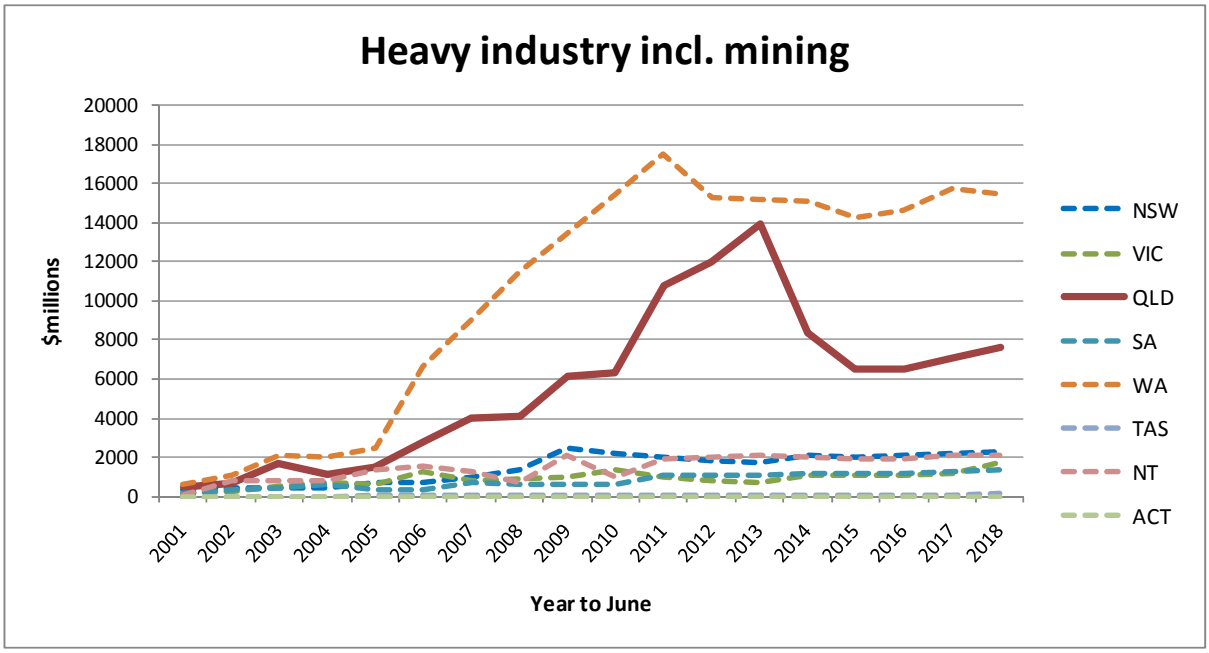
In delivering its mining-related outlook, the CFC notes:

> *"Mining construction continues to strengthen, with activity at a high $27 billion in 2009/10. Mining construction activity is forecast to remain high, as new projects commence. The Greater Gorgon gas project commenced in the December quarter 2009, raising ABS commencements to a whopping $43*

[4] http://www.cfc.acif.com.au/summary.asp
[5] http://www.cfc.acif.com.au/forecast_results.asp

*billion. Further out, projects like the Alpha coal project, the Curtis Island gas project and the APLNG projects – **all in Queensland** – will keep mining construction high."[Emphasis added]*

Figure 2-4 illustrates this significant growth in Queensland's mining sector construction activity.



- **Figure 2-4 CFC Mining construction outlook**

This outlook of strong growth in the short term within the electricity, gas and mining industries in Queensland is likely to sustain the market demand for related construction materials, and thus, the resultant market prices, which, as with the direct labour resources, compete, at least to some extent, with resources required within the water industry.

To support this position, we sought to understand the forecast movement in prices for individual component drivers of water infrastructure project costs, such as concrete and steel.

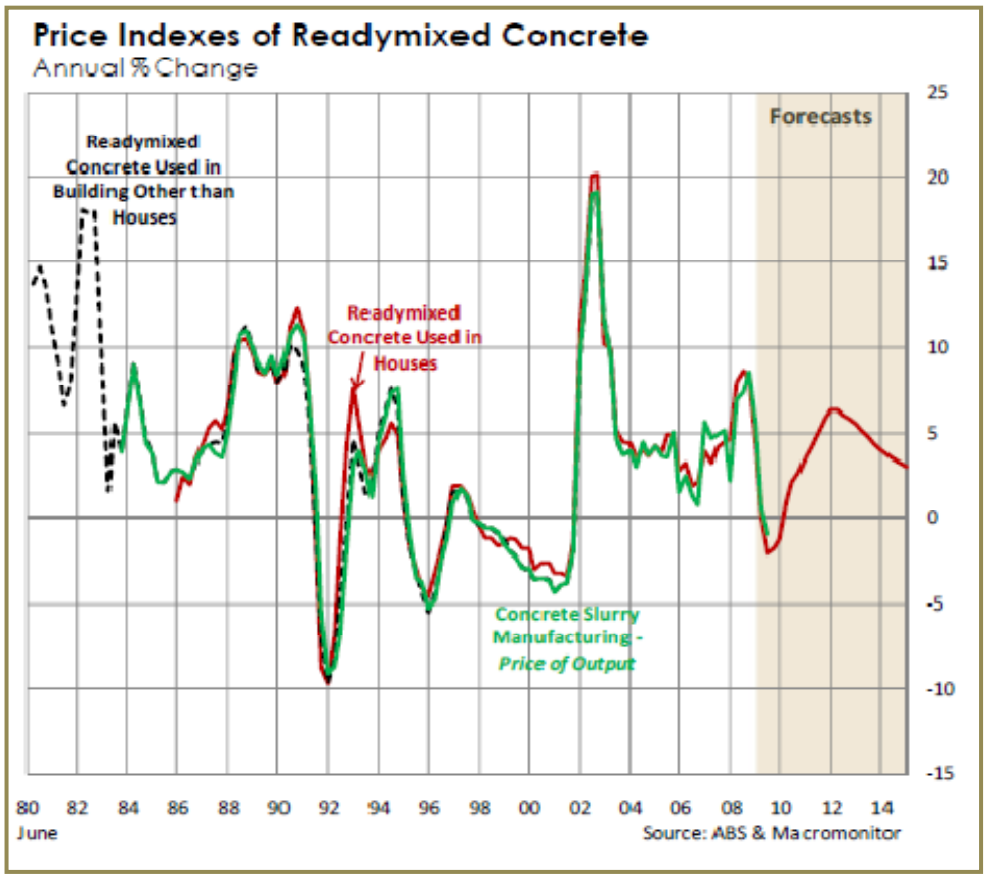
Concrete

The latest publically forecast of concrete costs from a credible forecaster was found to be the March 2010 outlook of Macro monitor, as published in Appendix 3.b.7 of the JEN Gas Networks (NSW) submission to the AER.[6]

For the period 2011, this forecast shows that concrete prices are foreseen to increase by 3.6%.

6 http://www.aer.gov.au/content/index.phtml/itemId/735202

Figure 2-5 below is an excerpt from this report.



- **Figure 2-5 Macro-monitor outlook for concrete pricing**

Steel

We sought to understand steel price movements through the outlook presented through the Consensus Economics quarterly publication "*Energy and Metals Consensus Forecasts.*"

Consensus Economics Inc.[7] is a leading international economic survey organisation in the United Kingdom. Its publication "*Energy & Metals Consensus Forecasts*" is a comprehensive, subscription-based quarterly survey of over 30 of the world's most prominent commodity forecasters.

The most recent consensus survey available at the time of compiling this report was their July 2010 survey. This publication provided quarterly forecast market prices for steel from September 2009 to December 2011, as well as a long-term forecast pricing position.

[7] http://www.consensuseconomics.com/index.htm

Consensus Economics provides two forecasts for hot rolled coil (HRC) steel; the first being relative to the USA domestic market and the other the European domestic market. We converted these to their AUD price equivalence, and used the average of the two forecasts to understand the general movements in steel prices expected.

The resulting outlook is presented in Table 2-3 below.

Table 2-3 Relative real AUD pricing position of average HRC steel prices

	Jun-09	Jun-10	Jun-11	Jun-12	Jun-13	Jun-14	Jun-15	Jun-16	Jun-17
Avg annual price per tonne of HRC steel	$587	$827	$945	$901	$902	$909	$907	$916	$924
Annual change	-54%	41%	14%	-5%	0%	1%	0%	1%	1%

As Table 2-3 shows, after falling off considerably over the year-to-June 2009 period, market prices for steel have risen significantly in the year to June 2010, and are expected to continue to rise in the next 12 months.

Although overall construction activity within the water and wastewater industry is expected to reduce over the upcoming QCA price monitoring period, due to strong construction-related growth in other sectors of the economy and increasing material costs, this decrease in activity is not likely to reduce the costs of a water utility undertaking capital works projects. Therefore, the continued use of CPI is considered to be conservative.

3.7. Good industry practice for CAPEX and OPEX budgeting

The following outlines what we consider to be good industry practice in CAPEX and OPEX budgeting for regulated utilities. Most utilities use two basic forecasting approaches to develop CAPEX and OPEX budget forecasts for their regulated businesses.

The first approach – "base year" forecast – involves extrapolating historical expenditure for a particular expenditure category. It generally requires justification that the base year expenditure is reasonable and efficient and that any one-off costs that would not be expected to apply in future years are identified and excluded from forecasts.

The second approach –"bottom-up" forecast – is developed by forecasting work units or quantities and standard unit rates. This type of forecast should be supported by explanation and justification of the work units forecast and that the unit rates proposed are reasonable and efficient.

It is not uncommon for a utility to use both of these approaches, with OPEX forecasts primarily driven by a base year extrapolation and CAPEX forecasts by a bottom up approach, on a project-by-project basis.

3.7.1. Capital project budgeting

Capital project spend in a regulated business is often required to be assessed against standard criteria of prudency and efficiency. That is, the following questions have to be answerable in the affirmative for any given project:

- Is the project needed for the regulated industry to deliver the level of service required in the future?
- Is the cost reasonable (within industry norms) for such a project?

An underpinning tenet of an organisation's ability to demonstrate that its capital project expenditure programme is prudent and efficient is a good governance process for capital expenditure approvals.

We believe a good governance process should address and document, preferably within one document, at least the following issues for planned projects:

- Project drivers
- Options to address the drivers
- How the recommended option was selected
- What is the approved project cost and on what basis
- does the solution pass the internal (eg economic, technical, environmental) and external (eg Regulatory) tests
- Risks and how they will be managed
- Critical success factors
- What was approved and how it was approved

For historic projects, the process should address:

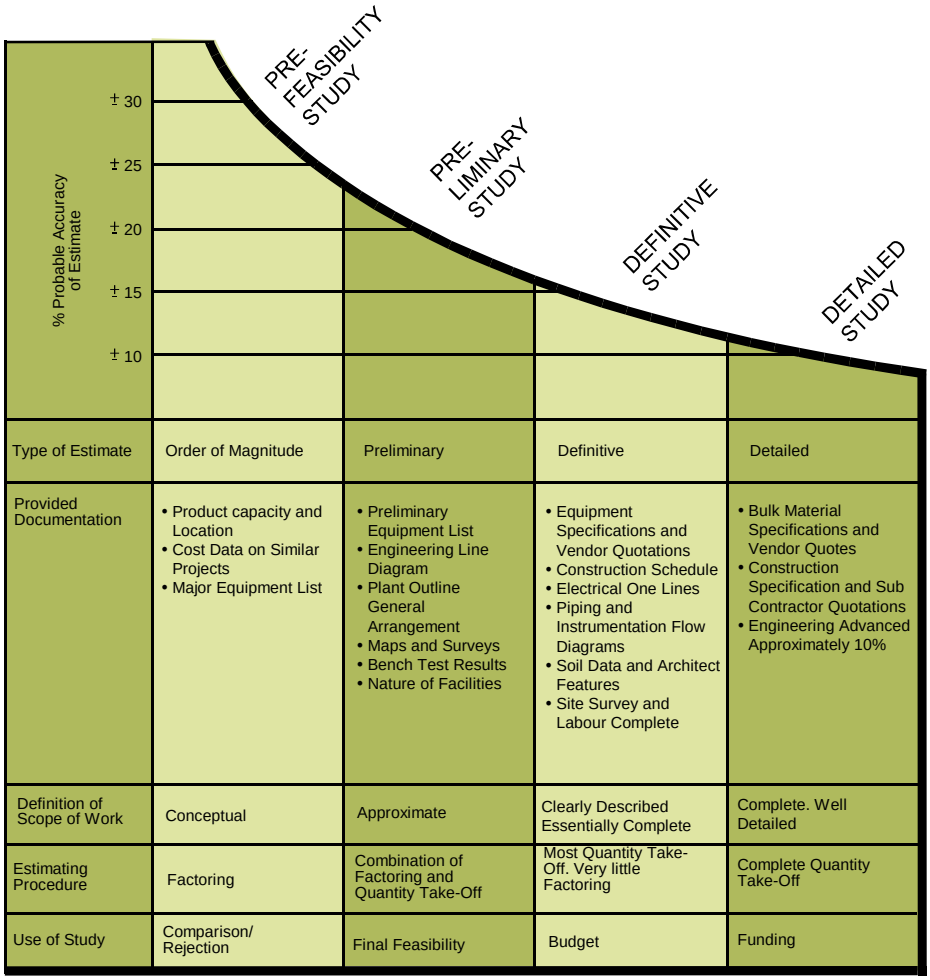
- How the project was implemented
- How the project performed – successes and lessons learned
- How the project addressed the original need
- How the project addressed the critical success factors
- How the as-built cost compared with the original estimate
- If the as-built cost of the project changed the order of merit of the options considered at the options analysis stage

In respect of supporting documentation required to gain approval for capital expenditure for a given capital project, we believe good industry practice should include:

- A phased process, starting with a project outline, through to defined requirements for business cases and final approvals
- A tiered structure, with differentiated requirements and degrees of documentation and review for projects depending on their cost
- Defined approval limits, including variation limits

- Defined reporting requirements for projects and variations
- Fully supported capital expenditure approval documentation incorporating:
  - Project definition, project background/rationale
  - Fully costed and financially evaluated option studies, including a "do nothing" option, preferably on a present value, or, if appropriate, a net present value basis.
  - Description of the project drivers and rationale:
    - Growth in demand
    - Performance standards or environmental improvements
    - Replacement of aging assets
    - Improvement, for example, to reduce future operating costs
- Where capital is constrained, explanation of why a project is proposed over others that may adhere to the above requirements
- Defined cost estimating procedures, including the treatment of contingencies

The level of supporting documentation will be dictated by the project size, project cost and the respective sign-off authority level within an organisation. The chart below illustrates the kind of detail we believe should be presented, and notes that the estimates used for many projects can be expected to have uncertainty of 30% or more.



Type of Estimate	Order of Magnitude	Preliminary	Definitive	Detailed
Provided Documentation	• Product capacity and Location • Cost Data on Similar Projects • Major Equipment List	• Preliminary Equipment List • Engineering Line Diagram • Plant Outline General Arrangement • Maps and Surveys • Bench Test Results • Nature of Facilities	• Equipment Specifications and Vendor Quotations • Construction Schedule • Electrical One Lines • Piping and Instrumentation Flow Diagrams • Soil Data and Architect Features • Site Survey and Labour Complete	• Bulk Material Specifications and Vendor Quotes • Construction Specification and Sub Contractor Quotations • Engineering Advanced Approximately 10%
Definition of Scope of Work	Conceptual	Approximate	Clearly Described Essentially Complete	Complete. Well Detailed
Estimating Procedure	Factoring	Combination of Factoring and Quantity Take-Off	Most Quantity Take-Off. Very little Factoring	Complete Quantity Take-Off
Use of Study	Comparison/ Rejection	Final Feasibility	Budget	Funding

- **Figure 2-6 Typical estimation accuracies and expected documentation**

Apart from compliance with the above process, the level of information in documentation should be reviewed by a variety of stakeholders. For example, documentation of project rationale and justification should be based on the detailed discussion of viable and realistic project alternatives instead of focusing only on a “preferred option”.

In addition, the overall capital expenditure programme should be weighted equally through the respective regulatory periods. This strategy maintains steady and reliable stream of work for construction contractors and reduces the price impacts of the substantial capital works programmes during earlier years of the regulatory period.

3.7.2. Operational expenditure budgeting

In a regulated business it is necessary to demonstrate that a forecast OPEX budget is reasonable and that the spend is necessary to maintain the required level of regulated service delivery, to meet or exceed regulated service delivery standards. Equally as important is the necessity to ensure efficient operation of assets delivering regulated services to enable them to continue to contribute to the regulated services efficiently over their remaining economic or specified life.

A further objective of OPEX budgeting is to achieve ongoing efficiency improvements of operational assets. Therefore, good industry practice for appropriate OPEX budgeting is generally based on the development of sound asset management and maintenance strategies that can improve the reliability and remaining operating life of assets. These strategies are, in turn, based on detailed and accurate asset registers that contain detailed asset information, not least:

- Asset age
- Installation/commissioning dates
- Date and nature of major modifications/upgrades
- Asset condition
- Remaining asset life

The starting point for measuring the efficiency of OPEX budgeting should be the *actual* expenditure in a base year. This should be assessed for efficiency and adjusted, if necessary, to a level considered to be reasonably efficient. Future-year OPEX forecasts are then based on extrapolating these base year costs against appropriate indices, taking into account planned and expected material changes to the asset base in future years and material changes in operation and maintenance practices.

A regulated utility's forecast OPEX over the upcoming regulatory period is an important input to the revenue forecasting process.

Typically, a regulator must review the extent to which the forecast OPEX is consistent with the provision of an annual revenue requirement consistent with the general regulatory principles of the regulated industry in question. These principles are that the allowed annual revenue requirement or maximum allowable return must fairly compensate the regulated utility for the economically efficient costs and risks it incurs in providing regulated services, to encourage:

- A stable and transparent commercial environment which does not discriminate between users
- The same market outcomes as would be achieved if the market for its regulated services was contestable
- Competition in the provision of its regulated services wherever practicable
- The commercial viability of the regulated utility, through the recovery of efficient costs associated with the regulated services, and a reasonable return on the utilities approved capital invested in its regulated assets and business systems.

- Recovery of only those costs related to the provision of the regulated services
- Fairness in the charges made for the regulated services, including the progressive removal of cross-subsidies
- Maintenance of service delivery levels subsisting at the beginning of a regulatory period and an improvement of service delivery levels during the period contemplated by a regulator's final decision.
- Maintenance of the regulated assets such that, at the end of regulatory period, the regulated distribution system is able to continue to provide sustainable electricity distribution service delivery without above-average expenditure on upgrades or critical maintenance and continue the service delivery levels previously achieved.

When assessing the economic efficiency of OPEX, the starting point should be the *actual* expenditure in a base year. This should be assessed for efficiency and adjusted, if necessary, to a level considered to be reasonably efficient. The efficiency review should consider the processes and contractual arrangements used to deliver OPEX expenditure outcomes, and ensure these arrangements do not increase the revenue requirement in an artificial or unnecessary way.

The nature of OPEX means there are elements that are controllable, such as deferring or bringing forward maintenance, or the amount of overtime worked. Moving to outsourcing or contracting some services can lead to apparent changes in OPEX within affected categories, particularly if the contracted services appear against a different OPEX category (for example, moving maintenance to "admin and general" if this is how the contracted services are categorised).

To understand the efficient level of OPEX requires an understanding of these underlying drivers, and the extent to which operational and accounting decisions will affect OPEX in individual years and over a regulatory period being reviewed.

Where OPEX varies from one year to another, a regulator will, by necessity, seek information that explains the underlying causes of these variations to determine the representative level of OPEX for an efficient base year.

This reasonably efficient level of expenditure should then be escalated forward through each year of the regulatory period under review, on the basis of its sensitivity to changes in the key drivers of an expenditure category and recognising material changes in the asset base in future years. For example, the key driver of meter-reading costs is likely to be customer numbers, since meter reading costs will increase as the number of customer accounts increase[8].

In undertaking this analysis, due account should be taken of the sensitivity of expenditure in a particular cost category to its key cost driver. Meter-reading costs, for example, have a high variable cost component and will therefore be very sensitive to customer numbers, whereas customer account supervision costs are largely fixed and will be much less sensitive to customer numbers. Historical expenditure trends in a particular cost category

[8] The number of customer accounts is considered a more relevant driver than the number of active meters since most of a meter reader's time is spent moving from one customer to the next.

may be analysed to help assess the appropriate sensitivity of expenditure to a key cost driver. Similarly, plant operating costs will be split between fixed and volume-related costs.

Equally, customer densities, terrain over which the regulated assets are built, climate and economic conditions (such as strength of an economy and resultant impact on contractor costs), can impact on a regulated industries operational expenditure.

3.7.3. Benchmarking

Benchmarking is a tool widely used by both regulators and utilities to measure the relative efficiency of a business relative to its peers. However, it has a significant limitations in that it is difficult to normalise benchmarks to accurately correct for business-specific differences.

Significant business-specific differences may exist amongst regulated utilities in the same utility space. For example, utility customer base size will impact the ability to achieve economies of scale, or whether the regulated utility is largely servicing a rural or metropolitan customer base.

International benchmarks are also available, but these can be even more problematic to apply than benchmarking against other utilities in the same jurisdiction as the exact nature of the regulated services, and hence, assets, may not be directly comparable. Furthermore, overseas utilities have different labour and plant costs and different construction and quality of supply standards. Ensuring that measurement boundaries are sufficiently similar to enable valid “like with like” comparisons, and normalising for different salaries and benefits, taxes, environment health and safety requirements, etc, can be difficult, and care should be taken whenever benchmarking is used, particularly with international utilities.

Benchmarking may be used as a further test and to provide a high-level indication that both base year and forecast expenditures are reasonably efficient.

Thus, when benchmarking expenditures, it is important to remember that normalising variables are often imperfect, and it is difficult to normalise to a high degree of accuracy. Benchmarking should generally be used as an “indicator” of relative efficiency, and several benchmarks used to gain an understanding of the overall trend. Where a particular regulated utility is consistently high or low on several benchmarking measures, it would point to a likely conclusion of its overall efficiency. Where results are mixed across different benchmarks, conclusions should be drawn with caution.

Considerations to bear in mind when benchmarking include:

- Historical characteristics, designs, size, climate and topography. There will always be valid differences between different utilities operating in the same regulatory space.
- Avoid OPEX / RAB. This will penalise utilities with older assets (greater depreciation, higher OPEX). OPEX / replacement cost is better.
- OPEX / customer will tend to show urban utilities favourably. Shorter linear asset length and number of plant locations per customer.

- A "composite size indicator" using a mix of these variables (linear asset length, service volume, customers) is likely to give better results than a single variable. A composite indicator can be a simple average of these variables, or with weightings to reflect differing cost drivers. May have to normalise each variable to prevent relative magnitudes of large variables swamping other smaller variables.
- Recognising different drivers for different OPEX classes can improve results. For example, field services, maintenance, operations might be best normalised against network size; customer metering and billing costs against customer numbers; retail costs and bad debts against customer numbers or energy sales.
- "Two dimensional" normalisation can give a "cost curve" rather than a single number for comparison.
  - The simplest method would be to group "urban" and "rural" networks. Eg use OPEX/ customer[9] on the "y" axis, and customer density (customers / km of linear asset) on the "x" axis to derive a scatter plot, and draw a line of best fit. Will show relative performance to peers.
  - Network size (service volume ie per ML, replacement cost, customers) can also be used as the "x" axis to give an economy of scale curve, though probably best to separate urban and rural regulated utilities.
- Benchmarking can also be used for CAPEX.
  - Beware CAPEX per RAB or replacement cost. This can just show the demand growth rate.
  - CAPEX / service volume unit of growth (ML) or km of new linear asset is more likely to show meaningful results, but will show urban or rural networks in a favourable light as with OPEX. We consider it best to group similar utilities or use two-dimensional approaches.

Using benchmarking to "set" efficient base year OPEX in particular, should be approached with caution. Mechanisms for normalising variables are never perfect, can penalise regulated utilities for other factors not been taken into account and are very difficult to quantify or adjust for in practice, such as:

- Age of the linear assets
- Differences in wages costs between regions
- Topography, vegetation and climate
- Historical construction practices
- CAPEX – OPEX trade-off (high capital, low OPEX versus low capital , high OPEX – can both be efficient, but reflect different spending priorities)
- Reliability and service levels
- Costs associated with operating in an urban environment (traffic management, congestion, after-hours work on major roads) or rural location (extra travelling distances)

Numerous variations exist, and there is no best normalisation approach. Using several benchmarks to see which utilities are consistently above or below their peers is likely to yield more reliable results than using a single benchmark. This can be used to target "likely" inefficiencies, which can then be investigated in more detail.

[9] Or better still, "composite size indicator"

3.8. Opportunities for synergies and economies of scale

One of the expectations from the water reforms is that the creation of the three new water retail Entities can lead to efficiencies and economies of scale.

While assessing operational costs, we have noted that opportunities for cost savings through synergies, economies of scale or greater purchasing power are not forecast to be realised until after 2013. The focus for the Entities in the interim monitoring period will be on the establishment of the business, the integration of operations, and the development of common systems and processes to move the business forward.

We have identified the following operational cost categories as having little or no opportunity for cost savings through synergies or economies of scale:

- Labour. The workforce framework developed for the water reforms places constraints on how the Entity uses its workforce in the interim price monitoring period, including a "no forced redundancies" principle. These constraints means there is little or no opportunities for efficiencies to be realised until at least 2013/14.
- Bulk water purchases. The purchase of bulk water from the grid manager is the single largest operational cost category for the Entities. The price trajectories for each of the council areas have been set by the Queensland government through to 2017/18, when a common bulk water price will apply across all of south-east Queensland. Hence, this cost is not controllable by the Entities and there are no opportunities for efficiencies.

The following cost categories present the best opportunities for synergies or efficiencies in the interim period:

- Materials and services. This cost category includes the purchase of electricity for operations and the purchase of materials, such as chemicals, oils and lubricants, pipes and fittings for maintenance activities.
    - Electricity – the water reforms have created three large businesses with significant energy requirements. The increased purchasing power puts the Entities in a stronger position when renewing or renegotiating electricity supply agreements.
    - Materials – as with electricity, the formation of the three new Entities increases their purchasing power and market position which can be utilised, for example, through preferred supplier agreements.

In terms of opportunities for cost savings for capital expenditure through synergies and economies of scale, these are unlikely to be realised for at least the next year. These cost savings can only start to be realised once the Entities undertake joint planning of capital projects across their geographic areas.

4. Queensland Urban Utilities

4.1. Introduction to Queensland Urban Utilities

Queensland Urban Utilities is an integrated water and wastewater distribution and retail statutory authority. It has become one of the largest water and wastewater entities in Australia, formed through the merging the water and wastewater businesses of its five shareholding councils: Brisbane, Ipswich, Lockyer Valley, Scenic Rim and Somerset. Queensland Urban Utilities was formed on the 1 July 2010 and services the Brisbane, Scenic Rim, Ipswich, Somerset and Lockyer Valley areas.

Queensland Urban Utilities is responsible for water delivery, wastewater transport and treatment, recycled water treatment and supply, operations and maintenance, new infrastructure, and retail services including billing and customer service.

Queensland Urban Utilities have:

- 115 water reservoirs
- 8,842 km of water supply pipelines
- 8,537 km of wastewater pipes
- 28 water reclamation plants
- Over 1,100 employees
- 1.3 million people to serve

4.1.1. Formation of Queensland Urban Utilities

Several significant changes have occurred within recent history, which has resulted in the current formation of Queensland Urban Utilities. Our assessment of the capital and operational costs is cognisant of these recent developments, and the influence of these on the availability of information and the consistency of policies and procedures within Queensland Urban Utilities.

Council amalgamations

Commencing in 2007, an extensive Local Government Reform process was undertaken. As a result of this process in 2008, several councils were amalgamated and in some cases council boundaries were redefined. The Lockyer Valley Region was created from a merger of the Shire of Gatton and the Shire of Laidley and the Somerset Region was created from a merger of the Shire of Esk and the Shire of Kilcoy. The Scenic Rim Region was previously parts of several local government areas: the Shire of Boonah, the southern rural part of the Shire of Beaudesert, and Harrisville and Peak Crossing from the City of Ipswich.

Water Reform

Following the Water Reform three new council-owned distribution and retail Entities commenced operation. These Entities were formed by amalgamating various council based and owned water utilities into three larger water Entities. These Entities now own the water and wastewater distribution infrastructure and sell water and wastewater disposal services to customers in their respective areas. Queensland Urban Utilities is the Entity for the central area servicing the Brisbane, Scenic Rim, Ipswich, Somerset and Lockyer Valley areas.

4.2. Structure of Report

The remainder of this chapter of the report, detailing the assessment of capital and operating expenditure for Queensland Urban Utilities is structured as follows:

- Section 4.3 – Overview and Detailed assessment of the *prudency* and *efficiency* of Queensland Urban Utilities' capital expenditure for FY11 to FY13 of Queensland Urban Utilities' submission to the Authority
- Section 4.4 – Overview and Detailed assessment of the *reasonableness* of Queensland Urban Utilities' operating expenses for FY11 to FY13
- Section 4.5 – Overall summary of finding from the assessment of capital and operating expenditure

4.3. Capital expenditure

4.3.1. Overview of submission to the Authority

Queensland Urban Utilities has provided information on its capital program within its submission to the Authority in response to the Information Request, including:

- A completed Information Requirement Template
- Supporting documentation, including a written submission, *Price Monitoring Information Return* (Queensland Urban Utilities, 2010) and other documents.

A full list of information presented to the Authority is presented in Appendix A.1.

4.3.1.1. Capital expenditure from 1 July 2008 to 30 June 2010

We have reviewed Queensland Urban Utilities completed Information Requirement Template for Capital Expenditure from 1 July 2008 to 30 June 2010 and supporting documentation. Actual capital costs have been provided from the five council areas that now comprise Queensland Urban Utilities for the 2008/09 financial year and estimated actual costs for the 2009/10 financial year. We note that the 2009/10 year costs have not yet been audited.

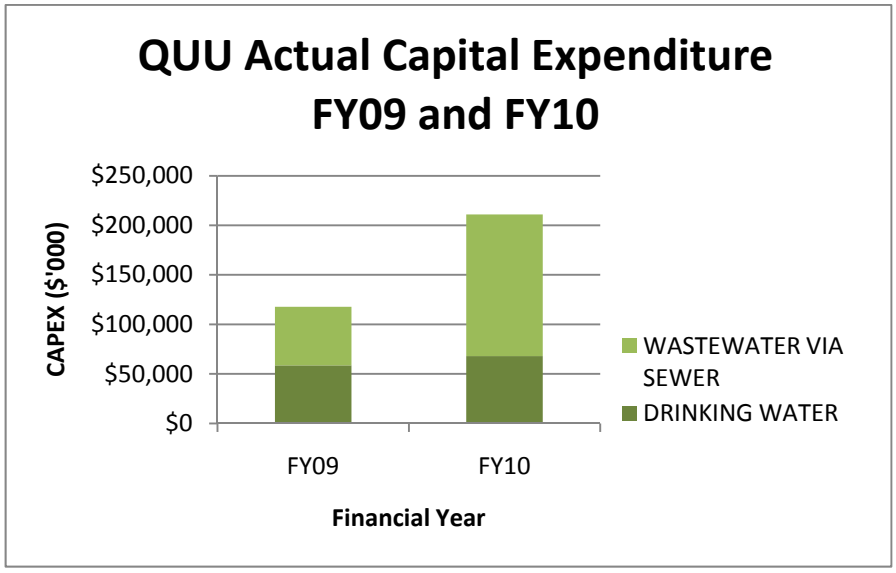
Within Queensland Urban Utilities completed Information Requirement Template, actual and estimates actual costs have been assigned to two categories: 'Drinking Water' and 'Wastewater via Sewer'. Actual costs have not been allocated to the other categories shown below.

- Other core water services

- Aggregate non-core water services
- Trade waste
- Other core wastewater services
- Aggregate non-core wastewater services

We consider it likely that data has not previously been collected within these categories by the councils previously providing the regulated services for the reasons outlined above and as such, Queensland Urban Utilities may not be in a position to populate these categories with data. We recommend that where these services are offered, Queensland Urban Utilities should collect information within the above categories in future years.

The allocation of actual capital expenditure to the 'Drinking Water' and 'Wastewater via Sewer' categories is shown in Figure 3-1.



Source: Queensland Urban Utilities's Information Requirement Template. Note; FY10 costs are not actuals but "estimated" actuals

- **Figure 3-1 Queensland Urban Utilities actual capital expenditure for FY09-FY10 by activity**

Comparison with Council financial accounts

The Authority is required to accept as prudent actual capital expenditure as included in relevant council's financial accounts from 1 July 2008 to 30 June 2010.

Actual capital costs for the 2008/09 and 2009/10 financial years have been compared to the supporting documentation provided by Queensland Urban Utilities.

2008/09 review

There are minor variations in the capital expenditure values presented in supporting documentation and in the Authority templates for the 2008/09 financial year, as presented in Table 3-1.

- **Table 3-1 Queensland Urban Utilities - Comparison of 2008/09 capital expenditure costs with supporting documentation**

Geographic Area	Information Requirement Template capital expenditure Data 2008/09	Supporting Documentation 2008/09	Documentation[10]	Difference
Brisbane	81,403,200	81,549,000	Eco BCC FAR Jun08 V2.xls	-145,800
Ipswich	33,301,400	33,191,000	Eco ICC FAR Jun08 V2.xls	110,400
Lockyer Valley	1,629,700	1,614,000	Eco LVRC FAR Mar08 V2.xls	15,700
Scenic Rim	1,043,300	1,032,000	Eco SRRC FAR Jun09 v5.xls	11,300
Somerset	342,300	334,000	Eco SRC FAR Jun09.xls	8,300

We have asked Queensland Urban Utilities to clarify the reasons for these variations. Based on discussions with Queensland Urban Utilities, it is understood that the variations are due to minor allocations of costs between the geographic areas. We note that the net discrepancy of -$100 is not material.

2009/10 review

As shown in Table 3-2, there are large differences in the capital expenditure values presented in supporting documentation and in the Information Requirement Template for the 2009/10 financial year. These differences are caused by the inclusion of the Establishment Costs within the Authority template. Establishment costs are discussed further in the following section.

- **Table 3-2 Queensland Urban Utilities - Comparison of 2009/10 capital expenditure costs with supporting documentation**

Geographic Area	QCA Template capital expenditure Data **2009/10**	Supporting Documentation **2009/10**	Documentation	Difference
Brisbane	157,387,100	120,766,000	Eco BCC FAR Jun08 V2.xls	36,621,100
Ipswich	44,196,800	39,363,000	Eco ICC FAR Jun08 V2.xls	4,833,800
Lockyer Valley	3,569,200	2,900,000	Eco LVRC FAR Mar08 V2.xls	669,200

[10] Queensland Urban Utilities has indicated that these are confidential documents.

Geographic Area	QCA Template capital expenditure Data **2009/10**	Supporting Documentation **2009/10**	Documentation	Difference
Scenic Rim	3,541,200	3,026,000	Eco SRRC FAR Jun09 v5.xls	515,200
Somerset	2,322,800	1,961,325	Eco SRC FAR Jun09.xls	361,475

The total of these Establishment Costs is $43 million, as shown in Table 3-3.

- **Table 3-3 Queensland Urban Utilities – Establishment costs**

Geographic Area	Establishment Costs	**QCA Template capital expenditure Data - Establishment Costs**	Supporting Documentation **2009/10**	Variation
Brisbane	36,800,100	120,587,000	120,766,000	179,000
Ipswich	4,697,400	39,499,400	39,363,000	-4,697
Lockyer Valley	650,500	2,918,700	2,900,000	-650
Scenic Rim	500,700	3,040,500	3,026,000	-500
Somerset	351,300	1,971,500	1,961,325	-350

The supporting documentation substantially confirms the 2009/10 financial year capital expenditure provided to the Authority, with the exception of the Brisbane district. We understand that this variation is due to the allocation of Brisbane capital expenditure on corporate and billing systems across the other districts as these systems would be used for all districts in Queensland Urban Utilities.

It is recommended that the declared capital spends are reviewed again once the audited council financial accounts are available.

Establishment costs

The Authority is required to accept as prudent all allowable establishment costs as advised by the Minister for Natural Resources, Mines and Energy and Minister for Trade.

Establishment costs are defined by the SEQ Interim Price Monitoring Guideline for Templates for 2010/11 as:

> *"the costs involved in establishing the Entities. Criteria for these costs will be advised by the Queensland Water Commission".*

It is understood that a report is due to be produced by Ernst and Young for the Queensland Water Commission regarding allowable establishment costs. At the time of writing this report, only initial information is available

regarding these costs. A letter from the Queensland Water Commission to the Authority dated 12 August 2010 states that:

> *"At this time no recommendation has been made to the Minister for his approval".*

In absence of advice from the Queensland Water Commission on this matter we are not able to identify any establishment costs that are not approved. We note that the establishment costs outlined within the Authority templates equate to $43 million, whereas Table 1 from the Queensland Water Commission letter suggests that Queensland Urban Utilities' establishment costs budget claim is $33.5 million.

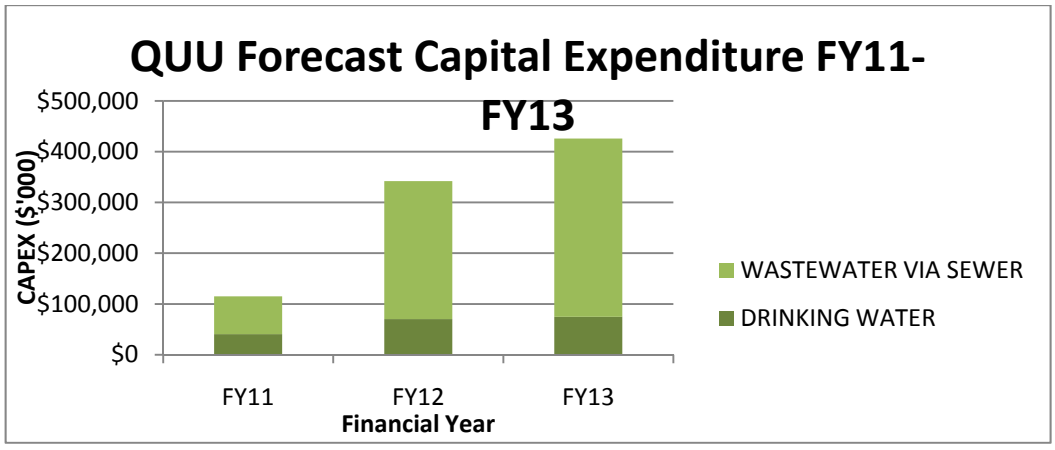
We understand from Queensland Urban Utilities that $43 million for establishment costs was used as the best estimate at the time of the production of the budget. Following this in August 2010 the final audit of the establishment costs was conducted by Ernst and Young where $34.8 million was claimed, this does not however include the Distribution Entity set-up costs of which Queensland Urban Utilities share is $11.5 million. At present, the Queensland Water Commission is in the process of reviewing Ernst and Young's recommendations regarding complying costs.

We recommend that the allowable establishment costs are reviewed following the provision of information from the Queensland Water Commission.

4.3.1.2. Capital expenditure from 1 July 2010 to July 2013

The Ministerial Direction also requires the Authority to review the prudency and efficiency of capital expenditure for inclusion in the RAB from 1 July 2010.

In its submission Queensland Urban Utilities proposed a capital works program of which approximately $883 million was to be commissioned over the interim price monitoring period (from 1 July 2010 to July 2013). Of this $883 million, water accounts for $186 million and wastewater accounts for $697 million, as shown in Figure 3-2. From FY11 onwards the values reported in the capital program are commissioned capital as per the Authority's requirements. The following references to capital expenditure refer to capitalised assets as per the Authority's guidance, with the exception of individual project values, as these do refer to capital expenditure.



Source: Queensland Urban Utilities' Information Requirements Template. Note: capital expenditure refers to capitalised assets.

- **Figure 3-2 Queensland Urban Utilities forecast capital expenditure for FY11-FY13 by activity**

The figures for each financial year are presented in Table 3-4.

- **Table 3-4 Forecast capital expenditure by activity ($000s)**

Activity	2010/11	2011/12	2012/13	Total
Water	40,589	70,209	74,763	185,562
Wastewater	74,296	271,756	351,273	697,324
Total	114,922	342,006	426,083	883,011

Source: Queensland Urban Utilities' Information Requirements Template. Note: capital expenditure refers to capitalised assets.

To comply with the Authority's Required Information Template, Queensland Urban Utilities assigned the increase in capital works to the following cost drivers: growth, renewal, improvement and compliance.

In respect of review of Capital Expenditure as being prudent and efficient, We understand from the *SEQ Interim Price Monitoring Information requirements for 2010/11* (QCA, July 2010), that appropriate cost drivers, and associated capital expenditure, are as described below:

- Growth – Capital expenditure associated with increasing the capacity of assets or construction of new assets, to meet growth in demand, or to provide additional security of supply should be included in growth.
- Renewal of existing infrastructure – Capital expenditure associated with replacing assets and generally maintaining service levels should be included in renewal of existing infrastructure.
- Improvements – Capital expenditure associated with improving service levels and reliability to meet customer preferences should be included in improvements.
- Compliance – Capital expenditure associated with meeting price monitoring or legislative obligations should be included in compliance.

Of the $883 million for the interim price monitoring period (from 1 July 2010 to July 2013) $553 million is for capital expenditure associated with growth, $257 million associated with renewal of existing infrastructure, $44 million with improvements and $27 million with compliance, as shown in Table 3-5.

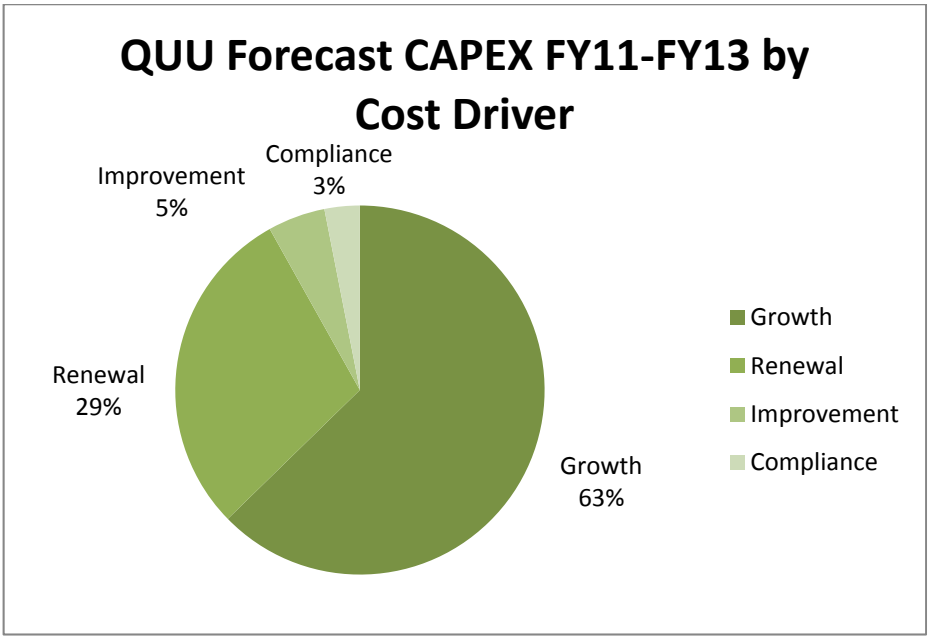
- **Table 3-5 Forecast capital expenditure by cost driver ($000s)**

Cost Driver	2010/11	2011/12	2012/13	Total
Growth	21,009	229,991	302,646	553,646
Renewal	71,770	87,718	98,095	257,583

Cost Driver	2010/11	2011/12	2012/13	Total
Improvement	13,844	18,803	11,804	44,450
Compliance	8,300	5,495	13,538	27,333
Total	114,922	342,006	426,083	883,011

Source: Queensland Urban Utilities' Information Requirements Template Note; FY10 costs are not actuals but "estimated" actual

We present a breakdown of the capital expenditure per driver (growth, renewal, improvement, compliance) graphically in Figure 3-3. The largest cost driver is growth, followed by renewals. Improvements and compliance represents less than 10% of the capital expenditure for the price monitoring period.



Source: Queensland Urban Utilities' Information Requirements Template. Note: capital expenditure refers to capitalised assets.

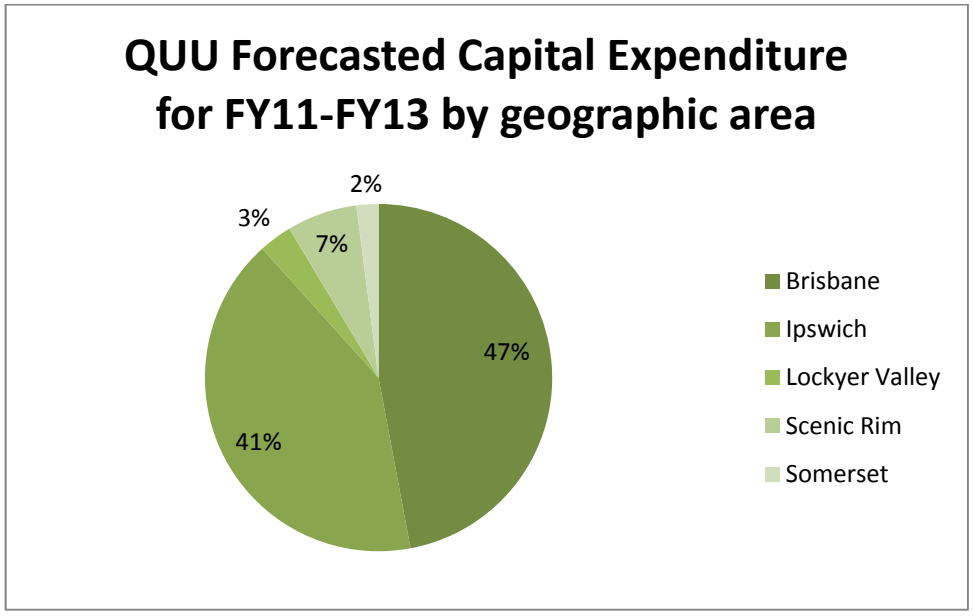
- **Figure 3-3 Queensland Urban Utilities forecast capital expenditure for FY11-FY13 by project driver**

The split of the capital expenditure between the five geographic areas is show in Table 3-6 below and represented graphically in Figure 3-4. Brisbane and Ipswich have the largest proportions of the capital expenditure, with the remaining three geographical areas comprising less than 10% of the total capital expenditure for the price monitoring period. It is worth noting that the relative asset bases of these service areas are less than 3%

- **Table 3-6: Forecast capital expenditure by geographic area ($000s)**

Project Driver	2010/11	2011/12	2012/13	Total
Brisbane	$80,719	$112,546	$222,271	$415,536
Ipswich	$26,209	$191,612	$146,558	$364,378
Lockyer Valley	$1,214	$22,132	$3,983	$27,329
Scenic Rim	$5,537	$12,971	$39,196	$57,704
Somerset	$1,242	$2,746	$14,076	$18,064
Total	$114,885	$114,885	$114,885	$883,011

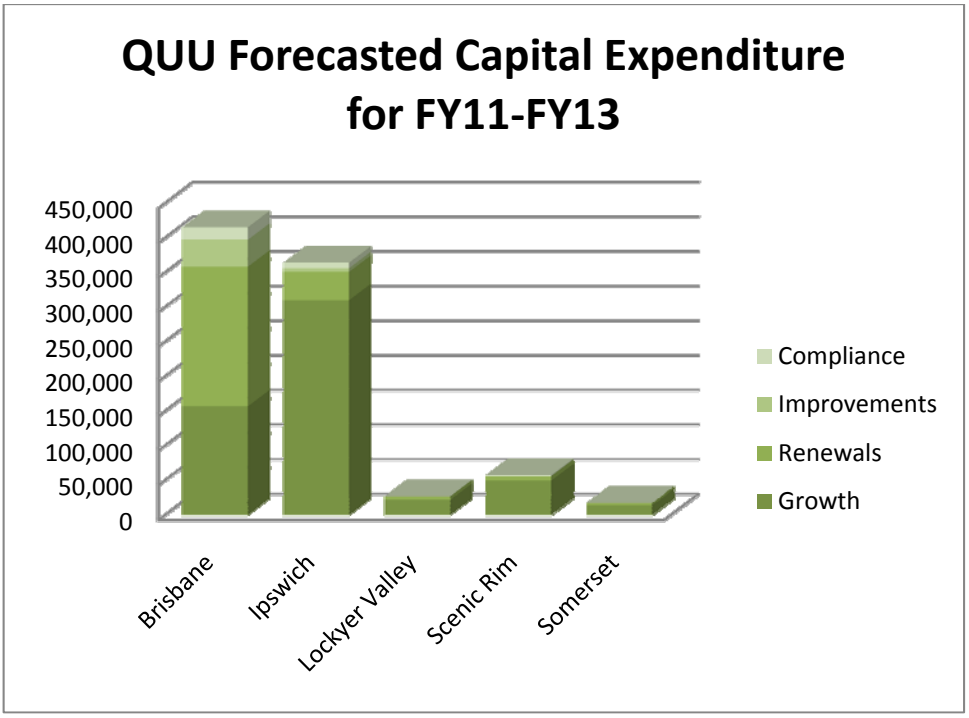
Source: Queensland Urban Utilities' Information Requirements Template. Note: capital expenditure refers to capitalised assets.



Source: Queensland Urban Utilities' Information Requirements Template. Note: capital expenditure refers to capitalised assets.

- **Figure 3-4 Queensland Urban Utilities budgeted capital expenditure for FY11-FY13 by geographic area**

The above information is summarised in Figure 3-5, showing the split of these capital costs between the five geographic areas for each of the cost drivers.



Source: Queensland Urban Utilities' Information Requirements Template. Note: capital expenditure refers to capitalised assets.

- **Figure 3-5 Combined capital expenditure value (FY11, FY12 and FY13) – Spend by geographic area and cost driver**

In its submission, Queensland Urban Utilities noted that the majority of the works across the region will be in relation to wastewater transport and treatment assets across the region. Table 3-7 lists some of these major capital expenditure projects.

- **Table 3-7 Major capital expenditure projects ($000s)**

Project	Project Type	Project Cost 2010/11	Total Project Cost[11]
Ipswich Goodna STP Upgrade - Stage 4a	Wastewater Treatment	55,893	128,229
Ipswich Bundamba STP Upgrade	Wastewater Treatment	653	106,522
Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street	Wastewater Transport	13,000	50,650
Brisbane - Woolloongabba Sewer Catchment Augmentation Parts A & B	Wastewater Transport	9,000	45,205
Brisbane Burst Mains Renewal Program	Water Projects	6,800	26,500

[11] These are non-indexed costs.

Project	Project Type	Project Cost 2010/11	Total Project Cost[11]
Lockyer Valley Eastern Regional STP Upgrade	Wastewater Treatment	3,000	17,800
Somerset Fernvale STP Implementation	Wastewater Treatment	5,000	17,000
Scenic Rim - Bromelton STP	Wastewater Treatment	-	15,967
Brisbane Leakage and Pressure Management Program	Water Projects	3,748	13,748
Somerset Lowood Rising Main to Fernvale Stage 1	Wastewater Transport	-	9,000
Ipswich Distribution Water Main Minor Enhance Program	Water Projects	114	6,717
Ipswich Water Retic Mains Renewal Program	Water Projects	1,645	5,332
Scenic Rim Canungra STP Upgrade	Wastewater Treatment	3,750	4,750
Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn	Water Projects	-	2,544
Scenic Rim - Helen Street WTP to Proposed Reservoir Site	Water Projects	-	2,517
Lockyer Valley Wastewater Retic Mains Renewal Program	Wastewater Transport	250	2,050
Lockyer Valley Water Retic Mains Improvement Program	Water Projects	100	1,900
Somerset Water Retic Mains Renewal Program	Water Projects	300	1,241
Lockyer Valley Water Retic Mains Renewal Program	Water Projects	160	1,080
Somerset Distribution Water Minor Enhance Program	Water Projects	-	210

4.3.2. Detailed Queensland Urban Utilities forecast capital expenditure review

The following section discusses the assessment of the proposed capital expenditure for Queensland Urban Utilities over the price monitoring period of 2010/11 to 2012/13. This section includes:

- An assessment of the adequacy of capital expenditure information provision, including:
  - the inclusion of expenditure on non commissioned assets
  - processes for cost disaggregation
  - indexation
- A description of the representative sample selection for capital expenditure projects
- A description of the method used to assess capital expenditure projects
- Commentary on business processes for capital project option study, including:
  - service standards
  - capital expenditure planning and prioritisation
  - comparison with good industry practice

- use of policies and procedures within representative sample selection
- recommendations for future policies and procedures

- The outcomes of the capital expenditure projects assessments

4.3.3. Adequacy of capital expenditure information provision

A review was undertaken of Queensland Urban Utilities' submission to the Authority and the completed Information Requirement Template return. The key points to note are as follows.

Supporting documentation

Queensland Urban Utilities provided us with a project list which we found to be a highly useful and comprehensive tool which links each project to the activity (water, wastewater,) geographical area, project drivers, asset class and timing of expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories.

This Commissioning Model together with Project Summaries for each project/program forms a robust and comprehensive description of the project scope and project drives. In addition, the Project Summaries identify deliverables within the next financial year and links each project with its respective project justification documentation.

Required information template

Within Queensland Urban Utilities' completed Information Requirement Template, capital expenditure is allocated to "Drinking Water" and "Wastewater via Sewer" categories. This is in line with Table 3 of Queensland Urban Utilities' *Price Monitoring Information Return* (Queensland Urban Utilities, 2010).

- **Table 3-8 Current use of service categories**

Activity	Service	Revenue	Assets
Water	Drinking water - Potable water supplies to all customer classes.	Yes	Yes
	Other core water - Queensland Urban Utilities has no other core water services.	N/A	
	Aggregate non-core water - Sundry services, such as water connections, water meter testing, special meter reads and water efficiency management plan assessment.	Yes	
Wastewater	Wastewater via sewer - Domestic strength wastewater from residential and non-residential customers and trade waste and recycled water where they are not currently separable.	Yes	Yes
	Trade waste - Trade waste where currently separable from wastewater via sewer.	Yes	
	Other core wastewater - Recycled water where currently separable from wastewater via sewer.	Yes	

Activity	Service	Revenue	Assets
	Aggregate non-core wastewater - Sundry services, such as discharge of septic tanks, sewer connections and garbage grinders.	Yes	
	Non-regulated - consultancy, connection design and private plumbing works.	Yes	Not material

Source: Table 3 of Queensland Urban Utilities' Price Monitoring Information Return

As noted in Table 3-8, within Queensland Urban Utilities' return, costs associated with recycled water are included within the "Wastewater via Sewer" category. The Authority may wish to recommend that these costs are separated out as Queensland Urban Utilities has a substantial recycled water network and there may be an alternative pricing strategy for the provision of recycled water in the future. However, it may be difficult to separate recycled water and wastewater assets where there is not a direct supply of recycled water to a customer; for example, recycled water customers may draw supply from a release main from the wastewater treatment plant.

The following tables summarise the analysis of the "Drinking Water" and "Wastewater via Sewer" categories within the completed Information Requirement Template. The left hand column shows the sub categories used within the "Drinking Water" and "Wastewater via Sewer" categories. Coloured cells highlight areas where no data is provided. The colour coding of these cells is explained below.

- **Table 3-9 Completion of data templates**

	Costs For 2010/11 to 2012/13 ($000s)				
DRINKING WATER	Brisbane	Ipswich	Lockyer	Scenic Rim	Somerset
Reservoirs	7,484	5,069	0	7,570	0
Pump stations	486	3,552	0	139	0
Treatment	0	0	0	0	0
Associated telemetry and control systems	2,140	392	0	139	0
Meters	12,514	4,891	308	150	0
Billing systems	0	0	0	0	0
Corporate systems	15,374	2,295	375	260	175
Sundry Property, Plant and Equipments	1,305	177	781	609	612
Land	0	2,153	0	1,236	0
Buildings other than infrastructure housing	0	0	0	0	0
Distribution infrastructure not listed above	74,260	28,080	3,111	8,432	1,494
Support services	0	0	0	0	0
Establishment Costs	0	0	0	0	0

	Costs For 2010/11 to 2012/13 ($000s)				
DRINKING WATER	Brisbane	Ipswich	Lockyer	Scenic Rim	Somerset
Other 2 [please specify]	0	0	0	0	0
Unallocated cash contribution	0	0	0	0	0

	Costs For 2010/11 to 2012/13 ($000s)				
WASTEWATER VIA SEWER	Brisbane	Ipswich	Lockyer	Scenic Rim	Somerset
Reservoirs	0	0	0	0	0
Pump stations	18,718	27,107	1,963	2,111	596
Treatment	60,384	252,434	16,008	24,247	142
Associated telemetry and control systems	3,240	0	0	0	0
Meters	0	0	0	0	0
Billing systems	0	0	0	0	0
Corporate systems	14,931	1,573	161	153	114
Sundry Property, Plant and Equipments	1,163	280	243	496	415
Land	0	3,321	0	3,549	0
Buildings other than infrastructure housing	929	0	0	0	0
Distribution infrastructure not listed above	202,483	33,053	4,380	8,615	14,516
Support services	0	0	0	0	0
Establishment Costs	0	0	0	0	0
Other 2 [please specify]	0	0	0	0	0
Unallocated cash contribution	0	0	0	0	0

The cells that are colour coded green in Table 3-9 are expected not to be populated. For example there are expected to be no reservoir costs are associated with wastewater, no treatment costs associated with water (as Queensland Urban Utilities are not responsible for water treatment) and no establishment costs in 2010/11 onwards. In addition, the SEQ Interim Price Monitoring, Guideline for Templates for 2010/11 (Version 1.0, May 2010) states that:

> *"there should be no direct capital expenditure assigned to the "Unallocated cash contributions" asset class".*

The cells that are colour coded yellow in Table 3-9 indicate that data has not been disaggregated or that no projects are associated with this sub category. For example we have not sited any drinking water reservoir projects within Lockyer or Somerset, so there is no capital expenditure within this sub category.

We understand that there are no costs associated with billing, as Queensland Urban Utilities has a billing system that transferred from Brisbane and there is no forecast capital expenditure required to replace this in the 3 year forecast period.

For further detail on the information provided by Queensland Urban Utilities in the information return please refer to Appendix A.1.

Expenditure vs. Commissioning

The SEQ Interim Price Monitoring Framework Final Report states that:

> *"work in progress should be capitalised at the rate of return and included as capital expenditure once it is fully completed and able to contribute productive capacity to the system".*

Queensland Urban Utilities confirmed in a meeting with SKM on the 14th September that assets are added to the RAB when commissioned.

Queensland Urban Utilities' Commissioning Model undertakes several steps to calculate the capital costs of capital works projects:

- The "Forecast Capital Expenditure" is calculated based on the list of capital projects and programs. These costs are calculated in FY 10/11 dollars.
- The "Forecast Capital Expenditure $nominal" is calculated based on a 2.5% indexation rate.
- Capital projects are allocated to one of four categories. The majority of projects are either classed as "Single year / annual commissioning" or "capital expenditure on projects to be capitalised at end of project". A minor number of projects are classed as "Expensed portion of project" or "Projects on hold".
- For projects which are to be capitalised at the end of the project, further calculation is carried out to determine the work in progress (WIP) movements. It is assumed that the portion of capital expenditure spent in first six months of the year is 50%.
- The expensed portion of the project is never capitalised, it represents items part of the asset creation program but under accounting rules will not be capitalised. It is expensed in the year of expenditure, similar to maintenance expenditure.

The nominal rate for annual capitalisation is shown in Table 3-10 below.

Table 3-10 Nominal rate for annual capitalisation

	2010/11	2011/12	2012/13
Nominal rate for annual capitalisation	9.20%	10.25%	10.25%

We understand that the nominal rate used for the annual capitalisations is the weighted average cost of capital (WACC) submitted to the Authority in Queensland Urban Utilities' Information Requirement Template, worksheet 5.10.0.

We have attempted to reconcile the Queensland Urban Utilities' Commissioning Model and Queensland Urban Utilities' completed Information Requirement Template. We have sought clarification and conclude that the Queensland Urban Utilities' Commissioning Model and Queensland Urban Utilities' completed Information Requirement Template are capable of being reconciled, as shown in Table 3-11 below.

- **Table 3-11 Comparison Queensland Urban Utilities' completed information requirement template and commissioning model**

	2010/11	2011/12	2012/13
capital expenditure that is capitalised in the year of expenditure (Row 4)	$169,465	$199,574	$229,692
Donated assets (Row 327)	$54,543	$90,510	$98,260
Work in progress (Row 12)	$0	-$232,942	-$294,651
Total (calculated from Commissioning Model)	**$114,922**	**$342,006**	**$426,083**
Information Requirement Template Total	**$114,922**	**$342,006**	**$426,083**

Indexation

Queensland Urban Utilities' has used an indexation rate based on the forecast for CPI of 2.5%. Queensland Urban Utilities states that:

> *"the CPI is an acceptable surrogate for the construction index in the short term because of the lack of a publically available forecast for a construction index, the time constraints in engaging a consultant to provide a construction indexation forecast and a reduction in the Producer Price Index following the global financial crisis".*

We recognise that CPI may not reflect the expected actual construction cost increases for each year. The use of CPI as a proxy for a construction index and the use of other indices are further discussed in Section 2.6.

4.3.4. Summary of data adequacy

In summary Queensland Urban Utilities has provided a submission which complies with the Authority's guidelines. The Information Required Template was completed for the key activities (water and wastewater) and no costs are forecasted for billing and support services.

In undertaking this assessment we noted a small number of non-material errors within the Information Required Template regarding the allocation of costs to sub categories.

A project list was provided (Commissioning Model.xls). This is a highly useful and comprehensive tool which links each project to the activity (water, wastewater) geographical area, project drivers, asset class and timing of

expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories.

Recommendations for data adequacy

The use of Queensland Urban Utilities' Commissioning Model allows for a highly disaggregated system of cost recording and continued use of this model (or similar versions of this model) is recommended.

It is recommended that the capital expenditure allocated to sub categories within the Information Required Template is reviewed, and if required, updated.

4.3.5. Capital project sample selection

We were tasked to review the prudency and efficiency of a representative sample of Queensland Urban Utilities' capital expenditure projects.

A sample of 15 projects was selected and agreed with the Authority for the detailed review of prudency and efficiency. Ten of these projects were selected based on the highest cost water and wastewater projects for each geographic area. In addition a median value project was selected from each geographic area to allow greater representation of the lower value projects, which are less likely to have been reviewed in detail in the past. This median value project was selected by taking a project with a value close to the median value for each geographic area with capital expenditure within the 2010/11 financial year.

Several the projects within this sample have not been reviewed by us as there is a perceived conflict of interest given our prior or current involvement with these projects. It is understood that these projects have been reviewed by a third party and hence the analysis of these projects is not reported here.

The list of capital expenditure programs reviewed in detail for 2010/11 is shown in Table 3-12.

Table 3-12 Capital expenditure project/programs reviewed by SKM

Project ID	Project Description	Activity	Cost ($000s)	
			FY2010/11	Total 2010/11-2012/13[12]
WWP147	Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street	Wastewater Transport	13,000	50,650
RW4	Brisbane Burst Mains Renewal Program	Water Projects	6,800	26,500
I_DW125	Ipswich Distribution Water Main Minor Enhance Program	Water Projects	114	6,717
R_DW7	Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn	Water Projects	-	2,544

[12] These are the non-indexed costs

Project ID	Project Description	Activity	Cost ($000s)	
			FY2010/11	Total 2010/11-2012/13[12]
WWP104	Brisbane Lang Parade Wet Weather Pump Station	Wastewater Transport	-	2,000
L_DW2	Lockyer Valley Water Retic Mains Improvement Program	Water Projects	100	1,900
S_DW51	Somerset Water Retic Mains Renewal Program	Water Projects	300	1,241
L_DW1	Lockyer Valley Water Retic Mains Renewal Program	Water Projects	160	1,080
I_WWP9	Ipswich Sewerage Rising Mains Renewal Program	Wastewater Transport	578	928
S_WWP49	Somerset Wastewater Retic Mains Renewal Program	Wastewater Transport	290	810
R_DW38	Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation	Water Projects	200	200

- **Table 3-13 Capital expenditure project/programs reviewed by an alternative consultant**

Project ID	Project Description	Activity	Cost ($000s)	
			FY2010/11	Total 2010/11-2012/13
SNW00018A	Ipswich Goodna STP Upgrade - Stage 4a	Wastewater Treatment	55,893	128,229
L_WWT2	Lockyer Valley Eastern Regional STP Upgrade	Wastewater Treatment	3,000	17,800
R_WWT20	Scenic Rim - Bromelton STP	Wastewater Treatment	-	15,967
S_WWT1	Somerset Fernvale STP Implementation	Wastewater Treatment	5,000	17,000

Together, these projects account for 27% of the capital expenditure Costs for FY11 to FY13. Table 3-14 details the percentage of Capital Costs represented by the sample for each geographic area and activity.

- **Table 3-14 Queensland Urban Utilities sample as a percentage of total capital costs**

Geographic Area	Wastewater activity	Water activity	Total
Brisbane	17%	22%	18%
Ipswich	33%	13%	30%
Lockyer Valley	88%	58%	83%
Scenic Rim	43%	17%	35%
Somerset	55%	86%	57%
Total	30%	20%	27%

- **Table 3-15 Queensland Urban Utilities sample as several projects by geographic area and activity**

Geographic Area	Wastewater activity	Water activity	Total
Brisbane	2	1	3
Ipswich	2	1	3
Lockyer Valley	1	2	3
Scenic Rim	1	2	3
Somerset	2	1	3
Total	8	7	15

The above sample captures in excess of the top ten per cent of capital expenditure by value in each activity and geographic area over the forecast period. The sample captures 75 per cent of all capital expenditure in 2010/11 and 27 per cent of all capital expenditure in the forecast period from FY11 to FY13.

Our assessment methodology is discussed in the following section.

4.3.6. Capital project assessment method

The capital expenditure project assessment was carried out in three stages:

- Stage 1 – Identification and Collation of Information
- Stage 2 – Adequacy of Information
- Stage 3 Assessment of Prudency and Efficiency
- These stages are describes as below.

Stage 1 – Identification and collation of information

Following the selection of a representative sample of projects, Stage 1 involved the identification of information required for the review. A Request for Information (RFI) was issued for each project indicating the type of information required. An example of an RFI is shown below.

Table 3-16 Example of RFIs for Queensland Urban Utilities projects

Project Name	Project ID	RFI No.	Overall Cost 2010-13 ($000s)	Information Request
Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street	WWP147	RFI 15	50,650	▪ Previous reports and studies, eg planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. ▪ Details of any units rates used for costings. ▪ Current scope of works for proposed upgrade. ▪ Proposed asset capacity, eg design horizon, any future staging plans. ▪ Proposed infrastructure sizing and lengths and associated infrastructure such as valve pits and manholes and any sewer specific amenities. ▪ Proposed type of construction and details of any changes to existing infrastructure.
Brisbane Burst Mains Renewal Program	RW4	RFI 16	26,500	▪ Previous reports and studies, eg planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. ▪ Details of any units rates used for costings. ▪ Documents detailing current programs in place ie project drivers, project selection/prioritisation, current mitigation measures and management controls. ▪ Description of proposed works including locations, required mains (lengths and sizes) and associated infrastructure ▪ Detail timeframes for proposed works.

Stage 2 – Adequacy of information

For each project the adequacy of information was assessed against the Authority's requirements. In line with the Authority's *Final Report on SEQ Interim Price Monitoring Framework*, we have considered the adequacy of information provided on the following items for assessing the prudency and efficiency of the proposed capital expenditure.

- Scope and costs
- Cost driver (growth, renewal, improvements, compliance)
- Standards of service

To facilitate a common approach to analysis of capital works projects we developed a template to record the project information received and to assess the information for adequacy using the above categories. Where the information received did not meet the requirement for assessment, further RFIs were issued to gain this information.

During this process, we engaged with Queensland Urban Utilities to discuss the list of projects under review and to review Queensland Urban Utilities' general policies and procedures for identifying and prioritising capital expenditure projects. These are discussed further in Section 3.3.7.

The collection of data must be considered within the overall context of the Water Reform process. At the start of this activity, Queensland Urban Utilities had only been established for two months and many staff members are still in the process of adjusting to new roles, policies and procedures, and in some cases, even new locations. Much of the data required for review was produced by one of the five of the previous councils, adding an additional layer of complexity. In addition to the above factors, it is also recognised that due to the tight timeframes of the project, Queensland Urban Utilities was provided with limited timeframes to provide information.

Stage 3 - Assessment of prudency and efficiency

For each project, an assessment of the prudency and efficiency of the project was assessed against the Authority's requirements. Expenditure is prudent if:

- It is required as a result of a legal obligation
- It is required as a result of new growth (as approved by the Authority)
- It is a renewal of existing infrastructure
- It achieves an increase in the reliability or the quality of supply that is explicitly endorsed or desired by customers, external agencies or participating councils.

Expenditure is efficient (cost-effective), if:

- The scope of the works (which reflects the general characteristics of the capital item) is the best means of achieving the desired outcomes after having regard to the options available, including the substitution possibilities between capital expenditure and operational expenditure and non-network alternatives such as demand management.
- The standard of the works conforms to technical, design and construction requirements in legislation, industry and other standards, codes and manuals. Compatibility with existing and adjacent infrastructure is relevant as is consideration of modern engineering equivalents and technologies.
- The cost of the defined scope and standard of works is consistent with conditions prevailing in the markets for engineering, equipment supply and construction.

In addition to the above criteria, the Authority instructed us to assess the deliverability and timing of the capital expenditure program, having regard to the capital expenditure historically delivered by participating councils and the policies and procedures for capital expenditure going forward.

The cost efficiency of the projects was measure through comparison against published unit rates from Rawlinsons, available unit rates from SEQ water Entities and also other water utilities and previous project experience on similar projects. Unit rates identified or calculated from the supporting data were compared to a range of rates from the

above sources. If the rate was within (±30%) of the range identified for a similar type, length and diameter or pipe, or similar type of project, it was considered to be cost efficient.

To facilitate the review process and ensure consistency of review against different projects and across the different Entities, we developed a template against which to assess the project for prudency and efficiency using the above definitions. We have provided completed templates for all projects are contained within Appendix A.2.

Conclusion

We have developed a three step method for reviewing the capital projects, which consists of identification and collation of information, assessing the adequacy of information and assessing the prudency and efficiency of the project. Each project was assessed against the Authority's definitions of prudency and efficiency, including the scope of work, standards of work and the costs.

We discuss our review of Queensland Urban Utilities' policies and procedures for developing its capital budget in the following sections

4.3.7. Commentary on business processes for capital projects

Initially a high level review of Queensland Urban Utilities' general policies and procedures was undertaken. Based on this review, we assessed whether these policies and procedures represent good industry practice and identified whether there was evidence of these policies and procedures being utilised within the representative sample of projects under review.

4.3.8. Overview of policies and procedures

Within its submission, Queensland Urban Utilities has provided information on its service standards, capital planning and capital prioritisation. These processes are discussed further below.

Service standards

Queensland Urban Utilities generally has two types of standards:

- Customer service standards - including details of the services provided and the water, wastewater and recycled water service areas, details of response and repair completion times, and other objectives.
- Desired Standards of Service (DSS) provide standards that can impact on scale and timing of the capital program, including average day demands, demand distribution, peaking factors, pressure parameters, fire fighting parameters, reservoir storage, pump and pipeline design and water, wastewater, trade waste, biosolids, release and recycled water quality.

At present, Queensland Urban Utilities operates under the customer service standards prepared by its five shareholding councils to comply with the *Water Supply (Safety and Reliability) Act 2008*. This is expected to continue until the Minister, under the S*outh East Queensland Water (Distribution and Retail Restructuring) Act 2009,* releases a water and wastewater customer code to provide for minimum and guaranteed service standards for the customers of the three distributor-retailers. This is expected to occur by 30 June 2011.

Within its *Price Monitoring Information Return* (Queensland Urban Utilities, 2010) to the Authority, Queensland Urban Utilities states that:

> *"there is considerable variation in customer service standards across the state, across south-east Queensland, and across Queensland Urban Utilities' operational area. This reflects wide variations in historical investment and geography. Queensland Urban Utilities has committed to ensuring that its customer service standards continue at a level equal to or better than those existing prior to its formation."*

Queensland Urban Utilities has provided its *Customer Service Charter.* This addresses customer service standards including complaints and dispute resolution, customer consultation, accounting, metering or billing.

In its submission to the Authority, Queensland Urban Utilities states that:

> *"ensuring all of Queensland Urban Utilities' customers receive at least the minimum agreed and regulated service standards is a key element of decision making on future operating, maintenance and capital expenditure.*
>
> *Compliance to these standards is monitored through Queensland Urban Utilities' Integrated Management System Framework. This framework sets out the governance arrangements for the development, maintenance and application of management systems across the business and supports the delivery of water and wastewater services to our customers. Queensland Urban Utilities will review and report its achievements against its targets annually".*

In addition to its' customer service standards, Queensland Urban Utilities also has asset standards, as outlined in *Queensland Urban Utilities' Water & Sewerage Planning Guidelines* (2010). This document outlines the water network and wastewater network planning parameters for Queensland Urban Utilities Brisbane.

This document identifies Desired Standards of Service (DSS) for parameters such as pressure, fire flows, peaking demands and storage requirements. From discussions with Queensland Urban Utilities on the 14th September 2010, we understand that these DSS are likely to be consistent for Brisbane and Ipswich projects, not for other areas.

We have inquired whether similar documents are available for other geographic areas. Queensland Urban Utilities responded as follows:

> *"Queensland Urban Utilities (QUU) is currently reviewing its technical asset standards to standardise our planning and design functions. As part of this project, the planning teams throughout the five districts have agreed and adopted QUU's Water and Sewerage Planning Guidelines (v.3) as being the default guidelines. Further work is underway to revise the current Brisbane based planning guidelines to reflect QUU's entire service area".*

We believe that the above is a good approach to develop consistent standards, which will result in a robust and consistent planning across all of the districts.

It is understood that a regional design code is under consideration, potentially based on WSAA standards, which would require the existing DSS to be reviewed.

Capital planning

Within its *Price Monitoring Information Return* (Queensland Urban Utilities, 2010), Queensland Urban Utilities has highlighted its capital planning methodology. The water and wastewater teams of individual councils which have formed Queensland Urban Utilities have created several documents to meet their statutory requirements, including a Strategic Asset Management Plan (SAMP), System Leakage Management Plan (SLMP), Drinking Water Quality Management Plan (DWQMP) and Customer Service Standards as required by the *Water Supply (Safety and Reliability) Act 2008*. Under transitional arrangements, the *South East Queensland Water (Distribution and Retail Restructuring) Act 2009* transfers SAMPs and SLMPs developed by its five shareholding councils to Queensland Urban Utilities, until such time as the new business develops an endorsed *Water Netserv Plan*. The *Water Netserv Plan* must have regard to planning documents included in the *South East Queensland Regional Plan 2009-2031* and the planning assumptions made by shareholding councils for Queensland Urban Utilities' operating area. Queensland Urban Utilities states that it "*is working to finalise its Water Netserv Plan at the earliest opportunity*."

We believe that the development of a *NetServ Plan* provides a good opportunity for Queensland Urban Utilities to develop a consistent and structured approach to planning for all districts, and the completion of this plan is recommended.

We believe that the development of a *NetServ Plan* provides a good opportunity for Queensland Urban Utilities to develop a consistent and structured approach to planning for all districts, and the completion of this plan is recommended.

Capital prioritisation

To identify and prioritise capital projects, Queensland Urban Utilities undertakes a systematic process as follows:

- System planning - the overall high-level strategy across the region for delivering integrated water services. Opportunities for improvements in the system configuration are identified and assessed (eg inter-catchment transfers to better balance treatment plant loads and capacities and defer plant upgrades, alterations to water supply service zones, integrated water management opportunities such as re-use schemes etc).
- Master Planning - Supply area/catchment-based master planning undertaken at the individual supply area/catchment scale in alignment with the broad system planning strategy adopted. This master planning identifies the have for, timing and costs of new infrastructure required to provide adequate system capacity to maintain service standards under projected growth in demands.
- Feasibility studies look at elements of infrastructure identified in the master plans as being required within the next three years. Feasibility studies are the first step in ensuring capital expenditure meets the requirement of efficiency. Studies are undertaken to examine the options available in detail to determine the best solution for addressing the identified issue. This includes alternative solutions that may enable deferment

of capital expenditure (eg non-asset solutions). The Multi-Criteria Options Evaluation (MCOE) technique is used to ensure a triple bottom line approach is used in determining the recommended solutions. The detailed planning provides high definition of infrastructure requirements and accurate cost estimates.

- Preliminary design of the preferred option is undertaken as an integral part of the feasibility report. This means that project designers have input into the feasibility process to ensure that the preferred option is constructed and that any issues that may affect delivery such as survey, environmental studies, land issues, traffic issues are addressed.
- 30-year capital investment plan – based on the above planning this 30 year plan details the proposed investment in infrastructure on a year-by-year basis. The program includes infrastructure items identified in the master plans, as well as items identified through the asset evaluation and renewal activities and operational issues that require asset solutions. This list is prioritised and timings are adjusted to achieve a more balanced expenditure profile. Adjustment and rationalisation of the 30-year investment profile is conducted on a regular basis to ensure that it remains an accurate current reflection of required future capital investment.
- 5- year plan - A five-year 'slice' of the 30-year capital investment plan is taken forward for detailed budget deliberations on an annual basis. This is as shown in the Commissioning Model.
- Project Summaries are prepared for the Capital Investment Program for the next financial year for each geographic area.

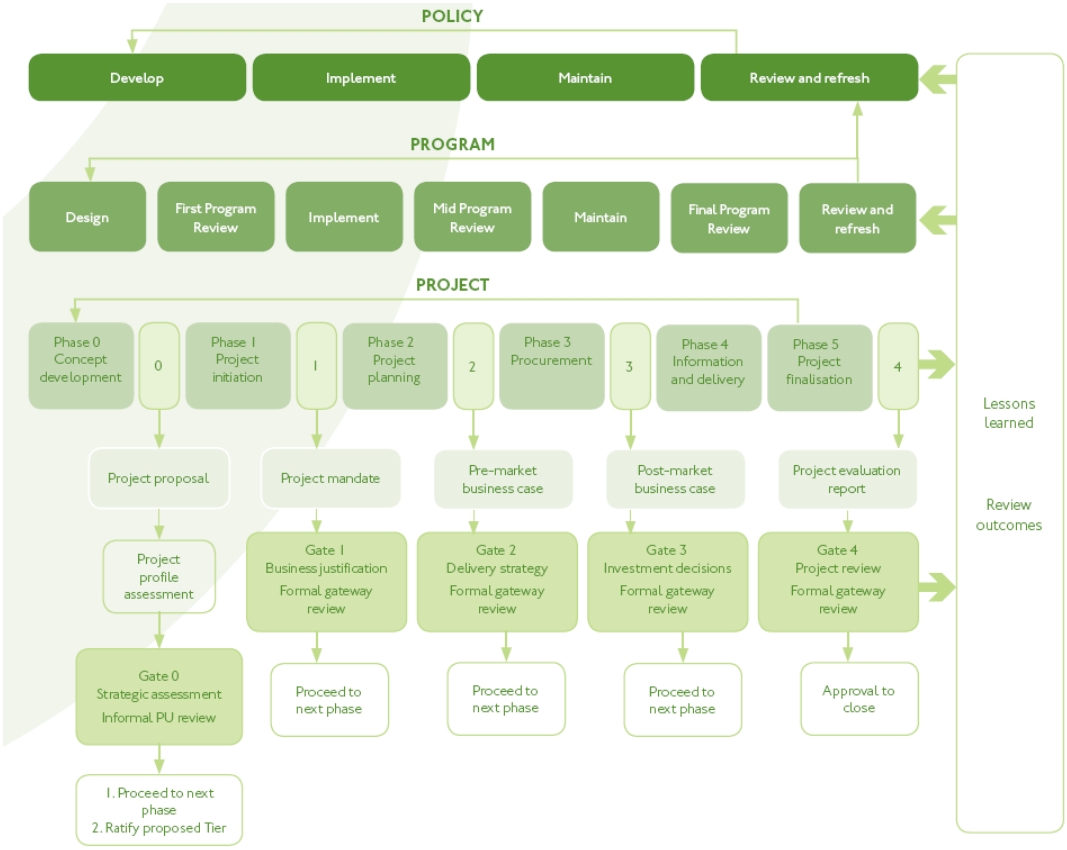
Based on discussions with Queensland Urban Utilities, it is understood that the above process is in place for projects initiated within the Brisbane and Ipswich areas. However we understand that this may not be the case for other geographic areas. Evidence of whether this process is currently being used was reviewed on a project by project basis and is reported in Section 3.3.8.2.

Queensland Urban Utilities has indicated that work has taken place to review rolling programs created by the individual councils. For example, for Somerset Wastewater Mains rolling program, the identified mains were inspected first using CCTV. This system helps to ensure that there is a robust framework and robust system in place.

To create the 2010/11 capital expenditure program, each council budget was individually prioritised. These budgets were then combined with some further optimisation to create the 2010/11 Program. The above process is to be used for each council area going forwards. The 2011/12 Program is currently under review and will be considered by the board.

For projects with costs greater than $5 million, a gateway review approach is taken. This approach intends to provide independent support to large projects by having peers examine them at critical stages in their lifecycle. Goodna STP is a good example of a project which has undergone this process.

For projects with less than $5 million spend, a Procurement Board is in place to examine projects in the procurement phases both pre and post submission to the market and to govern any variation requirements.



Source: Figure 5, Price Monitoring Information Return, Queensland Urban Utilities, 2010

- **Figure 3-6 Queensland Urban Utilities' gateway review process**

Cost estimates

Queensland Urban Utilities has indicated the following accuracies for cost estimates:

- Master Planning - planning estimates constructed through the use of agreed unit rates.
- Feasibility studies - various options are costed for competitive processes. An estimate accuracy of +35% to -25% is typical.
- Preliminary design - once a solution is identified a more accurate estimate is prepared, typically by a quantity surveyor based on the preliminary design of the recommended option. Estimate accuracy is typically considered to be +25% to -15% at this stage.

These cost estimate accuracies are in line with industry standards, and in line with the recommendations of the *Review of Owner's Project Cost and Contingency Allowances* (Evans and Peck, November 2009).

4.3.8.1. Comparison with good industry practice

Following a high level review of Queensland Urban Utilities' general policies and procedures, we have assessed whether these policies and procedures represent good industry practice.

We believe that good industry practice for water utilities includes:

- The use of defined project stages which are common to all projects
- The production of adequate processes and documentation for each project stage, including documented requirements, reporting, documents and approvals within a project management and delivery framework.
- The consideration of cost drivers to determine whether a project is adequately justified and therefore prudent
- The consideration of viable alternative options. Use of options assessments should consider the 'do nothing' base case. Within the context of a water utility, the 'do nothing' should be used as the base case to describe the impact and consequences of no action. The options described in the feasibility study should therefore focus on the likely engineering alternatives, to provide initial guidance on the likely solution for the further investigations.
- The use of a multiple criteria assessment to ensure a triple bottom line approach for determining the recommended solutions. The use of a standardised process for conducting this assessment will facilitate justification and prioritisation of a specific project over another.
- The documentation of the project/program selection and prioritisation, through close-out reports and approvals gateways at each project stage.
- The use of master planning of its water and wastewater system, including trunk infrastructure planning, preliminary infrastructure sizing, modelling and forward costing.
- The establishment of long term, coordinated, and structured development sequencing to meet the requirements for population growth planning which considers the efficient delivery of all infrastructure to service population growth.
- The use of a defined asset management system based on condition assessments and/ or risk profiles to identify renewals projects
- The consideration of relevant legislation and state wide planning directions
- The use of unit costs developed from actual project data or from comparative data
- The standardisation of cost estimation procedures, including either standardised percentages for contingencies or a risk-based cost estimation system.

We consider a good governance process should address and document at least the following issues:

- What are the drivers that triggered the project?
- What are the options which are likely to address the drivers?
- How was the recommended option selected?
- What is the approved project cost and on what basis?

- Does the solution pass the internal (eg economic, technical, environmental) and external (eg Regulatory) tests
- What are the risks and how are they to be managed?
- What are the critical success factors for the project?
- What was approved and how was it approved?
- How was the project implemented?
- How did the project perform – what went well and what can be learned from the performance?
- Did the project address the critical success factors?
- How did the as-built cost compare with the original estimate upon which approval was sought?
- Would the as-built cost of the project, have changed the order of merit of the options considered at the options analysis stage?

Also essential to good industry practice is the establishment of robust water demand forecasts. These total water demand forecasts are based on the following key inputs:

- Population data, which is typically based on Census data, State Government and Local Government employment and growth projections.
- Per Capita water demands, which is typically based on historical water consumption, and predicted future per capita demands accounting for some water conservation.

These projections are the cornerstone of all long term infrastructure planning. The long term demands are then translated into the annual, monthly and average daily water demands and wastewater loadings for the community, and the storage and distribution system capacity to meet the community's water demands. Demand forecasting is currently being addresses by a separate consultant, Frontier Economics, who will produce a separate report on this issue.

Based on our review of Queensland Urban Utilities' processes and procedure, we conclude that they are in accordance with good industry practice. Queensland Urban Utilities has identified a vigorous planning methodology, including options assessment and triple bottom line assessments to ensure sustainable outcomes. Queensland Urban Utilities has initiated a gateway review process for large capital projects, which should ensure that the project undergoes adequate peer review prior to implementation.

In summary, we consider that the Queensland Urban Utilities' process outlined in Section 3.3.8 substantially complies with the above good industry practice process. Section 3.3.8.4 provides recommendations for future processes.

4.3.8.2. Use of policy and procedures within case studies

We have sought evidence of the process documents, approvals and reports for the projects selected within the representative sample.

We note that documentation is good for large single projects (eg master plans, feasibility studies business cases, etc); however it is less comprehensive for rolling programs. We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

Within the limited review timeframe, the shortcomings we have identified are not in compliance with the process per se, but rather in the level of information and documentation prepared, and the ability for parties independent of the planning process (such as the Authority) to adequately assess a project based on the documentation provided. Examples of this are the Ipswich Distribution Water Main Minor Enhance Program, Lockyer Valley Water Retic Mains Improvement Program, Lockyer Valley Water Retic Mains Renewal Program, Somerset Wastewater Reticulation Mains Renewal Program and Somerset Water Reticulation Mains Renewal Program.

The key deficiencies for rolling programs are that the:

- Documentation of project scope is limited for future years. This may be due to the program not yet being fully developed, however without the information provided, We found difficulty in comparing project estimates with benchmark prices.
- Documentation of project have and justification is limited
- Documentation of alternatives considered, and reasons for selecting recommended option, is limited.
- Cost estimate basis and accuracy is generally not discussed. Queensland Urban Utilities' supporting documentation describes some requirements for the cost estimating process as shown below. It is recommended that consistent estimate accuracies are applied across all projects.
- Project justification reports (where available) have inadequate financial analysis, in particular the comparison of the cost of options. However, we note that the comparison of cost options is usually included as part of consultant's feasibility studies supporting the internal decision making documentation.

4.3.8.3. Polices and processes summary

Currently Queensland Urban Utilities has several varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand work is underway to create a consolidated version of these standards.

In respect of the Brisbane and Ipswich districts, Queensland Urban Utilities has well defined policies and procedures which are in agreement with good industry practice. We understand that this may not yet be the case for other districts; however we understand work is underway to review these policies and procedures.

From the documents reviewed for the representative sample, we conclude that documentation is good for the large single projects (eg master plans, feasibility studies business cases, etc); however, documentation is less

comprehensive for rolling programs (such as meter replacements). We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

4.3.8.4. Recommendations for future processes

Queensland Urban Utilities commissioned a report to review documentation relating to major wastewater projects that are planned to be implemented by Queensland Urban Utilities. The *Queensland Urban Utilities Major Project Review* (BECA, April 2010) recommended several general recommendations for improving the Queensland Urban Utilities' capital program. These included:

- A standardised approach to cost estimating, including a standardised approach to estimates for items such as contingency, preliminary and general items, design fees and contractor margins, so that there is uniformity of cost estimating across all proposed major projects. Implementation of a probabilistic or risk based cost estimating approach could be considered.
- A summary document be prepared for identified major projects so as to develop a standardised reporting
- An implementation strategy be developed for each major project, and that this includes recommendations on:
  - Delivery methodology (detailed design followed by separate construction, D&C, ECI etc)
  - Program
  - Further investigations including the scope and timing of these
  - Implementation of a risk review process
- Establish a benchmark for determining the prudency of a project based on design flows and the projected growth as per the SEQ Regional Plan and the SEQ water strategy
- A 'toll gate' or 'gateway' review process is implemented so that appropriate reviews are undertaken at milestone stages for selected projects.

From our review of representative project samples, we agree with the above recommendations. We understand that the last recommendation is currently being progressed, as shown above for, capital expenditure projects over $5 million. It is recommended that the processes are developed further to show how Queensland Urban Utilities' master plans and feasibility studies integrate with this gateway review process. In addition, it is recommended that that a simplified version is created for projects of a lower value.

In addition, we recommend that Queensland Urban Utilities develops a process for considering and synergies between the districts are considered, and where possible these synergies are developed. For example, combined programs of work or optimised infrastructure between the five districts. We recommend that, where relevant, master planning studies, feasibilities studies and network models take into consideration opportunities and risks in neighbouring areas, to allow the development of an integrated and optimised network.

In addition, it should be noted that the commissioning of the *Queensland Urban Utilities Major Project Review* (BECA, April 2010) is an example of the efforts that Queensland Urban Utilities has undertaken to create a prudent and efficient capital program.

4.3.9. Capital project assessments

A summary of the projects reviewed by us is provided in Table 3-17 . Full project reviews are contained within Appendix A.3.

We have assigned the projects into one of four categories:

- Information provided demonstrated project to be prudent and efficient
- Information provided demonstrated project to be not prudent and/or efficient
- Insufficient information provided to demonstrate project is prudent and efficient
- Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development and is consistent with historic costs.

These categories are used within Table 3-17.

We recommend that projects where insufficient information is provided to demonstrate prudency and efficiency, but that the level of information is consistent with the stage of development, that the project should remain within the forecast capital expenditure but be reviewed during future evaluations. If removed from the budget, this is likely to cause disruption to the provision of service delivery in the future. The inclusion of these costs provides the Entities with the opportunity to undertake the appropriate preliminary works and produce sufficient supporting documentation. Where projects are either demonstrated by the information provided to be not prudent and/or efficient, or where no information was provided to support the project, these costs should be removed from capital expenditure forecasts.

All projects and programs should be considered in the overall context of the Water Reform. The majority of these projects will have been initiated within previous council organisations, using the policies and procedures and standard of service developed under these councils.

The majority of the capital expenditure for the 2010/11 financial year is prudent and efficient.

The only projects which are identified as not prudent and efficient are the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn, due to commence in 2011/12 and the Lang Parade Wet Weather Pump Station, due to commence in 2012/13. It is recommended that these projects are removed from the capital works budget, until further information is available.

- **Table 3-17 Summary of representative sample review**

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost		Recommended Revised Budget Cost	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street	Information provided demonstrated project to be prudent and efficient		Yes	Yes	$13,000,000	$51,864,000	$13,000 (no change)	$51,864 (no change)
Brisbane Burst Mains Renewal Program	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development.	Yes	Yes, with considerations	$6,800,000	$27,249,000	$6,800,000 (no change)	Requires further review
Brisbane Lang Parade Wet Weather Pump Station	N/A	Information provided demonstrated project to be not prudent and/or efficient.	Partially	Unable to determine	-	$2,000,000	-	Requires further review
Ipswich Distribution Water Main Minor Enhance Program	Information provided demonstrated majority of projects to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Partially	Yes, with considerations	$114,000	$6,970,000	$74,000 (-$40,000)	Requires further review
Ipswich Sewerage Rising Mains Renewal Program	Information provided demonstrated project to be prudent and efficient		Yes	Yes	$578,000	$941,800	$578,000 (no change)	$941,800 (no change)

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost		Recommended Revised Budget Cost	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Lockyer Valley Water Retic Mains Improvement Program	Information provided demonstrated program to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years.	Yes	Yes, with considerations	$100,000	$1,989,000	$100,000 (no change)	Requires further review
Lockyer Valley Water Retic Mains Renewal Program	Information provided demonstrated program to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Yes	Yes, with considerations	$160,000	$1,122,000	$160,000 (no change)	Requires further review
Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn	Information provided demonstrated project to be not prudent and/or efficient		Not Required	Not Required	$0	$2,607,000	$0	$0 (remove from budget)
Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation	Information provided demonstrated project to be prudent and efficient	N/A	Yes	Yes	$200,000	$200,000	$200,000 (no change)	$200,000 (no change)
Somerset Wastewater Retic Mains Renewal Program	Information provided demonstrated program to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Partially	Yes, with considerations	$290,000	$833,000	$290,000 (no change)	Requires further review

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost		Recommended Revised Budget Cost	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Somerset Water Retic Mains Renewal Program	Information provided demonstrated program to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Partially	Yes, with considerations	$300,00	$1,276,000	$300,000 (no change)	Requires further review

4.3.9.1. Capital projects considered efficient and prudent

The following projects are considered to be prudent and efficient for all financial years:

- Bulimba Creek Trunk Sewer Upgrade Stage 1
- Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation
- Ipswich Sewerage Rising Mains Renewal Program Project

For several programs listed below, whilst the 2010/11 financial years are considered to be prudent and efficient, insufficient information was provided for the works in the 2012 and 2013 financial years to assess whether they are prudent and efficient.

- Brisbane Burst Mains Renewal Program
- Ipswich Distribution Water Main Minor Enhance Program
- Lockyer Valley Water Retic Mains Improvement Program
- Lockyer Valley Water Retic Mains Renewal Program
- Somerset Wastewater Reticulation Mains Renewal Program
- Somerset Water Reticulation Mains Renewal Program

Queensland Urban Utilities has accepted that for some rolling programs the exact quantum of required investment in 11/12 onwards is still in the process of being refined. Queensland Urban Utilities has requested that the funding for these three programs be retained to allow the continuation of the alignment and optimisation process currently underway. As Queensland Urban Utilities goes through the 2011/12 budget process, we understand that detailed planning will be done to justify the proposed levels of investment within the rolling programs and that level of funding will be sought. We recommend that the costs for 11/12 onwards should be subject to further review prior to approval.

These projects are summarised below with comments on the prudency and efficiency of the project. Full project reviews are included in Appendix A.3.

Bulimba Creek Trunk Sewer Upgrade Stage 1

- The capital expenditure is proposed to be $52million over the 2010/11-2012/13 financial years.
- The scope of the Bulimba Creek Trunk Sewer Upgrade Stage 1 upgrade includes the installation of a tunnelled gravity augmentation sewer, which will consist of 4,500m of DN800mm (1983m), DN1000mm (1043m), and DN1200mm (1494m) vitrified clay pipe, running approximately parallel to the existing trunk sewer. The construction method will be predominantly micro-tunnelling with trenched branch and cross connections.
- Wet weather flows in the Bulimba Creek Trunk Sewer currently exceed Queensland Urban Utilities's adopted design standards for flow containment in the sewerage network system. Under current hydraulic loads, both recorded and predicted overflows are occurring during wet weather from the Bulimba Creek Trunk Sewer between Padstow Road and Coora Street (Stage 1), at levels that could compromise Queensland Urban

Utilities's regulatory EPA obligations. This could also result in consequential impacts on creek contamination, public health, access restrictions and potential community discontent.

- In addition, there is a forecast 40% growth in population for this catchment through to the ultimate planning horizon. The proposed Rochedale development, included in the growth forecast, will only add to the current loadings and exacerbate an already overloaded sewerage transportation system.
- There were several documents provided as part of the submission that imply that this project was well considered, including a strategic study, a feasibility study and a business case report. In addition, this project is covered by an independent review and a procurement strategy was identified.
- Works of this form (tunnelling) have site specific issues which can significantly affect the cost. The initiators of this project, Brisbane Water, have utilised a milestone review process (gateway review) which include cost estimates at relevant milestones. Brisbane Water has completed other comparable tunnelling projects (Woolloongabba area) which would provide good cost references. In addition the provision of Review Reports by consultants (BECA) provides independent assessment of the costs. Based on the information provided the capital expenditure for this program of works is prudent and efficient.

Brisbane Burst Mains Renewal Program

- The capital expenditure is proposed to be $27 million over the 2010/11-2012/13 financial years.
- The Brisbane Burst Mains Renewal Program involves the replacement of water mains with unacceptably high consequence and probability of failure and considering future major urban re-development. It focuses on assets that are in poor condition, unable to be maintained and/or are under performing. These are assets approaching the end of their lives, but also include assets that show sign of early failure. The purpose is management of deficient service provision ie repeated leaks or bursts and to minimise consequence of failure.
- Inclusion in the program is based on estimated annual cost of repairs versus the annualised cost of replacement. Water reticulation mains requiring replacement are prioritised based on failure history and consequence of failure.
- The rehabilitation estimates are between ± 30% of the benchmarks identified by us. We understand that the works are to take place under roads within zone 1, which indicates that they are likely to be higher than some benchmarks.
- Based on the information provided, we understand that the increase in capital funding for 2011/2012 and 2012/13 is based upon the findings detailed in the *Water Reticulation Main Asset Management Plan* (Queensland Urban Utilities, March 2007). This forecast of capital investment is the result of the renewals model developed by Hayden & Reynolds utilising the Commonwealth Scientific and Industrial Research Organisation (CSIRO) failure curves (Pipeline Asset and Risk Management System (PARMS) Planning Software). The CSIRO failure curves are developed utilising historical failure data cross-referencing the trends against the age and environment of the asset cohorts. We understand that Queensland Urban Utilities is continuing the refinement of the PARMS model and is partaking in the WSAA Project to further develop the software across the industry in partnership with CSIRO.
- We understand that Queensland Urban Utilities undertakes an annual review and optimisation under taken to ensure the program consists of priority works.

- We recommend that the capital expenditure on this project is prudent. The level of information provided support the efficiency of the 2010/11
- There is insufficient information provided to demonstrate prudency and efficiency of future years, but level of information provided is consistent with the stage of development. It is recommended that the expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Ipswich Distribution Water Main Minor Enhance Program

- The capital expenditure is proposed to be $7 million over the 2010/11 -2012/13 financial years.
- This program includes some small water main enhancements and several larger projects in the Ipswich region. Most of the projects entail the replacement/upgrade of plant and water mains to augment the water distribution system, and to improve the security of water supply and fire flows.
- The capital expenditure for the financial year 2010/11 for this program of works is considered to be prudent and efficient, with the exception of WNI00266– Goodna Water Zone main and WNI00037 Altitude Valve Installation at Barallon Reservoir. Reviews of these items have concluded that they are not required and should be removed from the budget. The value of the 2010/11 program should be reduced by $40,000.We understand that the much higher forecast expenditure in FY 2011/12 onwards is based on several larger projects.
- Based on information provided by Queensland Urban Utilities, we understand that two large projects associated with the new Chuwar reservoir (associated water main works totalling $3.16 million) and the new Walloon reservoir (associated water main $0.71 million) are recommended to be delivered as separate projects in future, and should be removed from the program.
- We understand that the Springfield Elevated HLZ Tower West (WNI00251) project will be deferred as part of the current budget process as development in this part of the Springfield catchment and does not require the construction of this infrastructure at this point in time. The value of the 2011/12 program should be reduced by $384,000.
- Limited information is available regarding the projects which form the 2011/12 and 2012/13 program. However, we understand that the projects which form the program will be the subject of either a detailed Feasibility Study or Minor Capital Project Submission in the coming years.
- The future program requires further review. Based on information provided, the WNI00251 Springfield Elevated HLZ Tower West and the WNI00288 - Goodna Water Zone Projects should not be included in the future program. In addition, if the projects associated with the new Chuwar and Walloon reservoirs are to be delivered as separate projects, these should be removed from the program.

Ipswich Sewerage Rising Mains Renewal Program Project

- The capital expenditure is proposed to be $1 million over the 2010/11-2012/13 financial years.
- Ipswich City's sewerage network is currently serviced by 62 sewerage pump stations. The reliability of the rising mains associated with these pump stations is crucial to the performance of the overall system, particularly in minimising the risk of sewerage overflows, which may occur if a rising main fails.

- A preliminary investigation of 56 rising mains undertaken during 2006 identified 14 high-risk pipelines requiring detailed assessment. An investigation was undertaken to determine the extent of corrosion issues associated with these 14 pipelines. The investigation has identified four rising mains requiring rehabilitation.
- In addition, a detailed condition survey of all rising main air release valves has commenced to identify air valves requiring rehabilitation. A program was established over the next two years to rehabilitate air valves. Highest priority was given to valves on the largest capacity mains and these present the highest risk and also offer the greatest potential gains from maintaining system performance and efficiency.
- Based on the information provided, we have calculated unit rates for this project. These calculated unit rates are between ± 30% of the benchmarks identified by SKM.
- Estimated expenditure for the three financial years under review is considered to be reasonable and is considered to be prudent.

Lockyer Valley Water Retic Mains Improvement Program

- The capital expenditure is proposed to be $2 million over the 2010/11 -2012/13 financial years.
- The Lockyer Valley Water Retic Mains Improvement Program comprises the upgrade of 620m of DN100 water mains in William St and a link main in Spencer / Crescent Sts, Gatton.
- This project is prudent with respect to demonstrated have based on the information provided.
- The unit rates provided are between ± 30% of the benchmarks identified by SKM.
- Financial year 2010/11 capital expenditure is considered to be prudent and efficient.
- Queensland Urban Utilities have stated that he 2011/12 and 2012/13 programs have not yet been developed. Formulation of these programs will occur later this financial year, prior to the 2011/12 budget process. Due to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works.
- Consequently expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Lockyer Valley Water Retic Mains Renewal Program

- The capital expenditure is proposed to be $1.1million over the 2010/11 -2012/13 financial years.
- The project comprises the replacement of 5 water mains in the townships of Gatton and Laidley. The water mains are all 100mm in diameter with a total length of 936m.
- The unit rates provided are between ± 30% of the benchmarks identified by SKM.
- Financial year 2010/11 CAPEX is considered to be prudent and efficient.
- However, due to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works. Consequently expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation

- The capital expenditure is proposed to be $0.2 million in the 2010/11 financial year.
- The Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation project comprises the construction of a new 250kL reservoir at Brookes Drive, Kooralbyn to replace the existing 20kL reservoir. The project includes

construction of new inlet and outlet pipework, relocation of the existing telemetry equipment and water booster.

- This project is considered to be prudent with respect to appropriate processes based on the information provided. The project is considered to be efficient based on recent quotes obtained from suppliers.

Somerset Wastewater Reticulation Mains Renewal Program

- The capital expenditure is proposed to be $0.8 million over the 2010/11-2012/13 financial years.
- The purpose of this project is the management of deficient service provision ie the reticulation sewer servicing the subject property is fully or partially blocked. It focuses on assets that are in poor condition and/or are under performing. These are assets approaching the end of their lives, but also include assets that show sign of early failure, such as through excessive tree root intrusion.
- Based on the information provided, we have calculated unit rates for this project. These calculated unit rates are between ± 30% of the benchmarks identified by SKM.
- Based on the information provided, this capital expenditure is prudent and efficient for the 2010/11.
- Based on the above, the capital expenditure for 2010/11 is considered to be prudent and efficient. However, due to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works. Consequently expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Somerset Water Reticulation Mains Renewal Program

- The capital expenditure is proposed to be $1.3 million over the 2010/11-2012/13 financial years.
- The Somerset Water Reticulation Mains Renewal Program involves the replacement of water mains due to leak and break history, as an indicator of future probability of failure. The purpose is management of deficient service provision ie repeated leaks or bursts. It focuses on assets that are in poor condition and/or are under performing. These are assets approaching the end of their lives, but also include assets that show sign of early failure.
- Based on the above, the capital expenditure for 2010/11 is considered to be prudent and efficient. However, due to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works. It is recommended that Queensland Urban Utilities develop and apply a more rigorous assessment and documentation processes for this water main renewal program. Consequently expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

4.3.9.2. Capital projects not considered efficient and prudent

The following project is not considered to be prudent and/or efficient:

- Lang PDE Wet Weather Pump Station
- Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn

Lang PDE Wet Weather Pump Station

- The capital expenditure is proposed to be $2 million in the 2012/13 financial year.
- The capacity upgrade of Lang Parade Wet Weather Pump Station (LPWWPS) was identified as an outcome of the development of the master plan (2002) for S1N wastewater catchment. This upgrade is proposed to address the surcharging issue, particularly between the Lang Parade and the intersection with the Hocking St siphon. Based on outcomes from option analysis / assessment for this upgrade, the option to divert the flow from the Auchenflower sewer to downstream of the siphon intersection is preferred. This option involves the construction of a new wet weather pumping station, a rising main and high level gravity sewer.
- The updated 2006 Master Plan did not identify LPWWPS as being required for two key reasons:
  - Serious surcharge along Coronation Drive would be relieved by diverting wet weather flow (150 L/s) from Heroes Avenue pump station into the S2 West catchment
  - The overall cost / benefit of the project and Brisbane Water's acceptance of greater risk in managing wet weather surcharge in the gravity main
- While the 2006 master plan did not specifically identify the LPWWPS project for construction, on-going discussions and investigations concluded that some form of diversion (by pump station) along the Coronation Drive would be required.
- Based on the above, the project is considered to be prudent. Notwithstanding this it is recommended to Queensland Urban Utilities develop and apply a more rigorous assessment and documentation processes for this project.
- From an efficiency perspective, insufficient information is available to assess this project. It is recommended that Queensland Urban Utilities develop or provide further information to support / justify the magnitude of expenditure.
- This project should be reviewed again for its prudency and efficiency when more detailed information is available (particularly on the scope of works, efficiency and deliverability and timing).
- Queensland Urban Utilities agrees that the project is unlikely to proceed as originally envisaged and agrees with its deferment.

Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn

- The capital expenditure is proposed to be $2.6million in the 2011/12 financial year.
- The Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn project comprises the augmentation of a new 8ML reservoir at Walker Drive, Kooralbyn in the year 2051 (sic) to cater for growth in the catchment area.
- Based on the supporting documentation stating that the infrastructure is not required until 2051, the overall assessment of prudency and efficiency is not required at this point in time. It is recommended that this project be removed from the 2011/12 budget and reviewed again for inclusion into future budgets once more information is available.

Queensland Urban Utilities agrees with the deferral of the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn. A feasibility study is due to commence. During this process the requirement due to population growth for a new or upgrade to a reservoir within the Scenic Rim district will be reviewed.

A full review of these projects is included in Appendix A.3.

4.3.10. Summary of assessment of Queensland Urban Utilities capital expenditure spend

The capital expenditure for the 2010/11 financial year is prudent and efficient, with the exception of two projects within the Ipswich Distribution Water Main Minor Enhance Program.

For several rolling programs, insufficient information was provided to assess the prudency and efficiency of these projects beyond the 2010/11 financial year. Queensland Urban Utilities accepts that for some rolling programs, the exact quantum of required investment in 11/12 onwards is still in the process of being refined. Queensland Urban Utilities has requested that the funding for these three programs be retained to allow the continuation of the alignment and optimisation process currently underway. As Queensland Urban Utilities goes through the 2011/12 budget process, we understand that detailed planning will be undertaken to justify the proposed levels of investment within the rolling programs and that level of funding will be sought.

We believe that the level of information provided for this review is in line with the context of the newly formed Entity, whereby Queensland Urban Utilities is undertaking a process of aligning the established prudent and efficient policies/procedures/programs from the larger amalgamated service areas across the organisation. In future, it is recommended that further information is provided to identify the process by which projects are selected and prioritised and to identify how the quantum of work was identified. As such, we recommend that these programs are further reviewed before approval.

The only projects which are identified as entirely not prudent and efficient are the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn, due to commence in 2011/12 and the Lang Parade Wet Weather Pump Station, due to commence in 2012/13. Queensland Urban Utilities supports the deferment of both of these projects. It is recommended that these projects are removed from the capital works budget.

4.3.10.1. Demand forecast review implications

We have reviewed the draft and the draft final versions of the *SEQ Interim Price Monitoring: Assessment of Projected Demand* (Frontier Economics, 2010). The final version of this report was not available at the time of writing and we note that subsequent changes may be made to the report's recommendations. The draft version was distributed to all Entities prior to the production of the draft final version.

As stated by Frontier Economics:

> *"the quality of demand forecasts has a direct impact on... capital expenditure - particularly where growth is a major driver of system augmentations."*

One of Frontier Economics key recommendations is to increase the short term demand, ie. the number of properties connected to water and wastewater services, in line with data produced by the Planning Information and Forecasting Unit (PIFU) within the Office of Economic and Statistical Research. These increases are predicted by activity (water, wastewater), geographic area (eg Brisbane, Ipswich) and by type (residential and business). For

Queensland Urban Utilities the changes are the most significant. Ipswich has the largest increases, for wastewater up to 27% growth in residential wastewater connections (in terms of number of properties), equating to a recommended increase of nearly 17,000 properties is forecast by 2013. For water, a 9% growth in residential drinking water connections is forecast within Ipswich by 2013. These increases have implications for capital expenditure and volumetric-based operational expenditure costs.

We consider it logical to assume that the result of this is the recommended increase in demand would be that capital expenditure projects based on growth may have to be brought forward to meet this demand or that new projects may be required. As this increase in demand is not linked to specific water supply areas or wastewater catchments it would be difficult to assess the impacts on a project by project level. In addition, capital works planning is based on long term forecasting as discussed below.

Frontier Economics has made several comments regarding the consistency of short and long-term forecasts. Frontier Economics states:

> *"In the draft report [Frontier] stated that Frontier considers that demand should be broadly consistent between both short and long-term forecasts. By consistency Frontier does not mean to imply that the forecasts should be exactly the same. The meaning of the statement is that they should be broadly similar once all the meaningful differences between the two series are accounted for. Although the forecasts are undertaken for different purposes the primary objective should always be to develop the most realistic set of forecasts based on the best available data and future expectations".*

Queensland Urban Utilities has provided further information on demand forecasting for capital planning purposes to Frontier Economics in response to their draft report. This included its *Water and Sewerage Planning Guidelines*. The latest version of these Guidelines refer only to Brisbane, however a project is underway to update the guidelines to reflect the entire service area (ie, Ipswich, Lockyer Valley, Scenic Rim, Somerset). In the interim, we understand that a decision was made to adopt the current 2010 guidelines as the default planning guidelines for all of Queensland Urban Utilities. While capital projects in the other service areas may have been planned using different guidelines, it is noted that these projects will be assessed against the Guidelines as part of the review process.

It is noted that these guidelines are based around the use of peaking factors (peak hour and maximum day for water and peak wet weather flow for wastewater). In addition, Queensland Urban Utilities' average day demand aligns with the *South-East Queensland Water Strategy of 230 L/EP/d* across the region.

In its recommendation, Frontier states:

> *"Frontier accepts that the primary drivers for long-term demand forecasting and short-term forecasting differ as described by QUU."*

Frontier Economics has not recommended any changes to Queensland Urban Utilities' long term demand forecasts for capital works planning. As such, the growth projects that have been determined using this demand forecast are

not required to be reviewed. We support Queensland Urban Utilities' intention to assess proposed projects against the adopted existing Guidelines as an interim measure and to update the guidelines to reflect the entire service area in the long term.

4.3.10.2. Operational expenditure review implications

The impact of the proposed changes will, ultimately have an impact on the operational budget. However, as the forecasts for 2011/12 and 2012/13 were based on percentage increases over the 2010/11 budget, rather than on an asset by asset basis, the impact of these changes will be minimal in the short term.

4.3.10.3. RAB review implications

The capital expenditure programs will be rolled up into the RAB. We have previously produced a report on the auxiliary data component of this project, including a review of the RAB. The recommendations changes to the capital expenditure program will have not been included within the RAB. At present there is no automatic linkage between the capital expenditure program and the RAB within the Required Information Templates. If the above recommendations are accepted by Queensland Urban Utilities and the Authority, it is recommended that the recalculation of the RAB and RAB roll forward is considered.

4.3.11. Proposed revised template

A revised template will be provided to the Authority based on the above recommendations following review of the draft report by Queensland Urban Utilities. The revised template will include the removal of any projects not found to the prudent and efficient, in this case the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn project and the Lang Parade Wet Weather Pump Station.

It is recommended that projects/programs with insufficient information to review, for example several the rolling programs, are further reviewed prior to approval.

- **Table 3-18 Proposed revisions to Queensland Urban Utilities' information requirement template**

	FY10/11 Total	FY11/12 Total	FY12/13 Total
Ipswich Distribution Water Main Minor Enhance Program	$74,000 (-$40,000)	$3,187,000 (requires further review)	$3,416,000 (requires further review)
Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn	-	-$2,544,000 (remove from budget)	-
Lang Parade Wet Weather Pump Station	-	-	-$2,000,000 (remove from budget)

No attempt was made to extrapolate from sample set to the entire capital expenditure forecast.

4.3.12. Capital assessment summary

The following key conclusions have been made from the analysis of Queensland Urban Utilities' capital expenditure forecast:

- We have identified a representative sample of 15 projects. Of this sample, we have assessed 11 projects against the Authority's definitions of prudency and efficiency, including the standards of work, scope of work and the costs. Of this sample, the majority of the capital expenditure for the 2010/11 financial year is prudent and efficient.
- The only projects which are identified as not prudent and efficient are the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn, due to commence in 2011/12 and the Lang Parade Wet Weather Pump Station, due to commence in 2012/13. It is recommended that these projects are removed from the capital works budget.
- For the majority of rolling programs, insufficient information was provided to assess the projects beyond the 2010/11 financial year. Queensland Urban Utilities accepts that for some rolling programs, the exact quantum of required investment in 11/12 onwards is still in the process of being refined. Queensland Urban Utilities has requested that the funding for these three programs be retained to allow the continuation of the alignment and optimisation process currently underway. As Queensland Urban Utilities goes through the 2011/12 budget process, we understand that detailed planning will be undertaken to justify the proposed levels of investment within the rolling programs and that level of funding will be sought.
- We believe that the level of information provided for this review is in line with the context of the newly formed Entity, whereby Queensland Urban Utilities is undertaking a process of aligning the established prudent and efficient policies/procedures/programs from the larger amalgamated service areas across the organisation. In future, it is recommended that further information is provided to identify the process by which projects are selected and prioritised and to identify how the quantum of work was identified. As such, we recommend that these programs are further reviewed before approval.

Our other findings are as follows:

- Queensland Urban Utilities has provided a submission which complies with the Authority's guidelines. The Information Required Template was completed for the key activities (water and wastewater) and no costs are forecasted for billing and support services.
- In undertaking this assessment we noted a small number of non-material errors within the Information Required Template regarding the allocation of costs to sub categories.
- A project list was provided (Commissioning Model.xls). This is a highly useful and comprehensive tool which links each project to the activity (water, wastewater) geographical area, project drivers, asset class and timing of expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories.
- Currently Queensland Urban Utilities has several varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand work is underway to create a consolidated version of these standards.

- In respect of the Brisbane and Ipswich districts, Queensland Urban Utilities has well defined policies and procedures which are in agreement with good industry practice. We understand that this may not yet be the case for other geographic areas; however we understand work is underway to review these policies and procedures.
- From the documents reviewed for the representative sample, we conclude that documentation is good for the large single projects (eg master plans, feasibility studies business cases, etc); however documentation is less comprehensive for rolling programs (such as meter replacements). We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

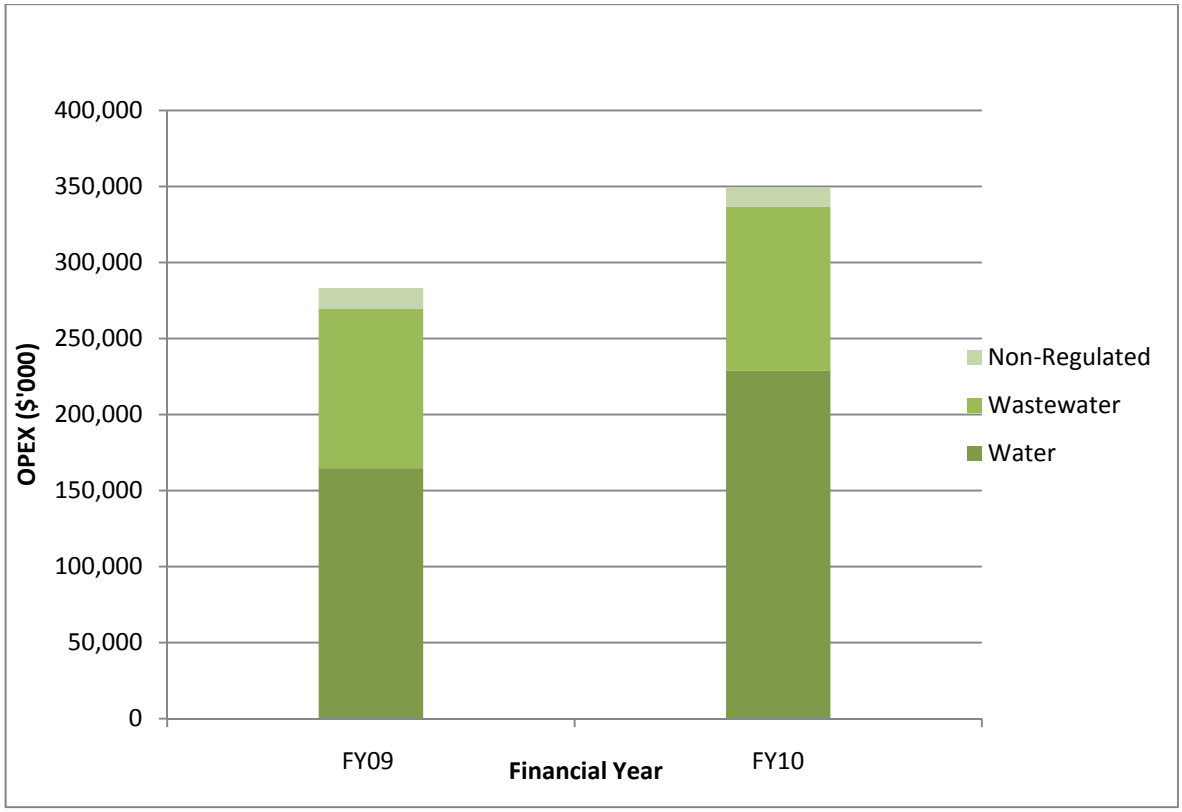
4.4. Queensland Urban Utilities Operational Expenditure Review

4.4.1. Overview of submission to Authority

4.4.1.1. Operational expenditure from 1 July 2008 to 30 June 2010

Queensland Urban Utilities has included historical operating expenses data for FY09 and FY10 in their submission to the Authority. Data was obtained from the actual FY09 financial statements for the Councils formerly provided water and wastewater services in Queensland Urban Utilities' area of operation. For FY10, a forecast of expenditure was made as the audited statements for FY10 were not available at the time of the submission.

We have shown in Figure 3-7 below, the combined Council operating expenditure for water and wastewater services in FY09 and FY10 was $283.2M and $349.3M respectively.



Source: Queensland Urban Utilities Information Requirements Template

- **Figure 3-7 Historical operating expenditure for councils that form Queensland Urban Utilities**

As Queensland Urban Utilities, along with the other SEQ water Entities, is in its first few months of operation, an assessment of the actual operating expenditure against previous year's budgets under the Queensland Urban Utilities business model is not possible at this stage (an assessment of each of the Councils performance against budgeted expenditure is possible, but it is not appropriate for this interim price monitoring assessment).

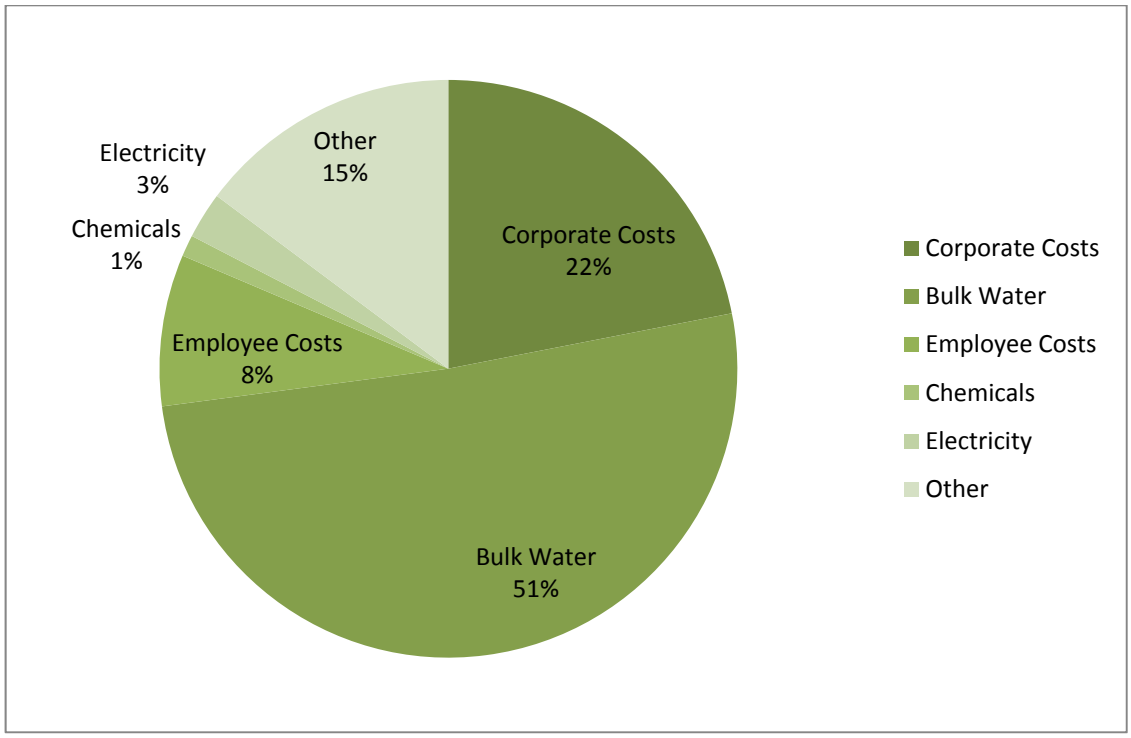
Nonetheless the evaluation of actual and budgeted operating expenditure in future price monitoring assessments by the Authority would be considered standard regulatory practice and indeed would be valuable in helping each Entity identify areas of improvement when developing their respective operating expenditure budgets.

Queensland Urban Utilities has noted that western councils (ie Lockyer Valley, Scenic Rim and Somerset) did not operate separate water business. It is therefore difficult to apportion all of the costs from previous years' financial records to the categories in the information requirement template. By way of example, customer service was used for all Council activities. Hence, the information return should not be read as five years of consistent data. This is seen in the step change of the wastewater activity in the western Councils from FY10 to FY11.

4.4.1.2. Operational expenditure from 1 July 2010 to 30 June 2013

Queensland Urban Utilities has an operating expenditure budget of $1,406M for the interim price monitoring period (FY10, FY11 and FY12).

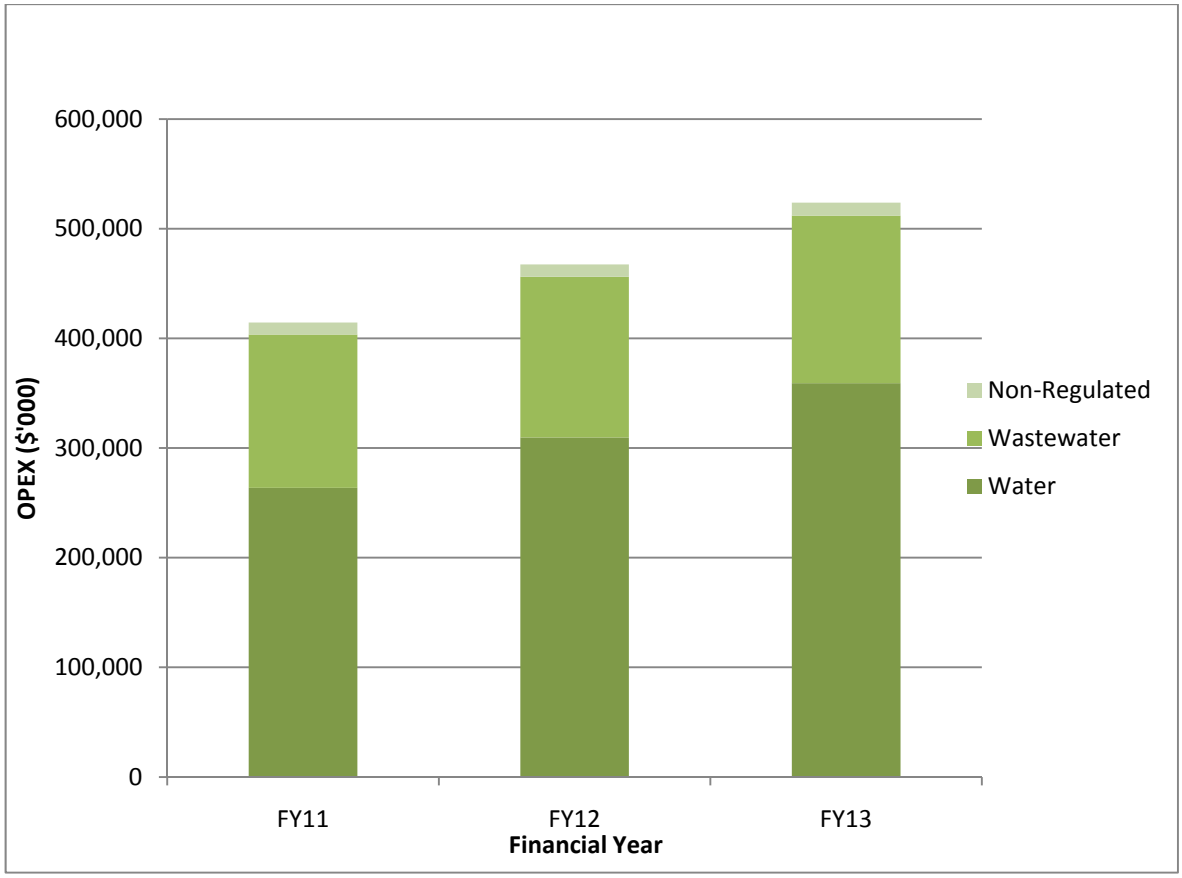
The major cost categories within the operating budget are bulk water purchases, corporate costs, employee costs, electricity and chemicals which we depicted in Figure 3-8.



Source: Queensland Urban Utilities Information Requirements Template

- **Figure 3-8 Overview of Queensland Urban Utilities operating expenditure for FY11-13**

Queensland Urban Utilities have forecast that that its operating expenditure will increase from $414.5M in FY11 to $523.9M in FY13 which we depicted in Figure 3-9.



Source: Queensland Urban Utilities Information Requirements Template

- **Figure 3-9 Forecast Queensland Urban Utilities operating expenditure for FY11-13**

We have noted a step change in the operating expenditure for the wastewater activity for Lockyer Valley, Somerset and Scenic Rim.

In response Queensland Urban Utilities have indicates that:

> "Care must be taken in comparing the historical costs for these districts as either the participating Councils did not separate their cost information in to the two activities and Queensland Urban Utilities did a very basic allocation or they did separate some costs but not all ie Somerset. It is advisable to compare the costs at the Council level not the activity level".

Forecast operating expenditure was developed by identifying relevant cost escalation indices. For volume related costs, such as chemicals and electricity used in treatment processes and pumping, growth factors have also been identified. The indices and growth factors used in Queensland Urban Utilities' submission are summarised in Table 3-19 below.

Table 3-19 Queensland Urban Utilities operating expenditure indices and growth factors

Cost Group	Cost Index		Growth Factors				
	2011/12	2012/13	Brisbane	Ipswich	Lockyer Valley	Scenic Rim	Somer-set
Population			1.33%	5.44%	2.83%	3.3%	2.57%
Direct Labour	4.30%	4.25%	1.0%	1.50%	1.50%	1.50%	1.50%
Bulk Water			Estimate bulk water volumes at Water Grid Manager forecast prices indexed at 2.5%pa				
Electricity	2.50%	2.50%	Aligned to percentage change in bulk water volumes				
Chemicals	2.50%	2.50%	Aligned to percentage change in bulk water volumes				
Sludge Handling	2.50%	2.50%					
Infrastructure	2.50%	2.50%	Not applicable				
Doubtful debts							
Other Costs	2.50%	2.50%	0.25%	0.40%	0.40%	0.40%	0.40%

Source: Queensland Urban Utilities Price Monitoring Information Return

We show in Table 3-20 and Table 3-21 below summarises Queensland Urban Utilities' total operating cost from FY11 to FY13 for water and wastewater services. Operating costs for water and wastewater services are forecast to increase by 36% and 9% respectively. However, by excluding the pass-through costs for the supply of bulk water, operating costs for water services increase by 10%.

Note that Queensland Urban Utilities' original submission did not include costs against all of the cost categories listed in the information template. Subsequent to the submission, Queensland Urban Utilities has confirmed that cost categories left blank have been aggregated into other categories. For example, corporate costs and license and regulatory fees have been included in Materials and services.

Table 3-20 Queensland Urban Utilities' forecast operating expenditure for water, FY11-13 ($000)

	2010/11	2011/12	2012/13
Bulk water costs	188,731.8	230,845.8	276,476.8
Retail operating costs:	-	-	-
Customer service and billing	-	-	-
Regulated demand management costs	-	-	-
Community service obligations	-	-	-
Distribution operating costs			
Employee expenses	12,919.3	13,651.6	14,391.4
Contractor expenses	125.0	132.5	140.1
GSL payments	-	-	-

	2010/11	2011/12	2012/13
Materials and services	61,912.7	65,085.3	68,118.5
License and regulatory fees	-	-	-
Natural resource management costs	-	-	-
Corporate costs	-	-	-
Total operating expenditure for water	263,688.9	309,724.2	359,126.9

Source: Queensland Urban Utilities Information Requirements Template

- **Table 3-21 Queensland Urban Utilities' forecast operating expenditure for wastewater, FY11-13 ($000)**

	2010/11	2011/12	2012/13
Bulk water costs	944.0	1,128.6	1,312.4
Retail operating costs:	-	-	-
Customer service and billing	-	-	-
Regulated demand management costs	-	-	-
Community service obligations	-	-	-
Distribution operating costs			
Employee expenses	23,806.5	25,155.1	26,517.2
Contractor expenses	125.0	132.5	140.1
GSL payments	-	-	-
Materials and services	114,953.7	120,021.6	124,956.2
License and regulatory fees	-	-	-
Natural resource management costs	-	-	-
Corporate costs	-	-	-
Total operating expenditure for water	139,829.3	146,437.7	152,926.0

Source: Queensland Urban Utilities Information Requirements Template

For clarification, the bulk water costs indicated in the above table are for purified recycled water purchased from the SEQ Bulk Water Grid Manager.

4.4.2. Operational costs definition

Operating expenditure can be broadly described as the day to day costs incurred by the Entity in delivering water and wastewater services to its customers.

These costs can be incurred from a range of activities. Some of these expenses are typical of any business, such as labour, office accommodation and other corporate overheads. Other costs are specific to the water and wastewater industry including:

- Bulk water - costs charged by the SEQ Bulk Water grid manager for the delivery of bulk water.
- Retail costs - expenditure related to customer enquiries billing and revenue collection.
- Operations and maintenance - materials and services necessary to ensure that water and wastewater infrastructure operate efficiently and effectively.
- Treatment - costs for the processes required to treat water and wastewater to ensure compliance with relevant health and environmental standards.
- License fees and regulatory compliance - paid to government departments and regulatory authorities.

Accepted industry practice is for operating expenditure to be recovered from customers in the year that it is incurred. In contrast, the recovery of capital expenditure from customers is generally spread over many years. This means that from year to year operating expenditure will fluctuate according to current market conditions.

4.4.3. Adequacy of operational expenditure information provision for completion of operational expenditure templates

Following our review of the Queensland Urban Utilities' submission we conclude that the information return substantially complies with the Authority's requirements. Aside from minor information gaps we consider the submission to be suitable for assessment of reasonableness.

We highlight the key points are:

- Costs have not been allocated against all of the categories identified in the template. Queensland Urban Utilities has confirmed that costs for categories such as Customer service, License and regulatory fees have been included in other categories. A recommendation for future submissions is to ensure costs are assigned against all categories.
- As this is the first year of operation for the Entities, forecast budgets have been provided for the interim price monitoring period (FY2011-13) only. This is in line with the Authority's reporting requirements.
- Queensland Urban Utilities has noted that western Councils (ie Lockyer Valley, Scenic Rim and Somerset) did not operate separate water business. It is therefore difficult to apportion all of the costs from previous years' financial records to the categories in the return. For example, customer service was used for all Council activities. Hence, the return should not be read as five years of consistent data. This is seen in the step change of the wastewater activity in the western Councils from FY10 to FY11.
- Details of third party transactions (names of parties, values of transactions, basis of payments) are included in the return. Queensland Urban Utilities was requested to clarify the categories where the payments for these services appear in the price monitoring returns.
- Details of related party transactions (names of parties, values of transactions, basis of payments) are included in the return. Queensland Urban Utilities was requested to clarify the categories where the payments for these services appear in the price monitoring returns.

We have provided further detail on the information provided by Queensland Urban Utilities in the information return. Please refer to Appendix A.4.

Conclusion

Queensland Urban Utilities has provided sufficient information for the Authority to review the reasonableness of operating costs.

4.4.4. Operational expenditure data selection

The Authority advised us that a representative sample is to include:

> *"the top 10% of retail/distribution operating costs by value in each activity and geographic area, over the forecast period and for 2010/11. The sample should also include at least 50% of the total retail/distribution operating expenditure over the forecast period and for 2010/11 – if not, an additional random sample of assets comprising 30% (by number) of remaining assets is required".*

Bulk water costs of $699M over the three year interim price monitoring period contribute a significant portion of the overall Operating Costs for Queensland Urban Utilities. The prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are not controllable by Queensland Urban Utilities; hence, these have been excluded from the pool of operational costs from which the sample for detailed analysis will be selected.

The representative sample for Operating Costs was selected as:

- Employee Costs
- Corporate Costs
- Electricity
- Chemicals

Together, these account for 70% of the controllable operating costs for FY11 to FY13. We provide in Table 3-22 details the percentage of operating costs represented by the sample for each geographic area and activity.

Table 3-22 Queensland Utilities Sample as a percentage of total operating costs

Geographic area	Water activity (excl. Bulk Water)	Wastewater activity
Brisbane	72%	67%
Ipswich	72%	69%
Lockyer valley	79%	93%
Scenic Rim	88%	89%
Somerset	66%	82%

4.4.5. Operating expenditure assessment method

The operating expenditure assessment was carried out in two stages:

- Stage 1 – Identification and collation of information
- Stage 2 - Assessment of reasonableness

These stages are describes as below.

Stage 1 – Identification and collation of information

Following the selection of a representative sample of operating cost categories, Stage 1 involved the identification of information required for the review. A Request for Information (RFI) was issued for each cost category indicating the type of information required.

Stage 2 - Assessment of reasonableness

Our approach to assessing the Queensland Urban Utilities' operating expenditure is to answer the following three questions:

- Do the policies and procedures used to develop the operating budgets represent good industry practice?
- Can the operating costs in aggregate and major cost categories be considered reasonable?
- Are the necessary systems and programmes in place to provide the Authority in future submissions with sufficient information for informed pricing and reporting?

From our experience working with several water utilities in Australia and around the world, policies and procedures for the development of operating expenditure budgets that reflect *good industry practice* would ensure that:

- A consistent approach and standards are used across the entire area of operation
- The budget process was approved by senior management
- The process includes an evaluation of actual expenditure against budgeted expenditure for previous years to identify the underlying causes of overspend or underspend and to ensure that poor assumptions are not carried forward to future years
- Where sufficient data is available zero-base budgets are developed periodically to verify forecast expenditure
- Protocols for changes and communications have been defined
- Parameters that apply across the organisation have been identified
- A programme for budget review and approval are in place
- Any changes made during the review process are clearly defined with justifications and communicated to the relevant parties
- Final budgets have been approved by senior management

For expenditure to be considered *reasonable* the Entities will have to demonstrate that:

- Changes to the allocation of operation costs on a geographic basis or activity basis over the monitoring period are be backed by sound reasoning
- Aggregate operation costs for water and wastewater services are comparable with other Australian water utilities of similar size
- Cost categories that are driven by volumes or quantities have forecast costs using growth actors in line with population growth, overall water demands, or changes in the number of customers
- Cost escalation indices are relevant to the cost category being considered and are in line with historic trends and related industry projections

Our assessment recognises that Queensland Urban Utilities is a newly formed Entity and that the information systems and processes currently in place may not be the same of those expected in a mature regulated industry. Moving forward, Queensland Urban Utilities will have to show that:

- It has developed operational budgets from fully auditable financial models that accurately reflect growth, and forecast cost escalations
- Costs can be allocated by activity, geographic areas, asset class and by cost driver to enable as per the Authority's Information Requirement Template.

4.4.6. Workforce Agreement

The *SEQ distribution and Retail Water Reform: Workforce Framework* (2009, Queensland Government)was established by the Councils of Mayors (SEQ) to assist Councils, employees and the new Entities during the water reform process. The objective of the framework is to establish the terms and conditions of employment that will be applied during the water reforms.

The framework applies to both employees transferred to a new water Entity from a Council, and those retained by Council to undertake Service Level agreements (SLA) on behalf of a new water Entity. The framework expires three years from when either the employee transfers to the new Entity, the employee is notified they will remain with Council, or 30 June 2013 for a new employee who joins the new water Entity after 1 July 2010.

The framework is underpinned by the following principles:

- Public ownership of water assets is to be retained
- Labour savings are not a driver for reform
- Staff and unions have been, and will continue to be engaged throughout the reforms
- There will be no forced redundancies of employees affected by reforms
- There will be no forced relocations for 12 months from the date of transfer
- Workers' entitlements and conditions will be protected
- The terms and conditions of employment contracts will be honoured

The Queensland Government has also enacted legislation to ensure that employees transferred from councils to the new Entities are protected (*South-East Queensland Water (Distribution and Retail Restructuring) and Natural Resources Provisions Act 2009 and Amendments*).

In undertaking the assessment of Queensland Urban Utilities operating costs we accept that the Workforce Framework imposes constraints on the Entities, over and above those expected with other businesses.

The most significant constraint is the "no forced redundancies" principle. The framework ensures that there are no forced redundancies or no overall loss of employment directly as a result of the water reforms within the councils of the new Entities during the reform period (1 July 2010 to 30 June 2013).

The framework limits the degree that efficiency of labour can be achieved from FY11 to FY13. Where the transferred number of employees results in a surplus number of employees in the new Entities organisational structure the CEO of the new Entity is to consider retraining or redeployment options.

The identified related costs arising from the Framework include:

- New industrial agreements (within 12 months of the transfer of employees)
- Accrued entitlements are to be transferred to employees (long service leave, annual leave, sick leave)
- Lump sum or employee salary in lieu of motor vehicle or other entitlements
- Appropriate and reasonable training and assistance to transferring employees
- Redeployed to a lower level, salary maintained for 12 months
- Compensation for excessive travel distance (relocation costs or greater than 5km from previous workplace)

4.4.7. Commentary on business processes for operational expenditure budgeting

We have reviewed the guidelines for the preparation of 2010/11 Queensland Urban Utilities budgets. The document provides a comprehensive guide to the development and approval process for the operating budgets including:

- Outline of the budget process
- Who has approved the process
- Responsibilities
- Budget approval and development
- Protocols for changes and inter-council communications
- Parameters to be applied (eg CPI)
- Review and approval programme
- Schedules to be produced

Budgets were developed in two stages. Firstly, the five water council water businesses that make up Queensland Urban Utilities were asked to prepare a budget for the business in FY11, as if the business were to continue without any institutional reform. These are referred to as 'as-is' budgets.

Each council was required to confirm that their budget had been prepared in accordance with the guidelines.

The second stage involved the determination of changes for the new business model under Queensland Urban Utilities. This was undertaken by key service line managers within Queensland Urban Utilities and are referred to as the 'to be' budgets.

The final operational budgets were developed from a combination of the 'as is' and ''to be' budgets with the rationale and reasoning behind the final budgets documented within Queensland Urban Utilities' financial model. Budgets were approved by the Queensland Urban Utilities CEO in April 2010, and presented to the Board for their information.

The budget was endorsed by the Establishment committee of Queensland Urban Utilities and approved by the Queensland Urban Utilities Board.

The budgets are underpinned by zero base models for asset maintenance, planned schedule maintenance, corrective maintenance, responsive maintenance, operations (electricity, chemicals, sludge handling) and management of resources. The chemical and electricity models in particular, use historical analysis of resource usage and growth factors to forecast chemical and electricity usage in subsequent years.

Our examination of the working documents shows that where changes have been made these are clearly annotated to indentify the reasons for the changes.

Conclusion

Following our review of Queensland Urban Utilities' operation expenditure budget processes we conclude that they represent good industry practice.

4.4.8. Summary of assessment of Queensland Urban Utilities operational expenditure

4.4.8.1. Costs in aggregate

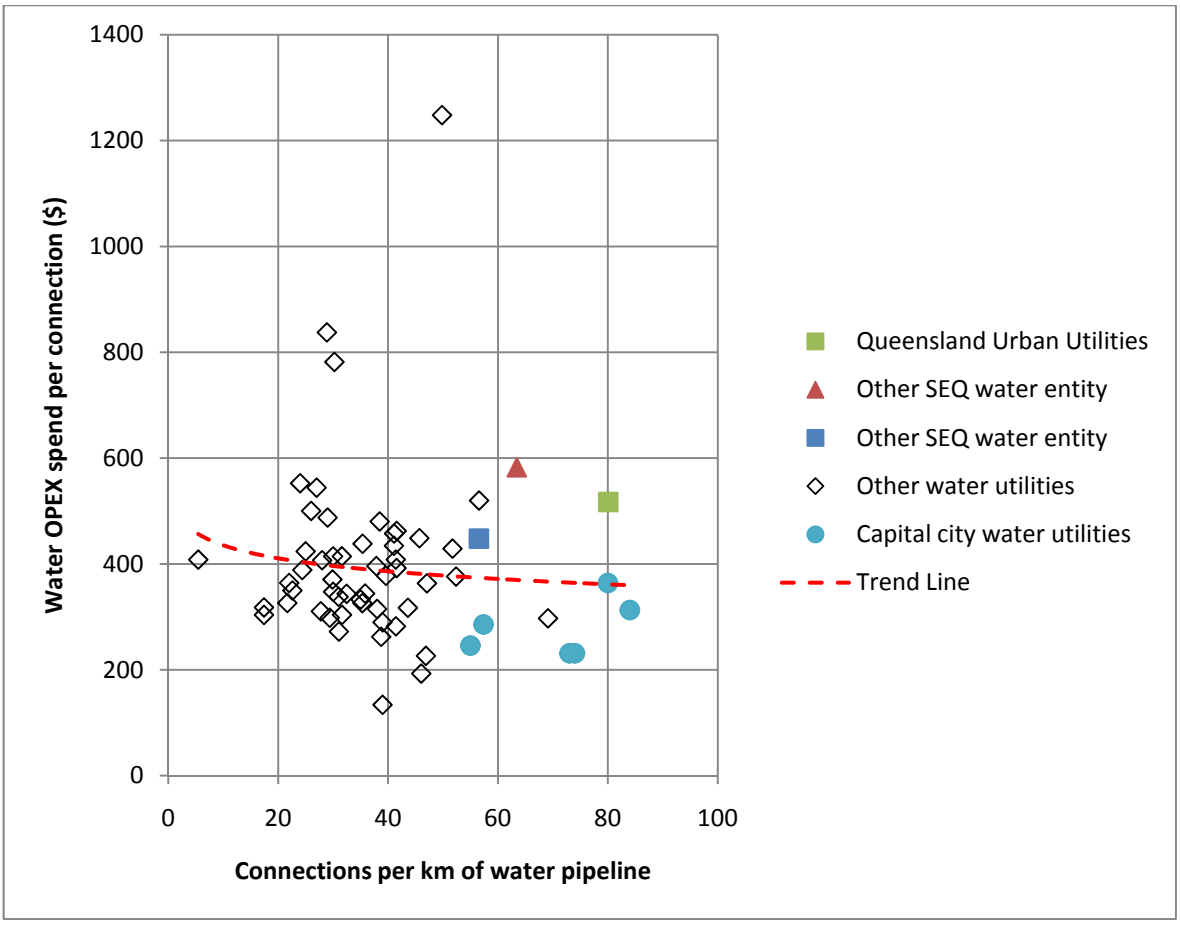
Total operational expenditure

Queensland Urban Utilities' submission to the Authority shows an increase in operating expenditure for water and wastewater services from $269.5M in FY09 to an estimated $512.1M in FY13. This equates to an average annual increase of 17.4% for the period, significantly above inflation. Queensland Urban Utilities has indicated the key cost drivers behind the increases are:

- Bulk water unit cost increases

- Increased demand due to population growth, and recently, bounce back in consumption after lifting of water restrictions
- Compliance with environmental standards

When assessing the aggregate operation costs comparing operating expenditure spend per connection will tend to favour the larger utilities that have a large customer base. Likewise, comparing operating expenditure per pipeline length will tend to favour smaller utilities. To be able to show the relative performance of Queensland Urban Utilities' operating expenditure with their peers a "two dimensional" normalisation was used to develop a cost curve for water and wastewater services.



Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

- **Figure 3-10 Comparison of Queensland Urban Utilities' FY11 operating expenditure spend on water with other Australian water utilities**

In Figure 3-10 we compare the operating expenditure on water services for a range of Australian water utilities. A CPI index (*ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of*

Eight Capital Cities) was applied to the data to adjust the costs to 2010/11 dollars. Water utilities from other Australian capital cities have also been highlighted. The chart shows that Queensland Urban Utilities' operational costs, as with the other new SEQ water Entities, are generally higher than those of similar sized water Authority's. This is due in part to the pass-through cost for bulk water. Data was sourced from National Water Commission which reports 2008 expenditures for several water utilities around Australia.

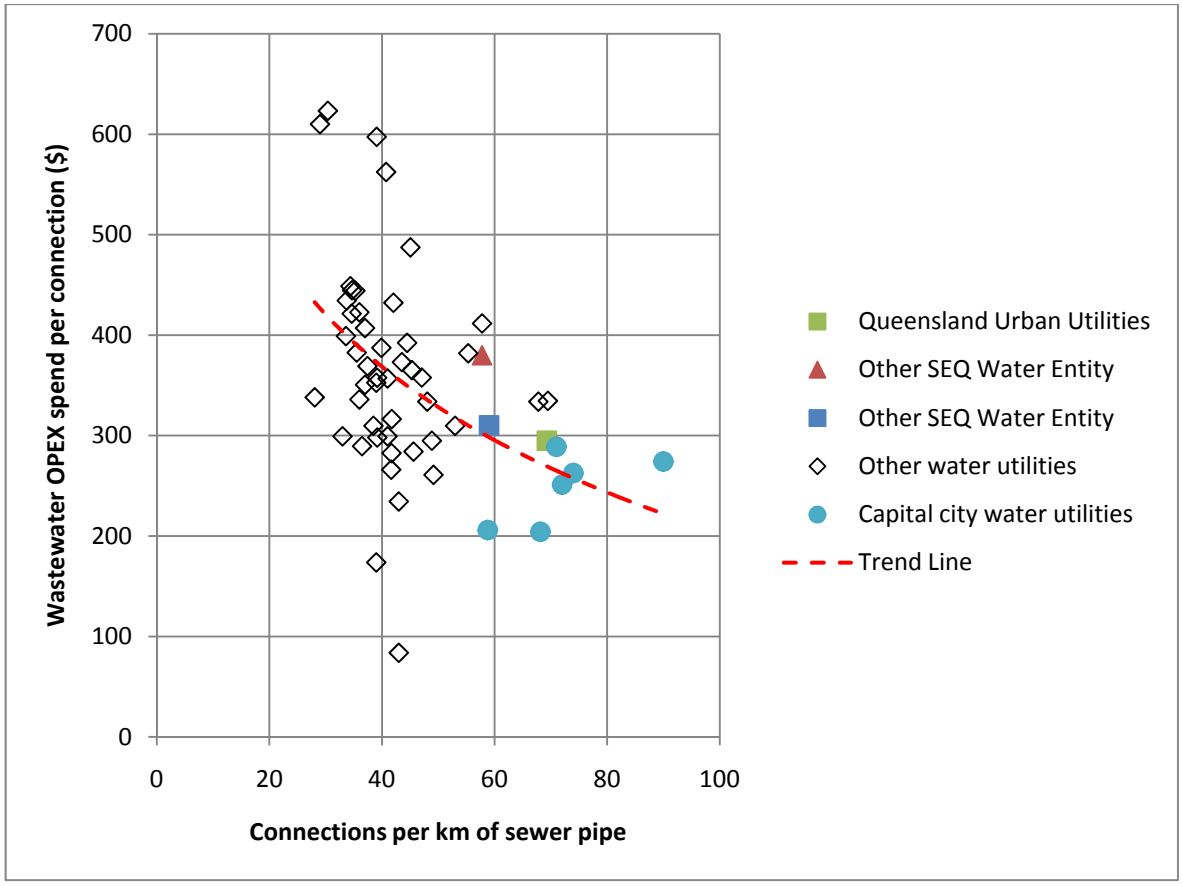
As we show in, Table 3-23, bulk water costs for Queensland Urban Utilities' operating area ($1.45-2.09/kL) are significantly higher than bulk water charges in both Sydney ($0.59/kL) and Melbourne ($0.67-0.72/kL).

Table 3-23 Comparison of bulk water costs

Water Utility/area	Bulk water cost ($/kL)	Controllable Water operating expenditure (FY11) ($/connection)
Brisbane	1.52	
Ipswich	1.45	
Scenic Rim	1.82	147
Somerset	2.09	
Lockyer Valley	1.71	
Allconnex Water	0.93-1.84	188
Unitywater	1.07-1.65	173
Sydney Water Corporation	0.58	139
City West Water	0.72	130
South East Water	0.70	97
Yarra Valley Water	0.67	168

Source: Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template; Essential Services Commission Review for City West Water, South East Water, Yarra Valley Water; IPART Review of Sydney Water Corporation, Sydney Catchment Authority.

Although a full set of data is not available for Australian water utilities a comparison was made for the controllable operating expenditure (ie. total operating expenditure less bulk water charges) for the three new SEQ water Entities, and metropolitan water utilities in Sydney and Melbourne. On a per connection basis, Queensland Urban Utilities' controllable operating expenditure is analogous with interstate water Authority's.



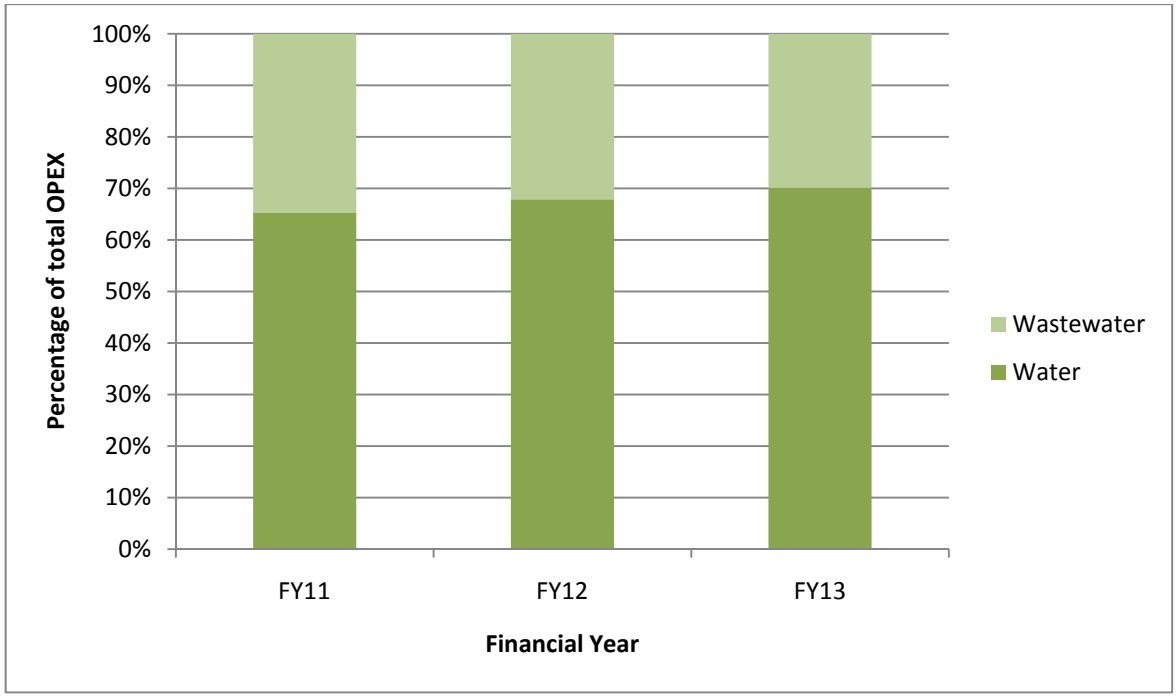
Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

- **Figure 3-11 Comparison of Queensland Urban Utilities' operating expenditure spend on wastewater with other Australian water utilities**

We benchmark Queensland Urban Utilities' wastewater operating expenditure in Figure 3-11. From this we conclude that Queensland Urban Utilities' proposed operating expenditure spend for FY11 is in line with those of other Australian water utilities.

Operational expenditure by activity

Queensland Urban Utilities undertakes three activities: water services, wastewater services and non-regulated services. We show in Figure 3-12 shows the proportion of operating costs for water and wastewater services for Queensland Urban Utilities.



Source: Queensland Urban Utilities Information Requirements Template

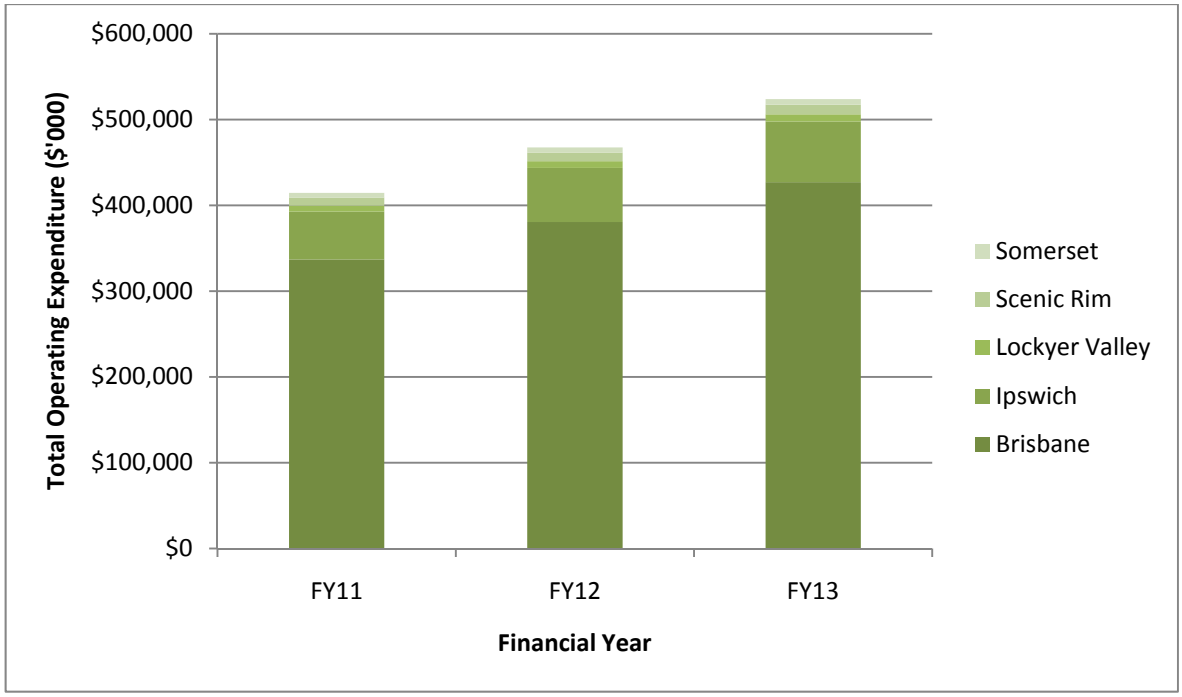
- **Figure 3-12 Queensland Urban Utilities' operating expenditure by activity for FY11-13**

As noted in the National Water Commission's National Performance Report, the trend is for larger utilities (ie. those with more than 100,000 connections) to spend relatively more on water operational costs than for wastewater. Queensland Urban Utilities' operating expenditure profile for FY11 to FY13 is consistent with this trend.

The increasing proportion of operating expenditure on water services over the interim monitoring period can be attributed to the expenditure on bulk water increasing at a greater rate than the other operating expenditure cost categories.

Operational expenditure by geographic area

Of the five former council areas that make up Queensland Urban Utilities area of operation, Brisbane City has by far the greatest population, and hence, is where the majority of the operating expenses are budgeted for. In contrast, the western regional Councils (Lockyer Valley, Scenic Rim and Somerset) attract only five percent of the operating expenditure. Refer to Figure 3-13.



Source: Queensland Urban Utilities Information Requirements Template

- **Figure 3-13 Queensland Urban Utilities' operating expenditure for FY11-13 by geographic area**

The chart shows that the relative proportion of expenditure between the five geographic areas remain consistent throughout the interim price monitoring period.

Conclusion

When considered in aggregate, Queensland Urban Utilities' operating costs for water and wastewater services are considered reasonable from FY11 to FY13.

The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs.

No significant change in the geographic allocation of operating expenditure was identified.

4.4.8.2. Major operational costs

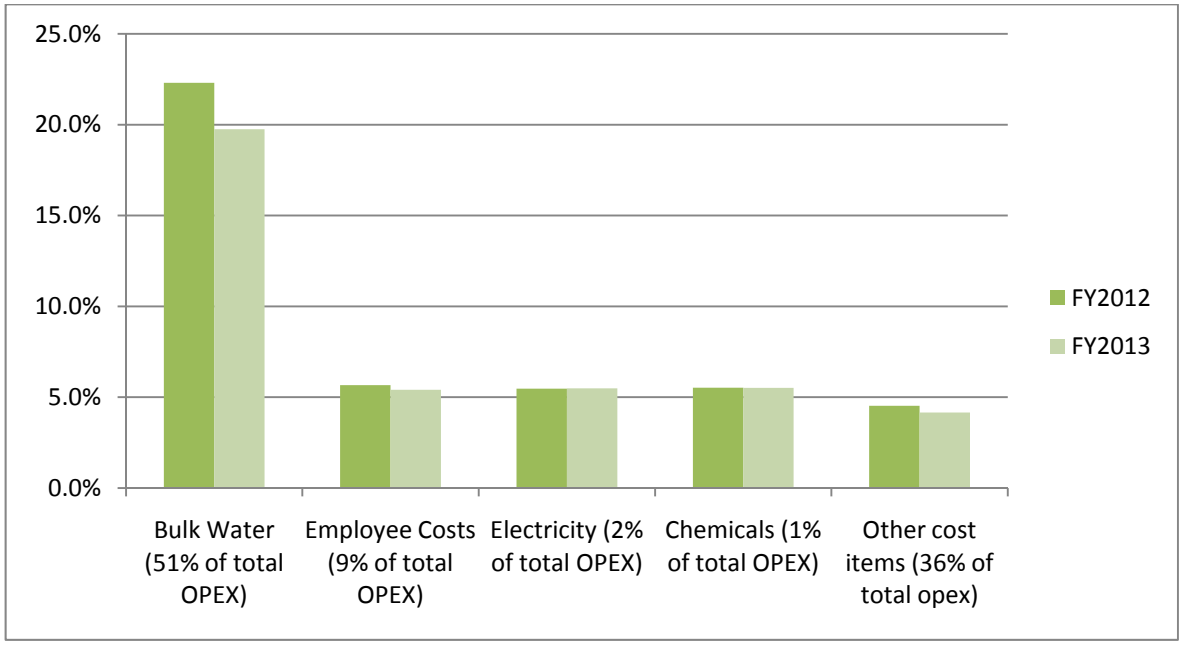
The operating programmes or cost centres that comprise the greatest proportion of operating expenditure for the interim price monitoring period, that is, from 1 July 2010 to 30 June 2013, are summarised below and briefly discussed in the following sections of the report. The cost items account for 62% of overall operating costs for the period. See Table 3-24.

Table 3-24 Queensland Urban Utilities' major operating costs

Cost Centre	FY2011	FY2012	FY2013
Major cost items:			
Bulk water	189.7M	232.0M	277.8M
Employee costs	38.9M	41.1M	43.3M
Electricity	11.3M	11.9M	12.5M
Chemicals	5.2M	5.5M	5.8M
Other cost items	169.4M	177.1M	184.4M
TOTAL	414.5M	467.5M	523.9M

Source: Queensland Urban Utilities Information Requirements Template

The figure below shows the year on year percentage increase for each of the major cost categories. These percentages are made up from both cost escalations and growth factors. Queensland Urban Utilities' costs relating to bulk water are clearly increasing at a greater rate than those of the other operating costs.



Source: Queensland Urban Utilities Information Requirements Template

Figure 3-14 Cost drivers for operating expenditure FY11-12

Bulk water costs

The purchase of bulk water from the SEQ Water Grid Manager comprises a significant portion of Queensland Urban Utilities' operating expenditure for 2010/11 and for the forecast period. From 2008/9 to 2012/13 the expenditure on bulk water storage, treatment and delivery is seen to increase by 87%, or $129.4M. This can be attributed to both an increase in demand and increases in unit costs for bulk water.

The prices charged by SEQ Water Grid Manager have been set by the Queensland government and are not a cost that is controllable by Queensland Urban Utilities. As such, our analysis is limited to:

- Confirming that costs are carried through to the consumer in full
- Confirming that the budget expenditure is congruent with projected demands and unit prices

An examination of the Queensland Urban Utilities tariff structure confirms that the costs charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery is consistent with the bulk water rate charged to customers.

Table 3-25 below, shows the calculation of bulk water costs for the geographic areas that make up the Queensland Urban Utilities operating area. The calculation establishes that demands multiplied by the bulk water unit prices are consistent with the budgeted bulk water expense.

Table 3-25 Queensland Urban Utilities' bulk water costs for FY11

Geographic Area	Demand (ML)	Unit Price ($/kL)	Demand x Unit Price ($)	Budgeted Bulk Water Cost ($)
Brisbane	102,464	1.517	156.4M	156.5M
Ipswich	16,788	1.453	24.4M	24.4M
Lockyer Valley	1,458	1.710	2.5M	2.5M
Scenic Rim	1,378	1.817	2.5M	2.6M
Somerset	1,274	2.087	2.7M	2.7M

Source: Queensland Urban Utilities Information Requirements Template, Queensland Water Commission

Conclusion

Queensland Urban Utilities' operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

Employee costs

In its completed Information Requirement Template, Queensland Urban Utilities has identified an increase in labour costs from $38.9M in FY11 to $43.3M in FY13. In nominal terms this represents a 5.7% increase in FY12, and 5.40% increase in FY13.

Queensland Urban Utilities have identified labour costs as:

- Salaries and wages
- Overtime
- Temporary agency staff
- Employee incentive schemes
- Staff training
- Fringe benefit taxes
- Payroll taxes
- Superannuation contributions
- Workers compensation
- Annual, long service and sick leave
- Other labour related costs

We have reviewed these categories and confirm that these are consistent with the Authority's definition of Employee Costs as noted in the Information Requirements for 2010/11.

The increase in employee costs can be attributed to both an increase in employee numbers and cost escalation for labour.

Queensland Urban Utilities have nominated a modest growth in employee numbers of between 1.0 and 1.5% depending on geographic area.

Cost escalation for labour costs have been identified as 4.30% and 4.25% for FY12 and FY13.

The *Forecast for labour costs growth March 2010 Report* (2010, Access Economics) was commissioned by the Australian Electricity Regulator and provides labour indices for the Electricity, Gas, Water and Waste services industry to 2017-18 for New South Wales, Victoria, Queensland, South Australia, the ACT and Australia in aggregate . The forecast specific to Queensland utilities have been used to benchmark labour costs for the Entities, and are presented in Table 3-26 below. The *Labour Price Index for the hourly rates for public servants in the Electricity, Gas, Water and Waste Services* (2010, Australian Bureau of Statistics) are also presented for comparison with historical trends in the industry.

Table 3-26 Comparison of labour cost escalation indices

Year	Queensland Urban Utilities	Australian Energy Regulator	ABS, Labour Price Index
FY09	-	4.9%	4.38%
FY10	-	3.6%	4.40%
FY11	-	3.8%	
FY12	4.30%	4.2%	

Year	Queensland Urban Utilities	Australian Energy Regulator	ABS, Labour Price Index
FY13	4.25%	3.9%	

Source: Queensland Urban Utilities Price monitoring Information Return, Australian Energy Regulator, Australian Bureau of Statistics

As shown in the above table, from our analysis we conclude that Queensland Urban Utilities labour cost indices are in line with both the AER forecast indices and the historic trends as derived from the Labour Price Index.

Importantly, future submissions should include cost escalation for employee costs that are in line with the Employment Bargaining Agreements currently being negotiated.

We have not undertaken an investigation of the prudency and efficiency of the cost categories that encompass employee costs (eg the reasonableness of superannuation contributions, staff training programmes) has not been undertaken as part of the assessment of the reasonableness of operating costs.

Conclusion

The labour cost indices and growth factor used by Queensland Urban Utilities to determine employee costs are considered reasonable. We do not propose a revision to the Information Requirement Template for Employee Costs is required.

Corporate costs

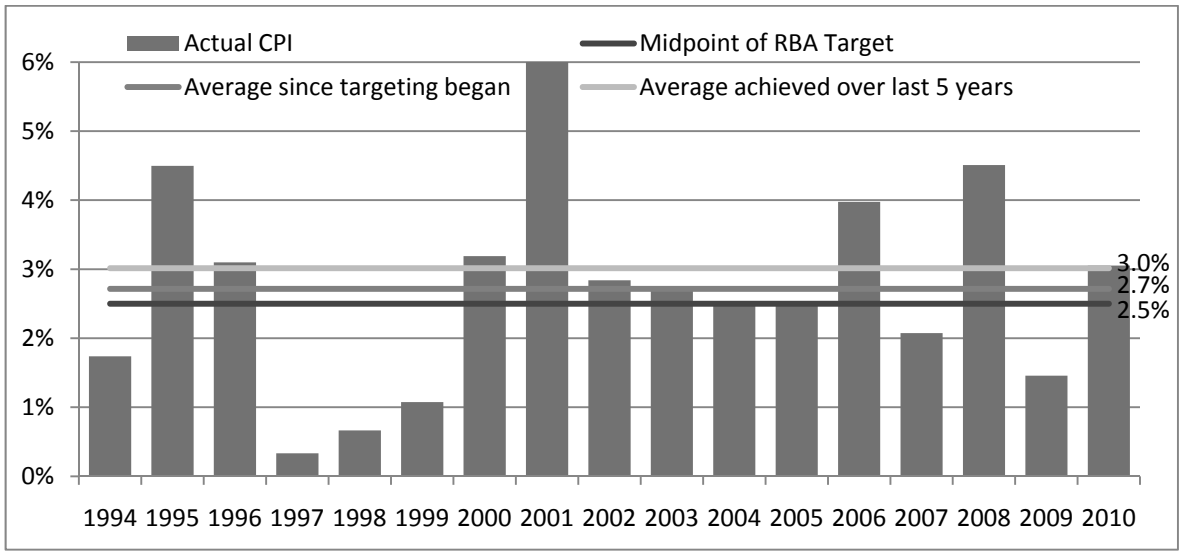
Corporate costs have been included under the '*Materials and services'* cost category within Queensland Urban Utilities Information Requirements Template. The level of disaggregation of data has not been sufficient to allow us to demonstrate whether items under the corporate costs category are consistent with the definition in the *SEQ Interim Price Monitoring Information Requirements for 2010/11, July 2010.* Our examination of Queensland Urban Utilities' account mapping show that the categories used in the accounting system do not readily align with the cost categories in the Authority's Information Requirement Template. Queensland Urban Utilities has also indicated that ambiguity in the definitions of each category makes it difficult to apportion the costs appropriately.

Corporate costs are not driven by growth in customers or demand; hence no growth factors have been applied.

Instead, an annual cost escalation of 2.5%, in line with the consumer price index (CPI) was allowed for. In seeking to understand the overall reasonableness of such a CPI forecast, we established that since first targeting its current range of 2-3% in 1993, the RBA has historically achieved an *actual* average Year to June CPI of 2.7%[13], and over the most recent five years the actual CPI achieved during this targeting regime has resulted in an average Year to June CPI of 3%, both of which are higher than the expected midpoint of the target range of 2.5%.

[13] ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities.

This "above the midpoint of the RBA's targeting range" historic CPI result is illustrated through Figure 3-15 below.



Source: Australian Bureau of Statistics

- **Figure 3-15 RBA CPI targeting results**

Conclusion

Queensland Urban Utilities' adopted general cost escalation of 2.5% is seen to be lower than the average actual CPI over the last five years, but nonetheless a reasonable estimation. No revisions to the Information Requirement Template for Corporate Costs are proposed.

However, further refinement of Queensland Urban Utilities' Financial Model is required to allow highly disaggregated data to be recorded against each of the cost categories for future price monitoring submissions.

Electricity costs

Queensland Urban Utilities uses electricity for their water and wastewater pumping, treatment operations as well as corporate offices.

In its Information Requirement Template Queensland Urban Utilities has budgeted for electricity costs of $11.26M in FY11, increasing to $12.53M in FY13. Electricity is supplied to Queensland Urban Utilities by Origin Energy, Integral Energy and Energy Australia as specified in the Third Party Transactions of the Price Monitoring Information Return. Forecast expenditure for electricity is summarised in Table 3-27 below.

Table 3-27 Queensland Urban Utilities' forecast electricity costs

Year	Water	Wastewater	Total
FY11	1.32M	9.94M	11.26M
FY12	1.39M	10.49M	11.88M
FY13	1.47M	11.06M	12.53M

Source: Queensland Urban Utilities Information Requirements Template

We have reviewed the electricity model used by Queensland Urban Utilities to develop the FY11 budget. The model provides a comprehensive calculation of electricity costs by taking into account forecast water and wastewater flows, peak/off-peak splits and allowance for sourcing Green Energy. The model also includes a cost escalation of 13.3%.

Although the model only encompasses Brisbane assets Queensland Urban Utilities has indicated that this model would be expanded to include all of Queensland Urban Utilities' operating area in future years.

The forecast of electricity costs for FY12 and FY13 are less sophisticated, with an increase of 2.5% for cost escalation and 2.0% for growth.

For large water utilities such as Queensland Urban Utilities the majority of electricity is consumed by infrastructure that pumps water and wastewater or treatment processes, and will increase or decrease in proportion to the amount of water or wastewater involved. Electricity used for corporate offices or depots would be minor. That is, for the purpose of this evaluation it is reasonable to assume that electricity costs will reflect the increase or decrease in the volume of water and wastewater being pumped or processed.

Table 3-28 compares the growth factors used by Queensland Urban Utilities with the revised drinking water demand growth rates. Queensland Urban Utilities are not proposing to introduce volumetric charges for wastewater; subsequently there are no forecasts available. Instead, the growth in wastewater connections is presented for comparison.

Table 3-28 Electricity growth factors

	Queensland Urban Utilities growth rate used for electricity usage	Drinking water demand growth	Wastewater connections growth
FY12	2.0%	4.1%	1.9%
FY13	2.0%	4.1%	1.9%

Source: Queensland Urban Utilities Price Monitoring Information Return, Frontier Economics Assessment of projected demand

We consider the growth rate to be reasonable on the following basis:

- Opportunities exist for efficiency gains in processes due to the amalgamation of five councils
- The location of growth within particular water zones or wastewater catchments is not known. Growth may be located in areas with less energy intensive transfer and treatment requirements (less pumping stations, more efficient treatment plants), meaning that electricity demand will increase less than overall growth.
- The projection is conservative

For benchmarking of the price escalation two sets of data have been used. Under the Electricity Act 1994, the rate of change in the Benchmark Retail Cost Index (BRCI) is used to adjust notified electricity prices each year. Under delegated authority from the Minister, Queensland Competition Authority has released a final determination of the BRCI for FY09, FY10 and FY11. The Australian Bureau of Statistics Consumer Price Index for electricity in Brisbane is also used. Refer to Table 3-29.

Table 3-29 Comparison of electricity cost escalation indices

Year	Queensland Urban Utilities	BRCI	ABS CPI for electricity in Brisbane
FY09	-	5.38	11.6
FY10	-	11.82	8.3
FY11	13.30	13.29	15.5
FY12	2.50		
FY13	2.50		

Source: Queensland Urban Utilities Price Monitoring Information Return, Benchmark Retail Cost Index for Electricity, Australian Bureau of Statistics

Queensland Urban Utilities adopted price escalation for electricity in FY11 is consistent with both the BRCI and CPI for electricity and is considered reasonable.

However, the escalation of 2.5% for FY12 and FY13 are significantly below the market trend of 10-12% over recent years.

Queensland Urban Utilities purchases electricity on contestable market contracts and on standard tariff arrangements.

Contestable Market – Retail Contract Sites

The following points pertain to electricity supplied to Queensland Urban Utilities' major loads. These loads make up approximately 75% of the total expenditure on electricity.

- In all time-of-use categories, energy only charges in calendar year 2011 will be substantially lower than they are at present

- The Australian Energy Regulator has approved network rate increases for ENERGEX of 17% in FY 2011 and 6.8% in FY 2012 and FY 2013
- Decisions with regard to the percentage of GreenPower to be purchased in 2012 and 2013 have yet to be made

Regulated Tariff Market

Electricity supplied to Queensland Urban Utilities sites on regulated tariffs constitutes about 25% of the total electricity purchased.

Electricity cost increases in FY 2011 were in line with the BRCI Cost Escalation index of 13.29%. The FY 2012 and FY 2013 indices, which are based on energy price trends and network charge projections, while still unknown are not expected to be of the same order of magnitude as in FY 2011.

Consider the proportion of energy supplied through the contestable market and regulated tariff market, and Queensland Urban Utilities future decisions regarding GreenPower we consider a reasonable cost escalation beyond FY11 is 7.6%. This is calculated as 6.8% cost escalation on electricity supplied through the contestable market (75% of total electricity requirements) and 10.0% cost escalation for electricity supplied through the regulated tariff market (25% of total electricity requirement).

Conclusion

The electricity cost indices and growth factor used by Queensland Urban Utilities to calculate electricity costs for FY11 are considered reasonable. Cost escalation estimated for FY12 and FY13 are below market trends and forecast expenditure is revised to include a cost escalation of 7.6%.

Chemicals

Chemicals are used by Queensland Urban Utilities to treat drinking water before deliver delivery to customers, and for wastewater before being discharged into the environment. The need for chemical use is dictated by drinking water standards and compliance with operational licenses for discharge of wastewater.

Queensland Urban Utilities has noted in its submission the supply of chemicals in the register of Third Party Transactions. This contract was inherited from the former water Council water businesses that were amalgamated to create Queensland Urban Utilities.

Expenditure on chemicals is forecast to increase from $5.2M in FY11 to $5.8M in FY13. In developing these forecasts Queensland Urban Utilities have used their general price escalation index of 2.5%.

For benchmarking of the price escalation two sets of data have been used.

- The producer price index (PPI) for chemical and chemical product manufacture sourced from the Australian bureau of Statistics

- The consumer price index (CPI), weighted average of eight capital cities also produced by the Australian Bureau of Statistics

Refer to Table 3-30.

Table 3-30 Chemical cost escalation indices

Year	Queensland Urban Utilities	PPI	CPI
FY08	-	6.3%	4.5%
FY09	-	12.9%	1.5%
FY10	2.5%	-20.0%	3.1%
FY11	2.5%		
FY12	2.5%		

Source: Queensland Urban Utilities financial Model, Australian Bureau of Statistics

The producer price index is very volatile and hence does not provide a reliable indication of market trends source to forecast chemical costs in the short to medium term. It is also recognised that the index collates data for a wide range of chemical manufacture, not just those specific to the water industry. Hence a direct comparison of Queensland Urban Utilities' proposed cost escalation with the PPI has not been made.

We have provided further comment on the appropriateness of Queensland Urban Utilities' general cost escalation index in a preceding section of this report.

Transport costs are recognised as a significant cost component for chemicals. The amalgamation of the five former council water businesses increases the purchasing power of Queensland Urban Utilities with potential efficiency gains or reduction in cost through economies of scale through the consolidation of supplier contracts and purchasing power. Indeed, economies of scale are one of the drivers behind the water reforms themselves. These expected costs savings are not explicitly incorporated into the forecast expenditure.

Queensland Urban Utilities has negotiated a chemical supply contract that covers all districts. This contract is for three years initially and with a rise and fall clause based on CPI. Therefore, efficiency gains through increased purchasing power have already been realised.

Conclusion

In our assessment we consider the proposed chemical costs are reasonable. We accept the cost escalation index for chemical costs at 2.5% for FY12 and FY13.

4.4.8.3. Impact from revised capital expenditure and growth

Revised capital expenditure

The revised capital expenditure programme will have an impact on the operating expenditure budget. The impact on operating expenditure from each of the capital expenditure classifications are briefly summarised below.

- Growth –capital expenditure associated with a new asset or increasing the capacity of existing assets would expect to increase operating costs due to the addition of new assets and processes
- Renewal – capital expenditure associated with replacing existing assets and generally maintaining service levels would expect to yield a reduction in operating costs
- Improvement – capital expenditure associated with improving service levels will generally lead to an increase in operating costs
- Compliance – capital expenditure associated with meeting legislative obligations will generally require an increase in operating costs

At this stage we do not have sufficient data to provide the definitive financial impact that the exclusion of capital expenditure projects will have. However, when compared to the overall size of the water and wastewater networks the excluded capital works projects are very small. It is therefore reasonable to assume that the impact to the operating expenditure budget for FY11 to FY13 will be very minor.

As stated in the section on capital expenditure above, the reclassification of some smaller capital expenditure projects as operating expenditure may also be worth investigating in the future.

Revised growth

We have reviewed the *SEQ Interim Price Monitoring: Assessment of Projected Demand* (Frontier Economics, 2010). We note that this is the draft version of this report, and that subsequent changes may be made to the report's recommendations. We have contacted Frontier Economics to determine whether these recommendations are likely to be updated. At the time of writing, Frontier Economics was not able to confirm whether or not their recommendations would change following review of their draft report.

As stated by Frontier Economics "the outcome of demand forecasting is a set of projections upon which capital and operating expenditure requirements are determined".

One of Frontier Economics key recommendations is to increase the predicted properties connected to water and wastewater services in line with PIFU data. These increases are predicted by activity (water, wastewater) geographic area (eg Brisbane, Ipswich) and by type (residential and business). For Queensland Urban Utilities the changes are the most significant – up to 7%, with a recommended increase of 20,000 properties for drinking water in 2013 and a recommended increase of 5,000 properties for wastewater. These increases have implications for capital expenditure and volumetric-based operating expenditure.

In addition, Frontier Economics has made several comments regarding the consistency of short and long-term forecasts. Frontier Economics states "From consultation with Queensland Urban Utilities Frontier understands that

Queensland Urban Utilities treats both short-term demand forecasting and long-term demand forecasting as separate and unrelated undertakings. Specifically it adopts several different assumptions between the two, the most important being that it assumes a higher per person per day consumption level for long-term forecasting than it does for short-term forecasting.

It is logical to assume that the result of this is the recommended increase in demand would be that operating expenditure that is driven by volume (ie bulk water, electricity and chemical) would also have to increase.

We have revised the Queensland Urban Utilities Information Requirement Template to account for the revised growth as determined by Frontier Economics.

4.4.8.4. Expenditure not considered reasonable

From our analysis of Queensland Urban Utilities operating costs for FY11 to FY13 we have identified that electricity costs are not considered reasonable in that they represent an under estimate of likely future costs.

4.4.8.5. Information systems and future returns

The ability to allocate data to the appropriate categories is primarily a function of the supporting systems of Queensland Urban Utilities. Through a service agreement, the Brisbane City Council provides Queensland Urban Utilities with payroll, procurement, job costing, asset management, sundry debtors and cash management. The following table (Table 3-31) outlines the separability of its current data.

Queensland Urban Utilities have stated that the disaggregation of costs and allocation of joint costs within councils and tight timeframes were the major issues with providing the data down to the low level cost categories required by the QCA. The systems contribute to the difficulty but given time many of these issues can be addressed if appropriate being mindful of the nature of the business and the level of benefits of separation.

Queensland Urban Utilities has conveyed to the QCA that separation of costs at the level requested would not be available and in the case of separation by district was arbitrary and was not an appropriate method for separating costs. This point was raised in the written submission:

> *"The QCA has also requested data at the district level based on the old council boundaries. Queensland Urban Utilities has supplied information as requested. It is strongly recommended that we review the value of continuing to be constrained by old council boundaries".*

Table 3-31 Current separability of data by service categories

Activity	Service	Revenue	Operating expenses
Water	Drinking water - Potable water supplies to all customer classes.	Yes	Yes
	Other core water - Queensland Urban Utilities has no other core water services.	N/A	
	Aggregate non-core water - Sundry services, such as water	Yes	

Activity	Service	Revenue	Operating expenses
	connections, water meter testing, special meter reads and water efficiency management plan assessment.		
Wastewater	Wastewater via sewer - Domestic strength wastewater from residential and non-residential customers and trade waste and recycled water where they are not currently separable.	Yes	Yes
	Trade waste - Trade waste where currently separable from wastewater via sewer.	Yes	
	Other core wastewater - Recycled water where currently separable from wastewater via sewer.	Yes	
	Aggregate non-core wastewater - Sundry services, such as discharge of septic tanks, sewer connections and garbage grinders.	Yes	
	Non-regulated - consultancy, connection design and private plumbing works.	Yes	Yes

Queensland Urban Utilities' systems are noted as mature, it is expected that these systems will have to be further refined in the future to ensure the Authority's requirements can be met. Particular reference is made to the need to align systems with the inputs required for the Authority's Information Template.

4.4.9. Summary of analysis of operational expenditure for Queensland Urban Utilities

The following key conclusions have been made from the analysis of Queensland Urban Utilities' operational expenditure forecast:

- When considered in aggregate, Queensland Urban Utilities' operating costs for water and wastewater services are considered reasonable from FY11 to FY13. The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs. No significant change in the geographic allocation of operating expenditure was identified.
- The labour cost indices and growth factor used by Queensland Urban Utilities to calculate employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.
- Queensland Urban Utilities' adopted general cost escalation of 2.5% for corporate costs is seen to be lower than the average actual CPI over the last five years, but nonetheless a reasonable estimation. No revisions to the Information Requirement Template for Corporate Costs are proposed.
- The electricity cost indices and growth factor used by Queensland Urban Utilities to calculate electricity costs for FY11 are not considered reasonable. Cost escalation estimated for FY12 and FY13 are below market trends and forecast expenditure is revised to include a cost escalation of 7.6%.
- Queensland Urban Utilities adopted cost escalation of 2.5% for chemicals is reasonable.

Our additional findings are as follows:

- The operational expenditure budget process used by Queensland Urban Utilities represents good industry practice.
- The lack of highly disaggregated data available from Councils has limited that degree of comparison that can be done with historical expenditure. Many costs, such as corporate costs and retail costs, were previously aggregated under generalised Council accounts. The analysis undertaken has largely been on whether appropriate growth factors and cost escalation indices are applied. Queensland Urban Utilities' operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

4.4.10. Proposed revised template

The template was amended to incorporate the conclusions from this analysis in addition to the revised demands as reported by Frontier Consulting.

4.5. Overall summary for capital expenditure and operational expenditure

In summary we have found Queensland Urban Utilities submission to the Authority to be substantially complying.

We have identified a representative sample of 15 projects capital expenditure projects for review. Of this sample, we have assessed 11 projects against the Authority's definitions of prudency and efficiency, including the standards of work, scope of work and the costs. Of this sample, the majority of the capital expenditure for the 2010/11 financial year is prudent and efficient.

The only projects which fall into the Authority's definition of not prudent and efficient are the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn, due to commence in 2011/12 and the Lang Parade Wet Weather Pump Station, due to commence in 2012/13. It is recommended that these projects are removed from the capital works budget.

For the majority of rolling programs, insufficient information was provided to assess the projects beyond the 2010/11 financial year. Queensland Urban Utilities accepts that for some rolling programs, the exact quantum of required investment in 11/12 onwards is still in the process of being refined. Queensland Urban Utilities has requested that the funding for these three programs be retained to allow the continuation of the alignment and optimisation process currently underway. As Queensland Urban Utilities goes through the 2011/12 budget process, we understand that detailed planning will be undertaken to justify the proposed levels of investment within the rolling programs and that level of funding will be sought.

We believe that the level of information provided for this review is in line with the context of the newly formed Entity, whereby Queensland Urban Utilities is undertaking a process of aligning the established prudent and efficient policies/procedures/programs from the larger amalgamated service areas across the organisation. In future, it is recommended that further information is provided to identify the process by which projects are selected and prioritised and to identify how the quantum of work was identified. As such, we recommend that these programs are further reviewed before approval.

We have noted that standards of service and asset design have carried through from the former Council water businesses. Work is underway to provide a consolidated set of service standards in the future.

Within the cost categories for operating costs that we have assessed the forecast budget for electricity was not seen as reasonable. We have increased the cost escalation for electricity in FY12 and FY13 to reflect current market conditions. Expenditure for bulk water has also been adjusted in line with the revised demand forecasts.

As can be expected with an organisation that have been in existence for a limited time not all policies and systems are currently in place and being implemented. Queensland Urban Utilities have largely adopted Brisbane Water procedures and are rolling these out across all of the geographic areas in which it operates. Presently, Brisbane and Ipswich being the largest partners in Queensland Urban Utilities have the most developed policies and procedures which are in agreement with industry good practice.

Importantly, for future submissions Queensland Urban Utilities will need to ensure that its financial recording and budget systems are aligned with the Authority's Information Requirement Template such that costs can be assigned against all of the cost categories. The procedures used to develop the operating expenditure budgets for Brisbane are comprehensive and represent good industry practice. However, these need to be applied across all geographies. Likewise, standard processes and equal rigour is needed when assessing capital expenditure projects across all five former Councils areas.

The amalgamation of five water businesses has also given rise to opportunities for gains through economies of scale. Indeed this is noted as one of the key drivers for water reforms. Through the consolidation of supplier contracts and greater purchasing power Queensland Urban Utilities will need to clearly show for future evaluations of efficiency and prudency for operating costs where this has generated cost savings have been realised.

In our assessment Queensland Urban Utilities have identified the current limitations and there are positive indications that adequate systems and policies will be in place to allow informed pricing and reporting for future determinations.

5. Allconnex Water

5.1. Introduction to Allconnex Water

Allconnex Water was established as a water retailer, taking over from the Gold Coast, Logan and Redland City Councils. Allconnex Water has 6,400 kilometres of water mains, 6,000 kilometres of sewer mains and is responsible for the delivery of water, wastewater and recycled water services for more than 850,000 people across these areas. Allconnex Water was formed on the 1 July 2010 and services the Gold Coast, Logan and Redland areas.

5.1.1. Formation of Allconnex Water

Several significant changes have occurred within recent history, which has resulted in the current formation of Allconnex Water. Our assessment of the capital and operational costs is cognisant of these recent developments, and the influence of these on the availability of information and the consistency of policies and procedures within these Entities.

Council amalgamations

Commencing in 2007, an extensive Local Government Reform process was undertaken. As a result of this process in 2008, several councils were amalgamated and in some cases council boundaries were redefined. An example of this is the Gold Coast local government area. In 2008, the Beenleigh-Eagleby region on the Gold Coast's northern border was transferred to Logan City.

Water Reform

Following the Water Reform three new council-owned distribution and retail Entities commenced operation. These Entities were formed by amalgamating various council based and owned water utilities into three larger water Entities. These water Entities now own the water and wastewater distribution infrastructure and sell water and wastewater disposal services to customers in their respective areas. Allconnex Water is the Entity for the southern area, servicing the Gold Coast, Logan and Redland areas.

5.2. Structure of Report

The remainder of this chapter of the report, detailing the assessment of capital and operating expenditure for Allconnex Water is structured as follows:

- Section 5.3 – Overview and detailed assessment of the *prudency* and *efficiency* of Allconnex Water's capital expenditure for FY11 to FY13
- Section 5.4 – Overview and detailed assessment of the *reasonableness* of Allconnex Water's operating expenses for FY11 to FY13
- Section 5.5 – Overall summary of finding from the assessment of capital and operating expenditure.

5.3. Capital expenditure

Allconnex Water has provided information on their capital program within its submission to the Authority in response to the Information Request, including:

- A completed Information Requirement Template
- Supporting documentation, including a written submission, *Allconnex Water Price Monitoring Submission 2010-11* (Allconnex Water, Version 3, 2010) and other documents.

A full list of information presented to the Authority is presented in Appendix B.1.

5.3.1. Overview of submission to the Authority

The following sections identify the magnitude and allocations of:

- Actual capital expenditure costs from 1 July 2008 to 30 June 2010
- Forecast capital expenditure from 1 July 2010 to July 2013.

5.3.1.1. Capital expenditure from 1 July 2008 to 30 June 2010

We have reviewed Allconnex Water completed Information Requirement Template for Capital Expenditure from 1 July 2008 to 30 June 2010 and supporting documentation. Actual capital costs have been provided from the three council areas that now comprise Allconnex Water for the 2008 and 2009 financial years. We note that the costs from 2009 have not yet been audited.

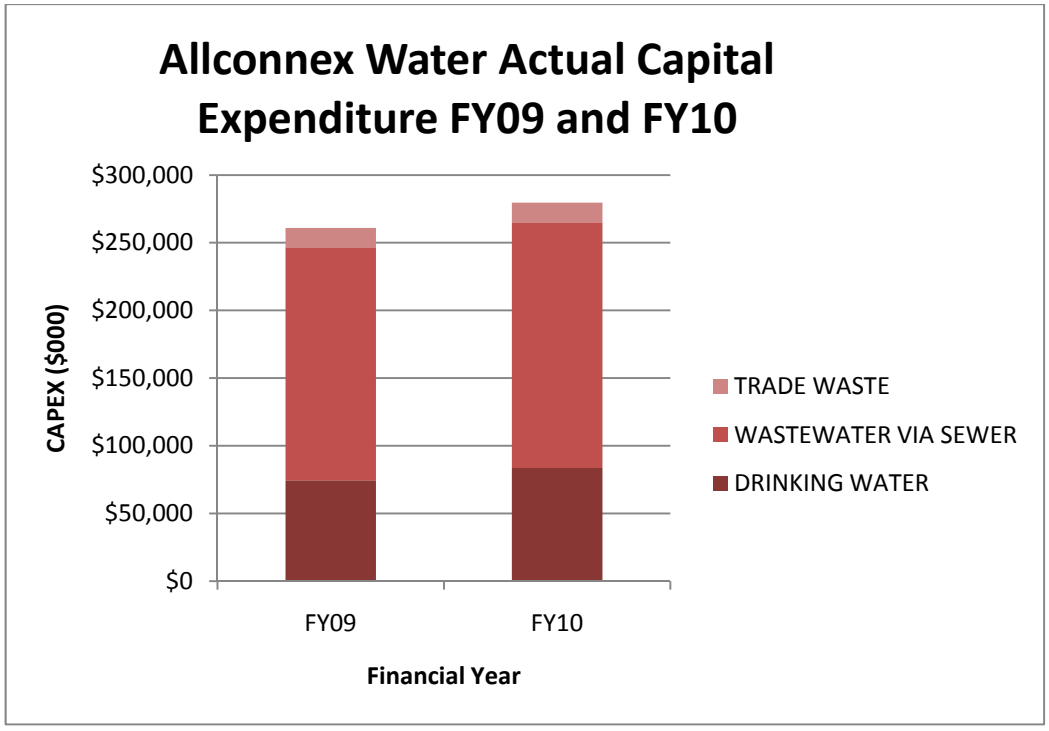
Within completed Information Requirement Template, actual costs have been assigned to three categories, “Drinking Water”, “Trade Waste” and “Wastewater via Sewer”.

Actual costs have not been allocated to the other categories shown below.

- Other core water services
- Aggregate non-core water services
- Trade waste
- Other core wastewater services
- Aggregate non-core wastewater services

We consider it likely that data has not previously been collected within these categories by the councils previously providing the regulated services for the reasons outlined above and as such, Allconnex Water may not be in a position to populate these categories with data.

Actual capital expenditure was assigned to three activities within the Information Requirement Template: “Drinking Water”, “Trade Waste” and “Wastewater via Sewer” as shown in Figure 4-1. In addition, $2.3 million was assigned to “Aggregate Non-Regulated Services”.



Source: Allconnex Water Information Requirements Template

- **Figure 4-1 Allconnex Water actual capital expenditure for FY09-FY10 by activity**

Comparison with Council financial accounts

The Authority is required to accept as prudent actual capital expenditure as included in relevant council's financial accounts from 1 July 2008 to 30 June 2010.

Actual capital costs for the 2008/09 and 2009/10 financial years have been compared to the supporting documentation provided by Allconnex Water.

There are some differences between the values presented in the Authority template and those in the supporting documentation, as shown in Table 4-1.

- **Table 4-1 Allconnex Water - Comparison of capital expenditure costs with supporting documentation**

Geographic Area	Information Requirement Template capital expenditure Data 2008/09	Supporting Documentation 2008/09	Document	Difference	Comment
Gold Coast	223,617,000	229,862,000	1.GCW_2009_FINANCIAL_STATEMENTS.XLS	-6,245,000	F-63 Capital works in progress.
Logan	34,356,230	36,098,000	15. Logan NWI Reporting 0809.XLS	-1,741,770	Cell 204 combined capital expenditure for water and Wastewater
Redlands	5,045,000	3,618,000	4. Redland Annual Report 2008-09.zip	1,427,000	Page 83 of the Annual report

We engaged with Allconnex Water to gain an understanding of these costs differences. Our understanding of the differences is as below:

- For the Gold Coast district the amount in the supporting documentation includes capital works in progress.
- For the Logan district the differences in data is due to the calculation of capital expenditure after the supporting document was produced.
- For the Redland district, the Authority template includes capital items from the 2008-2009 year, while the capital expenditure in the supporting documentation is the net capital expenditure. The difference is the loss on disposal of assets in this year.

We consider these costs to be of the right order of magnitude and note that they are lower than would be suggested by the supporting documentation.

As the 2009/10 financial year accounts have yet to be finalised, Allconnex Water has only been able to provide limited information for the 2009/10 financial year. Allconnex Water has stated that

> *"audited financial statements will not be available until late October. The stakeholder Councils [will] provide this information once the audit report was received."*

Although beyond the timescales of our commission under this interim pricing review, we recommended that these values are reviewed again once the audited council financial accounts are available.

Establishment costs

The Authority is required to accept as prudent all allowable establishment costs as advised by the Minister for Natural Resources, Mines and Energy and Minister for Trade.

Establishment costs are defined by the SEQ Interim Price Monitoring Guideline for Templates for 2010/11 as:

> *"the costs involved in establishing the Entities. Criteria for these costs will be advised by the Queensland Water Commission".*

It is understood that a report is due to be produced by Ernst and Young for the Queensland Water Commission regarding allowable establishment costs. At the time of writing this report, only initial information is available regarding these costs. A letter from the Queensland Water Commission to the Authority dated 12 August 2010 states that

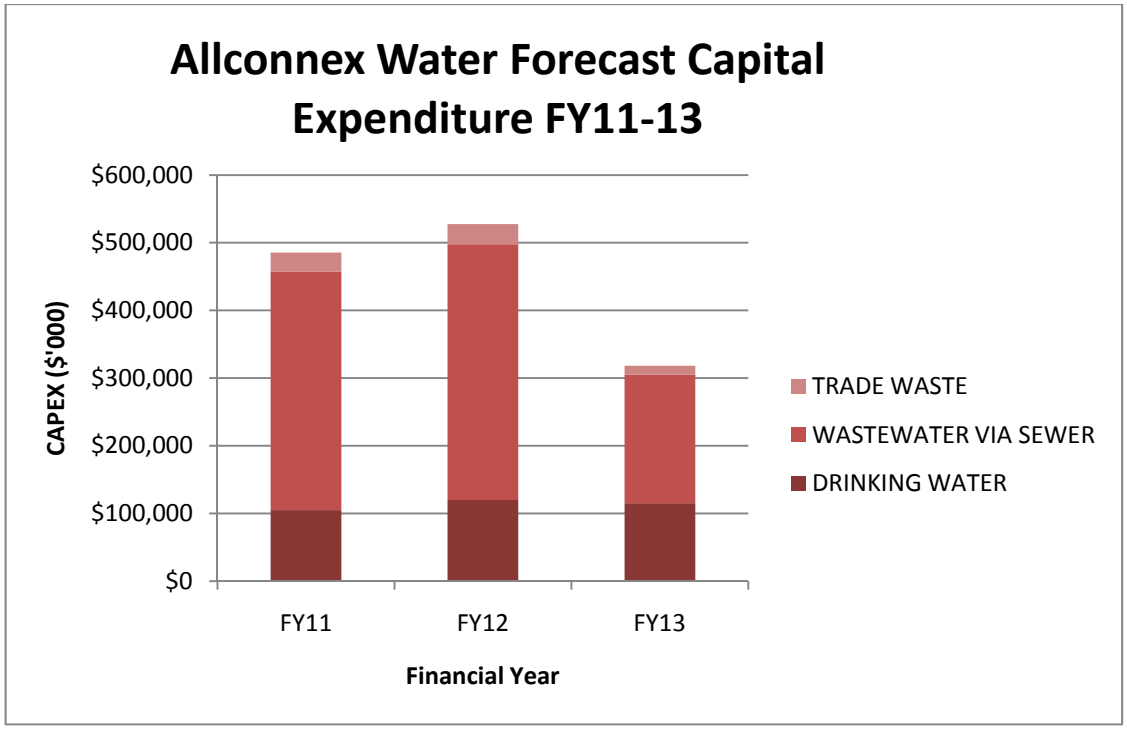
> *"At this time no recommendation was made to the Minister for his approval".*

Without the advice from the Queensland Water Commission it has not been possible to identify any establishment costs that are not approved.

5.3.1.2. Capital expenditure from 1 July 2010

The Ministerial Direction also requires the Authority to review the prudency and efficiency of capital expenditure for inclusion in the RAB from 1 July 2010.

In its submission Allconnex Water proposed capital works program of approximately $1,334 million for the interim price monitoring period (from 1 July 2010 to July 2013). Of this $1,334 million, water accounts for $340 million and wastewater accounts for $920 million, as shown in Figure 4-2.



Source: Allconnex Water Information Requirements Template. Note: Capital expenditure is presented on an as expensed basis.

- **Figure 4-2 Allconnex Water forecast capital expenditure for FY11-FY13 by activity**

The figures for each financial year are presented in Table 4-2.

- **Table 4-2: Forecast capital expenditure by activity ($000s)**

Activity	2010/11	2011/12	2012/13	Total
Water	$105,140	$119,817	$115,208	$340,164
Wastewater	$351,919	$377,900	$189,743	$919,562
Trade Waste	$28,391	$29,800	$13,376	$71,568
Aggregated Non-Regulated Wastewater Services	$1,294	$554	$835	$2,684
Total	$486,744	$528,072	$319,162	$1,333,977

Source: Allconnex Water Information Requirements Template. Note: Capital expenditure is presented on an as expensed basis.

To comply with the Authority's Required Information Template, Allconnex Water assigned the increase in capital works to the following cost drivers: growth, renewal, improvement and compliance.

In respect of review of CAPEX as being prudent and efficient, we understand from the *SEQ Interim Price Monitoring Information requirements for 2010/11* (QCA, July 2010), that appropriate cost drivers, and associated capital expenditure, are as described below:

- Growth – Capital expenditure associated with increasing the capacity of assets or construction of new assets, to meet growth in demand, or to provide additional security of supply should be included in growth
- Renewal of existing infrastructure – Capital expenditure associated with replacing assets and generally maintaining service levels should be included in renewal of existing infrastructure
- Improvements – Capital expenditure associated with improving service levels and reliability to meet customer preferences should be included in improvements
- Compliance – Capital expenditure associated with meeting price monitoring or legislative obligations should be included in compliance

Of the $1,334 million, $1,061 million is for capital expenditure associated with growth, $239 million associated with renewal of existing infrastructure and $34 million with compliance, as shown in Table 4-3.

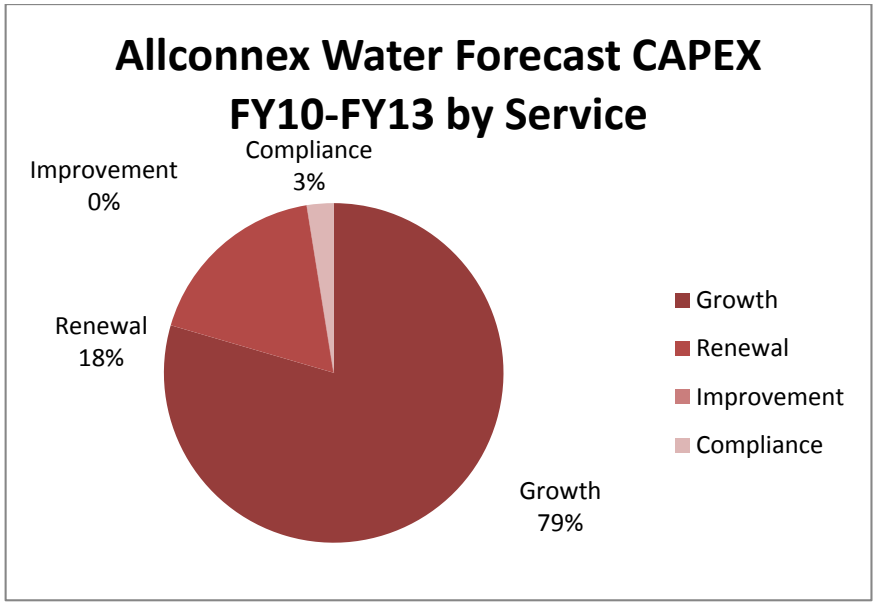
Table 4-3 Forecast capital expenditure by project driver ($000s)

Project Driver	2010/11	2011/12	2012/13	Total
Growth	372,713	445,254	242,827	1,060,793
Renewal	87,903	79,411	71,998	239,312
Improvement	0	0	0	0
Compliance	26,128	3,407	4,337	33,872
Total	486,744	528,071	319,162	1,333,977

Source: Allconnex Water Information Requirements Template. Note: Capital expenditure is presented on an as expensed basis.

A breakdown of the capital expenditure per driver (growth, renewal, improvement, compliance) is represented graphically in Figure 4-2. The largest cost driver is growth, followed by renewals. Compliance represents 3% of the capital expenditure for the price monitoring period.

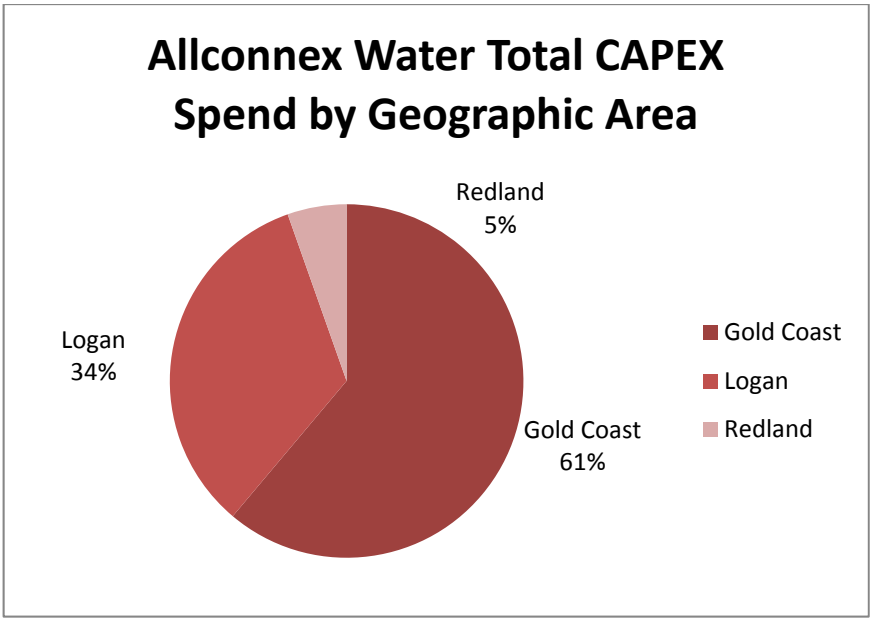
No projects have been classified as “Improvements” as the previous council classifications did not use this driver. This is expected to change in future.



Source: Allconnex Water Information Requirements Template. Note: Capital expenditure is presented on an as expensed basis.

- **Figure 4-3 Allconnex Water budgeted capital expenditure for FY11-FY13 by service category**

The split of the capital expenditure between the three geographic areas is show in Table 4-4 below and represented graphically in Figure 4-4. Gold Coast has the largest proportions of the capital expenditure, over 60%, with Redlands comprising 5% of the total capital expenditure for the price monitoring period.



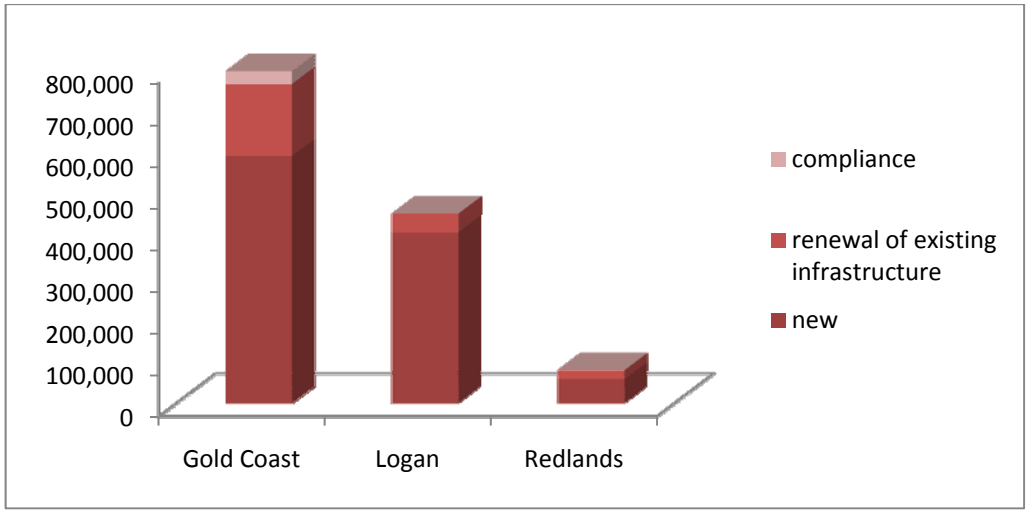
Source: Allconnex Water Information Requirements Template. Note: Capital expenditure is presented on an as expensed basis.

- **Figure 4-4 Allconnex Water budgeted capital expenditure for FY11-FY13 by geographic area**

- **Table 4-4 Forecast capital expenditure by geographic area ($000s)**

Geographic Area	2010/11	2011/12	2012/13	Total
Gold Coast	344,156	333,886	119,902	797,944
Logan	117,387	166,153	172,372	455,912
Redlands	25,201	28,032	26,888	80,121
Total	488,755	530,083	321,175	1,333,977

The above information is summarised in Figure 4-5, showing the split of these capital costs between the three geographic areas for each of the cost drivers.



Source: Allconnex Water Information Requirements Template. Note: Capital expenditure is presented on an as expensed basis.

- **Figure 4-5 Combined capital expenditure value (FY11, FY12 and FY13) – Spend by geographic area**

In its submission Allconnex Water noted that the majority of the works across the region will be in wastewater transport and treatment assets across the region. Table 4-5 lists some of these major capital expenditure projects for each geographical area.

- **Table 4-5 Major capital expenditure projects ($ millions)**

Project	Project Cost 2010/11	Total Project Cost 2010-2013
Merrimac West WW Stage 2	$78.75	$238.64
Stapylton WWTP Stage 1	$31.50	$53.35
Potable Water Network - Developed Areas	$4.73	$19.75
CP Water Mains Enhancement	$7.37	$19.57
Chetwynd St Upgrade	-	$22.00
Southern Relief Sewer - Stage 1	$5.25	$27.58
Logan East - pressure and leakage mgt implem. Incl fire flow	$0.05	$11.35
Springwood Master Plan Area - Trunk Mains	-	$11.30
Point Lookout WWTP	$5.66	$12.26
Cleveland WWTP	-	$4.85
Retic - Backlog fire flow augmentation	$2.55	$7.18
Meter Replacement Program (REV)	$0.58	$1.18

5.3.2. Detailed Allconnex Water forecast capital expenditure review

The following section discusses the assessment of the proposed capital expenditure for Allconnex Water over the price monitoring period of 2010/11 to 2012/13. This section includes:

- An assessment of the adequacy of capital expenditure information provision, including:
  - The inclusion of expenditure on non commissioned assets
  - Processes for Cost Disaggregation
  - Indexation
- A description of the representative sample selection for capital expenditure projects
- A description of the method used to assess capital expenditure projects
- Commentary on business processes for Capital project option study, including:
  - Service standards
  - Capital expenditure planning and prioritisation
  - Comparison with good industry practice
  - Use of policies and procedures within representative sample selection
  - Recommendations for future policies and procedures
- The outcomes of the capital expenditure projects assessments

5.3.3. Adequacy of capital expenditure information provision

A review was undertaken of Allconnex Water's submission to the Authority and the completed Information Requirement Template return. The key points to note are as follows.

General

It is noted from the *Allconnex Water Price Monitoring Submission 2010-11* (Version 3, 2010) that Allconnex Water has acknowledged that there are information gaps. We understand that the current information template is Allconnex Water's first regulatory submission, and coincides with the business' first two months of operation only and hence such information gaps are to be expected at this stage of Allconnex Water's establishment. Allconnex Water states that they

> *"are currently integrating the legacy Council businesses, information systems, corporate policies and processes. Many of these policies have not yet been finalised, and will continue to be developed throughout 2010-11".*

As a result of that, Allconnex Water states that they:

> *"have been unable to provide all of the information requested by the Authority, or in some instances have provided data but in a different format from that specified, or level of data that is required by the Information Template".*

Allconnex Water states that they:

> *"will work during 2011-12 to develop its information systems and processes to inform future regulatory submissions.*
>
> *That said, Allconnex Water believes there is sufficient information, in coverage and quality, for the Authority to inform its prices monitoring role for 2010-11 and for the regulator to provide guidance and direction on its reporting requirements for 2011 -12 and 2012-13".*

Given the above, we consider that the level of response provided in the Information Template is appropriate for this interim price monitoring program.

Supporting documentation

A costed project list was provided, which identifies each project, the activity and the proposed timing of expenditure (ie costs per financial year). However limited information is provided on a project by project basis, in terms of cost drivers, scope or standard of works. No linkages have been provided to the underlying cost components such as unit rates, on-costs and contingencies and any other supporting materials such as consultant reports.

From discussions with Allconnex Water, we understand that a more complete project list is available which includes project descriptions and cost drivers. This was not reviewed during our assessment.

Required information template

Within Allconnex Water's completed Information Requirement Template, capital expenditure is allocated to "Drinking Water", "Wastewater via Sewer" and "Trade Waste" categories. This is consistent with Allconnex Water's submission *Allconnex Water Price Monitoring Submission 2010-11* (Version 3, 2010) where it is indicated that several categories are not used (as shown in Table 4-6).

Table 4-6 Summary of categories used

Summary of Service Category	Revenue	Volume	Costs/Assets
Drinking Water	Water	Water	All water costs and assets
Other core water services	Not used	Not used	Not used
Aggregate non-core water services	Other services relating to water	Not used	Not used
Wastewater via sewer	Wastewater	Wastewater	All wastewater/recycled water costs and assets, except trade waste
Trade waste	Trade waste	Trade waste	Trade waste
Other core wastewater services	Recycled water	Not used	Not used
Aggregate non-core wastewater services	Other services relating to wastewater	Not used	Not used

Source: Table 2.1, Allconnex Water Price Monitoring Submission 2010-11 (Version 3, 2010)

Within Allconnex Water's Information Requirement Template (QCA Information Requirements Templates_FINAL.xls) worksheet 5.6.1, costs associated with recycled water are included within the "Wastewater via Sewer" category. The Authority may wish to recommend that these costs are separated out as Allconnex Water has a substantial recycled water network and there is likely to be an alternative pricing strategy for recycled water. However, it may be difficult to separate recycled water and wastewater assets where there is not a direct supply of recycled water to a customer; for example, recycled water customers may draw supply from a release main from a wastewater treatment plant.

Within Allconnex Water's Information Requirement Template, worksheet 5.6.1, we note that the "Drinking Water", "Wastewater via Sewer" and "Trade Waste" categories have been substantially completed as described in the following. The following tables summarise the analysis of these categories within the completed Information Requirement Template. The left hand column shows the sub categories used within the "Drinking Water", "Wastewater via Sewer" and "Trade Waste" categories. Coloured cells highlight areas where no data is provided. The colour coding of these cells is explained below.

- **Table 4-7 Completion of data templates**

	Total Costs 2010/11 to 2012/13 ($000s)								
	DRINKING WATER			WASTEWATER VIA SEWER			TRADE WASTE		
	Gold Coast	Logan	Redlands	Gold Coast	Logan	Redlands	Gold Coast	Logan	Redlands
Reservoirs	7,436	16,764	53	-	15,628	-	-	910	-
Pump stations	5,572	5,784	-	42,774	50,616	10,768	3,654	2,946	1,197
Treatment	-	-	-	151,309	58,376	21,902	12,925	3,398	2,434
Associated telemetry and control systems	7,934	599	-	1,325	589	-	113	34	-
Meters	17,473	4,256	1,182	61	-	-	5	-	-
Billing systems	-	-	-	-	-	-	-	-	-
Corporate systems	-	-	-	-	-	-	-	-	-
Sundry Property, Plant and Equipments	47	-	-	44	973	-	4	57	-
Land	-	-	-	-	-	-	-	-	-
Buildings other than infrastructure housing	-	-	-	-	-	-	-	-	-
Distribution infrastructure not listed above	118,983	95,860	13,828	338,050	164,527	10,065	28,877	9,576	1,118
Support services	-	-	-	-	-	-	-	-	-
Establishment Costs	-	-	-	-	-	-	-	-	-
Other 2 [please specify]	-	-	-	-	-	-	-	-	-
Unallocated cash contribution	-	-	-	-	-	-	-	-	-

The cells that are colour coded green in Table 4-7 are expected not to be populated. For example there are expected to be no reservoir costs are associated with wastewater, no treatment costs associated with water (as Allconnex Water is not responsible for water treatment) and no establishment costs in 2010/11 onwards. In addition, the SEQ Interim Price Monitoring, Guideline for Templates for 2010/11 (Version 1.0, May 2010) states that "there should be no direct capital expenditure assigned to the "Unallocated cash contributions" asset class".

One unexpected item is for the Logan district, where there are reservoir costs are associated with wastewater (these are colour coded red). We have highlighted this issue with Allconnex Water. They have responded that these costs have been incorrectly allocated, and should be re-apportioned to the drinking water category. As such we recommend that the allocation of costs to this sub category is re-attributed to water.

The cells that are colour coded yellow in Table 4-7 indicate that data has not been disaggregated or that no projects are associated with this sub category. For example there appear to be no projects with "Associated telemetry and control systems" within the Redlands district. Allconnex Water has responded that Redland district has a telemetry project for the water supply system for 2010-11 which was incorrectly allocated to the mains asset class. It is recommended that this project is correctly coded to "Associated telemetry and control systems".

There is no capital expenditure allocated to corporate costs. However, within Table 7.1 of *Allconnex Water Price Monitoring Submission 2010-11* (Version 3, 2010) (reproduced in Figure 4-6 below) corporate costs have been disaggregated from water and wastewater costs. Within the Authority template these costs have been allocated to water and wastewater activities. A screenshot of Allconnex Water's completed Information Requirement Template for the Gold Coast district for Drinking Water is provided below. This is similar for all other 'Corporate Costs' sub categories. We recommend that the template is updated to reflect the disaggregated corporate costs within *Table 7.1* of *Allconnex Water Price Monitoring Submission 2010-11* (Version 3, 2010).

			Billing systems		0%					
			value of capex - new	$'000						
			value of capex - renewal of existing infrastructure	$'000						
			value of capex - improvements	$'000						
			value of capex - compliance	$'000						
			Total capital expenditure	**$'000**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	
			Corporate systems		0%					
			value of capex - new	$'000	0.0	0.0	0.0	0.0	0.0	
			value of capex - renewal of existing infrastructure	$'000	0.0	0.0	0.0	0.0	0.0	
			value of capex - improvements	$'000						
			value of capex - compliance	$'000	0.0	0.0	0.0	0.0	0.0	
			Total capital expenditure	**$'000**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	
			Sundry property, plant and equipment		0%					
			value of capex - new	$'000	42.3	18.8	47.3	0.0	0.0	
			value of capex - renewal of existing infrastructure	$'000	0.0	0.0	0.0	0.0	0.0	
			value of capex - improvements	$'000						
			value of capex - compliance	$'000	0.0	0.0	0.0	0.0	0.0	
			Total capital expenditure	**$'000**	**42.3**	**18.8**	**47.3**	**0.0**	**0.0**	

- **Figure 4-6 Extract of Allconnex Water's completed information requirement template for the Gold Coast district for drinking water**

As previously stated, there is no capital expenditure allocated to the "Improvements" cost driver as this category was not used within the previous council systems. This will change in future years.

There are several variations between Allconnex Water's written submission and the Allconnex Water's completed Information Requirement Template. Table 4-8 is sourced from *Table 7.1* of *Allconnex Water Price Monitoring Submission 2010-11* (Allconnex Water, 2010). Although the overall totals tally ($1.334 million), there are differences between the activity (water and wastewater) totals.

Table 4-8 Forecast capital expenditure by activity ($000s)

Activity	2010/11	2011/12	2012/13	Total
Water Distribution				
Growth	41,344	45,674	29,515	
Replacement	35,359	42,413	39,870	
Regulator Required	2,451	77	899	
Donated Asset	18,404	19,387	20,374	
Total Water Distribution	97,558	107,552	90,659	295,769
Wastewater				
Growth	285,592	341,568	125,728	
Replacement	51,254	36,443	31,299	
Regulator Required	23,678	3,330	3,348	
Donated Asset	10,074	10,648	11,203	
Total wastewater	370,597	391,988	171,699	934,284
Non-Regulated Services				
Growth	5	0	6	
Replacement	1,289	554	829	
Regulator Required	0	0	0	
Donated Asset	0	0	0	
Total Non-Regulated Services	1,294	554	835	2,683
Districts' Capital Expenditures				
Growth	326,941	387,242	155,249	
Replacement	87,902	79,410	71,998	
Regulator Required	26,129	3,407	4,247	
Donated Asset	28,478	30,035	31,577	
Total Districts' Capital Expenditures	469,450	500,094	263,071	1,186,987
Corporate Office				
Computer Software	14,354	27,976	56,000	
Computer Hardware	2,100	0	0	
Fixtures & Fittings	0	0	0	
Buildings	840	0	0	
Total Corporate Office	17,294	27,976	56,000	101,270

Activity	2010/11	2011/12	2012/13	Total
TOTAL ALL CAPITAL EXPENDITURES	486,744	528,070	319,071	1,333,885

Source: Table 7.1, Allconnex Water Price Monitoring Submission 2010-11 (Allconnex Water, 2010)

We understand that the difference between the total costs for each activity (water and wastewater) is due to the fact that corporate costs have been split out of these totals. As previously stated, it is recommended that these corporate costs are also split out in the Information Requirement Template provided by the Authority to ease future completion of the Information Requirement Template by the Entities.

In addition to the Information Requirement Template provided to the Authority, Allconnex Water provided a complete list of capital expenditure items and corresponding values. It is noted that this list correlates to the water and wastewater activity totals presented in Table 4-8.

For further detail on the information provided by Allconnex Water in the information return please refer to Appendix B.1.

Expenditure vs. Commissioning

The SEQ Interim Price Monitoring Framework Final Report states that:

> *"work in progress should be capitalised at the rate of return and included as capital expenditure once it is fully completed and able to contribute productive capacity to the system".*

Allconnex Water has allocated capital expenditure based on the year that the expenditure was/will be incurred rather than the year of commissioning. Whilst Allconnex Water notes that typical regulatory practice is to include in the RAB capital expenditure only when the relevant asset is commissioned and brought into service, they note that:

> *"In practice, this results in an NPV-neutral revenue outcome to the regulated services provider, since a WACC return on expenditure is 'capitalised' in a WIP account prior to commissioning (and the asset is brought into the RAB at a higher starting value at the commissioning date). For Allconnex Water specifically, and because of the use of a glide path approach to pricing determined using an NPV-neutral methodology, the timing of WIP capitalisation to the future RAB does not impact on customer prices" (Section 10.1 MAR calculation methodology, Allconnex Water Price Monitoring Submission 2010-11 (Allconnex Water, 2010)).*

Our view is that in good industry practice capital expenditure should be capitalised (and hence included in the RAB) when the asset for which the capital expenditure occurred can reasonably be expected to start making a contribution to a regulated service delivery. As such the project should be commissioned (or at least that part of the project for which in increase in RAB is claimed should be commissioned and contributing to service delivery) before the expenditure is capitalised and claimed as part of the RAB.

It is recommended that for future returns Allconnex Water only includes capital expenditure when the asset (or relevant portion of the asset) was commissioned. In absence of anticipated commissioning dates for each of Allconnex Water's 352 projects, we were unable to make these changes to the Authority templates.

Indexation

Capital costs in Allconnex Water's forecasts have been escalated at 5% per annum. Allconnex Water has based this on the ABS construction indices, for the following reasons:

> *"Construction costs in general have continued to rise faster than consumer price index (CPI). This trend is expected to continue, with construction costs/unit rates expected to increase even where Allconnex Water's capital program is outsourced to the private sector through competitive tender or delivered through alliances with costs confirmed by independent verification.*
>
> *"Since ABS has collected data on construction indices, the average annual increase from March 1999 to March 2010 was 5.0% compared with 3.3% for CPI".*

To maintain consistency for each of the Entities, we recommend that a consistent indexation rate is used. A discussion of the use of CPI as an appropriate cost escalator for capital costs and the use of other relevant indices is included in Section 2.6.

5.3.4. Summary of data adequacy

In summary, Allconnex Water has provided a submission which complies with the Authority's guidelines excepted as noted in the following. The Information Required Template was completed for the key activities (water and wastewater); however disaggregation of data into all of the potential sub categories has not been carried out, particularly for corporate costs. In addition there appear to be a few errors within this spreadsheet regarding the misallocation of costs to sub categories.

A project list was provided. This project list identifies each project, the activity and the proposed timing of expenditure (ie costs per financial year). However limited information is provided on a project by project basis, in terms of cost drivers, scope or standard of works. No linkages have been provided to the underlying cost components such as unit rates, on-costs and contingencies and any other supporting materials such as consultant reports. Based on discussions with Allconnex Water, we understand that a more complete project list is available which includes project descriptions and cost drivers. This was not reviewed during our assessment.

We would stress that these relatively minor issues should be considered within the overall context of the water reforms, where Allconnex Water has only been in existence for two months and that the list of projects and supporting information was produced from information from three separate councils.

Recommendations for data adequacy

The development of a detailed project list, incorporating project scope and standard of works is recommended. This detailed list should then be used to allow the disaggregation of data into the Authority's categories, including corporate costs, support services and billing systems, and appropriate cost drivers.

5.3.5. Capital project sample selection

We were commissioned by the Authority to review the prudency and efficiency of a representative sample of Allconnex Water's capital expenditure projects.

A sample of 13 projects was selected for the detailed review of prudency and efficiency. Ten of these projects were selected based on the highest cost water and wastewater projects for each geographic area. In addition a median value project was selected from each geographic area to allow greater representation of the lower value projects, which are less likely to have been reviewed in detail in the past. This median value project was selected by taking a project with a value close to the median value for each geographic area with capital expenditure within the 2010/11 financial year.

One of the projects within this sample, Stapylton WWTP Stage 1, has not been reviewed by us, as there is a perceived conflict of interest given our prior involvement with this project. It is understood that this project was reviewed by a third party and hence the analysis of this project is not reported here.

Given that one project in the sample list had been previously reviewed by an alternative consultant, Cardno, as part of their "Review of Prudency and Efficiency of Capital Expenditure" for Allconnex Water Logan District, the Authority has instructed us to adopt the conclusions of the Cardno report as part of our assessment. In its report Cardno stated:

> *"We cannot conclude that the $5m included in 2011/12 and $5m in 2012/13 for water mains in the Springwood Master Plan Area is prudent given the absence if detailed planning and the uncertainty over timing" (Cardno, September 2010).*

The Authority has contacted Allconnex Water separately about this project which is included in the project review sample below.

The list of capital expenditure programs reviewed is shown in Table 4-9, Table 4-10 and Table 4-11.

- **Table 4-9 Allconnex Water capital expenditure projects reviewed by SKM**

Area	Project Description	Activity	Cost ($000s)	
			FY 2010/11	Total 2010/11 to 2012/13
Gold Coast	Merrimac West WW Stage 2	Wastewater	78,750	238,640
Logan	Southern Relief Sewer - Stage 1	Wastewater	5,250	27,576
Logan	Chetwynd St Upgrade	Wastewater	3,000	22,000
Gold Coast	Potable Water Network - Developed Areas	Water	4,725	19,747
Redland	Point Lookout WWTP	Wastewater	5,656	12,264
Logan	Provisions for AC Reticulation Main Replacements	Water	1,785	9,017

Area	Project Description	Activity	Cost ($000s)	
			FY 2010/11	Total 2010/11 to 2012/13
Redland	Retic - Backlog fire flow augmentation	Water	2,555	7,184
Redland	Cleveland WWTP	Wastewater	0	4,854
Gold Coast	Gravity&Rising_AUG_GuineasCkRd	Wastewater	1,083	1,083
Logan	Treatment Plant Future Misc Cap Items Estimates	Wastewater	105	615
Redland	Pump Station Number 61	Wastewater	53	230

- **Table 4-10 Allconnex Water capital expenditure projects reviewed by Halcrow**

Project ID	Project Description	Activity	Cost ($000s)	
			2010-11	Total 2010-13
Gold Coast	Stapylton WWTP Stage 1	Wastewater	31,500	53,346

- **Table 4-11 Allconnex Water capital expenditure projects reviewed by the Authority**

Project ID	Project Description	Activity	Cost ($000s)	
			FY 2010/11	Total 2010/11 to 2012/13
Logan	Springwood Master Plan Area - Trunk Mains	Water	0	11,301

Together, these projects account for 33% of the capital expenditure costs for 2010/11 to 2012/13. Table 4-12 details the percentage of capital costs represented by the sample for each geographic area and activity.

- **Table 4-12 Allconnex Water sample as a percentage of total capital costs**

Geographic Area	Wastewater activity	Water activity	Total
Gold Coast	51%	17%	42%
Logan	17%	19%	17%
Redland	43%	72%	39%
Total	40%	20%	33%

Table 4-13 details the number of projects considered for each geographic area.

- **Table 4-13 Allconnex Water sample as several projects by geographic area and activity**

Geographic Area	Wastewater activity	Water activity	Total
Gold Coast	3	1	4
Logan	3	2	5
Redland	3	1	4
Total	9	4	13

The above sample captures in excess of 10% of capital expenditure by value in each activity and geographic area over the forecast period. The sample captures 28% of all capital expenditure in 2010/11 and 33% of all capital expenditure in the forecast period from FY11 to FY13.

Conclusion

A sample of 13 projects was selected and agreed with the Authority for review. The sample captures over top ten per cent of capital expenditure by value in each activity and geographic area over the forecast period and includes three lower value projects. SKM and the Authority consider that the sample size chosen is reasonably representative of the capital works program of Allconnex Water.

Our assessment methodology is discussed in the following section.

5.3.6. Capital project assessment method

The capital expenditure project assessment was carried out in three stages:

- Stage 1 – Identification and Collation of Information
- Stage 2 – Adequacy of Information
- Stage 3 - Assessment of Prudency and Efficiency

These stages are describes as below.

Stage 1 – Identification and collation of information

Following the selection of a representative sample of projects, Stage 1 involved the identification of information required for the review. A Request for Information (RFI) was issued for each project indicating the type of information required. An example of an RFI is shown below.

Table 4-14 Example of RFIs for Allconnex Water projects

Project Name	Project ID	Overall Cost 2010-13 ($000s)	Information Request
Merrimac West WW Stage 2	RFI 004	238,640	▪ Previous reports and studies, eg planning reports, feasibility studies, concept reports, detailed design reports. ▪ Detailed original cost breakdown and any variations for any initiated works to date. ▪ Details of any independent cost reviews (eg TOC Reviews) ▪ Proposed capacity and sizing of all main process units. ▪ Description of scope of works including all civil, mechanical, electrical and process works ▪ Description of any contingencies used and whether current costs include detailed design, construction and commissioning or any particulars such as site specific issues such as flood design, stormwater treatment, decommissioned elements and handover agreements.
Potable Water Network - Developed Areas	RFI 006	19,747	▪ Previous reports and studies, eg planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. ▪ Details of any units rates used for costings. ▪ If multiple projects - breakdown of individual projects, including proposed sizes, lengths, capacities and design life and expectations, including individual cost estimates (if available) ▪ Justification for projects, eg existing system performance, network capacity assessments, population growth.

Stage 2 – Adequacy of information

For each project the adequacy of information was assessed against the Authority's requirements. In line with the Authority's *Final Report on SEQ Interim Price Monitoring Framework*, we have considered the adequacy of information provided on the following items for assessing the prudency and efficiency of the proposed capital expenditure.

- Scope and Costs
- Appropriate Category Applied (growth, renewal, improvements, compliance)
- Standards of Service

A template was developed to record the project information received and to assess the information for adequacy using the above categories.

Where the information received did not meet the requirement for assessment, further RFIs were issued to gain this information.

During this process, we engaged with Allconnex Water to discuss the list of project under review and Allconnex Water's general policies and procedures for identifying and prioritising capital expenditure projects. The outcome of this engagement is discussed further in Section –.

We consider it important to note that the process for collection and reporting of data be considered within the overall context of the Water Reform process. At the start of this activity, Allconnex Water had only been established for two months and many staff members are still in the process of adjusting to new roles, policies and procedures, and in some cases, even new locations. Much of the data required for review was produced by one of the three of the previous councils, for which the recording of data for such purposes may not have been within the normal course of business activity, adding an additional layer of complexity.

We are also cognisance of the fact that due to the tight timeframes of this stage of the interim price monitoring process, Allconnex Water was provided with limited timeframes to provide information.

Stage 3 - Assessment of prudency and efficiency

For each project, an assessment of the prudency and efficiency of the project was assessed against the Authority's requirements. Based on the *Queensland Competition Authority Information requirements for 2010/11*, expenditure is prudent if:

- It is required as a result of a legal obligation
- It is required as a result of new growth (as approved by the Authority)
- It is a renewal of existing infrastructure
- It achieves an increase in the reliability or the quality of supply that is explicitly endorsed or desired by customers, external agencies or participating councils

Expenditure is efficient (cost-effective), if:

- The scope of the works (which reflects the general characteristics of the capital item) is the best means of achieving the desired outcomes after having regard to the options available, including the substitution possibilities between capital expenditure and OPEX and non-network alternatives such as demand management
- The standard of the works conforms to technical, design and construction requirements in legislation, industry and other standards, codes and manuals. Compatibility with existing and adjacent infrastructure is relevant as is consideration of modern engineering equivalents and technologies
- The cost of the defined scope and standard of works is consistent with conditions prevailing in the markets for engineering, equipment supply and construction.

In addition to the above criteria, the Authority requested us to assess the deliverability and timing of the capital expenditure program, having regard to the capital expenditure historically delivered by participating councils and the policies and procedures for capital expenditure going forward.

The cost efficiency of the projects was measured through comparison against published unit rates from Rawlinsons, available unit rates from SEQ water Entities and also other water utilities from other areas and previous project experience on similar projects. For example, the "Provision for AC Reticulation Main Replacement" project was assessed through benchmarking the scope of works identified with a range of anticipated rates. The proposed project costs for the 2010/11 financial year yielded a projected total cost of $1.7m for the construction of approximately 8.3km of DN100/150 pipe, which results in an estimated rate of just over $200/m. This rate was compared to a range of rates from past project experience, Rawlinsons and estimating tools. If the rate was within (±30%) of the range identified for a similar type, length and diameter, it was considered to be cost efficient. Based on this method for assessment it was this project was found to be within 5% of the lowest rate identified.

For reports with existing independent cost reviews, these were taken into consideration within the review.

We developed a template to facilitate consistent assessment the selected sample projects for prudency and efficiency using the above definitions. Completed templates for all projects are contained within Appendix B.2.

Capital project assessment method summary and recommendations

We have developed a three step method for reviewing the capital projects, which consists of identification and collation of information, assessing the adequacy of information and assessing the prudency and efficiency of the project. Each project was assessed against the Authority's definitions of prudency and efficiency, including the scope of work, standards of work and the costs.

The following section discusses our review of Allconnex Water's policies and procedures for developing its capital budget.

5.3.7. Commentary on business processes for capital project option study

This section discusses our review of Allconnex Water's policies and procedures. Initially we undertook a high level review of Allconnex Water's general policies and procedures. Based on this review, we assessed whether these policies and procedures represent good industry practice and identified whether there was evidence of these policies and procedures being utilised within the representative sample of projects under review.

5.3.7.1. Overview of policies and procedures

Within its submission, Allconnex Water has provided information on its service standards, capital planning and capital prioritisation. These processes are discussed further below.

Service standards

Allconnex Water generally has two types of standards:

- Customer standards - including details of the services provided and the water, wastewater and recycled water service areas, details of response and repair completion times, and other objectives
- Desired Standards of Service (DSS) provide standards that can impact on scale and timing of the capital program, including average day demands, demand distribution, peaking factors, pressure parameters, fire

fighting parameters, reservoir storage, pump and pipeline design and water, wastewater, trade waste, biosolids, release and recycled water quality.

Allconnex Water has provided service standards separately to the Required Information Template, rather than by individual metric within the Template. Table 4-15 outlines the supporting documentation provided to us.

Table 4-15 Supporting documentation provided by Allconnex Water

Document Number	Name of Document
8	Gold Coast Water Customer Service Standards
9	Gold Coast Water Desired Standards of Service Review 2008
10	Gold Coast 25 November 2009 Adopted Report (for DSS adoption)
11	Gold Coast Water Performance Plan 2009-10
12	Gold Coast Water SAMP 2009
13	Logan Water Customer Service Charter
14	Performance Plan for Logan Water 2009-10
15	Logan Water NWI Reporting 2008-09 (excel file)
16	Logan City Council TMP/SAMP 2009
17	Redland City Council SAMP 2008-2010
18	Redland Water Services Standards
N/A-Response to RFI	Redland Water & Waste, Desired Standards of Service Review – Water Supply, 1 August 2006

Chapter 5 of the *Allconnex Water Price Monitoring Submission 2010-11* (Allconnex Water, 2010) describes the businesses planning approach and service standards which inform the capital expenditure forecasts as provided over the 2010/11 to 2013/13 period. There is a minor error within the document. The document refers to Section 5.3.1 of the Required Information Template for the service standards for Allconnex Water, however 5.3.1 of the Required Information Template is blank and states "Service Standards are provided separately". This is a relatively easy error to correct and hence is not considered material.

Allconnex Water states that:

> *"planning projections currently assume no change to the pre-existing planning and customer service standards for each of the districts. The districts have incorporated the new requirements around fire fighting articulated in Chapter 6 of the Department of Environment and Resource Management Planning Guidelines for Water Supply and Sewerage. The service standards were reviewed for currency and applicability as part of the total management plans (TMPs) and strategic asset management plans (SAMPs) reviews".*

Based on our high level review of the provided supporting documentation, we can confirm that each geographic area has its own document outlining the service standards. However, within the timeframes and scope of this project, it was not possible to review and compare the service standards used within each area.

It is noted in the "Forward Work Program" of the *Allconnex Water Price Monitoring Submission 2010-11* (Allconnex Water, 2010) that a review of the standards of each district is currently taking place which will ensure that there is consistency across the business.

Under the *South East Queensland Water (Distribution and Retail Restructuring) Act 2009,* the Minister is expected to develop a water and wastewater customer code to provide for minimum and guaranteed service standards for the customers of the three distributor-retailers. We understand that this will occur by 30 June 2011. Allconnex Water has indicated that they will maintain their existing service standards until further information is available.

Capital planning and prioritisation

Allconnex Water has provided supporting documentation on their capital budget formation process. Table 4-16 outlines the supporting documentation provided to us. No documentation was provided for Redlands.

Table 4-16 Supporting documentation provided by Allconnex Water

Document Number	Name of Document
19	Gold Coast Capital Budget guidelines
20	Gold Coast Growth capital expenditure procedure
21	Gold Coast Water LAMP Charter
22	Logan Capital Works procedure
23	Logan Program delivery process map
24	Logan Program Management Plan
25	Logan Plan and Project Development Management Plan

Currently Allconnex Water has various processes for the different geographical areas. We note that in the context of the overall Water Reform process, where Allconnex Water has only been inexistence since July 2010 it is not unreasonable that common processes across the regions previously managed by different councils have yet to be established. We recognise that more time will be required to review and consolidate a planning approach for the overall company. This is acknowledged by Allconnex Water.

Allconnex Water's states that:

> *"There will need to be a coordinated approach to the planning issues that face the business. This may require a link between the infrastructure planning strategies of the three districts which should take into account the requirements of growth, renewals and legislative and regulatory obligations".*

Based on *Allconnex Water Price Monitoring Submission 2010-11* (Allconnex Water, 2010) the general process followed by all three districts to prepare and validate the capital budget comprised of several similar elements, as described below:

- Development – the process used to identify projects, build, approve and review a program
- Justification – the process used to justify individual projects in terms of meeting corporate goals, identifying service levels, defining the timing of the project in terms of meeting demands, regulatory requirements, maintenance or expected failure
- Evaluation and analysis – the process used to define the scope, cost estimates, impacts on capital expenditure and operational expenditure budgets, options evaluation and consequence of failure to make the investment
- Procurement – assessment of procurement options
- Prioritisation – the process used to prioritise projects on an annual basis, taking into consideration the ability to deliver the program
- Delivery – the process used to plan and deliver the program, including concept and detailed design, construction, asset acceptance and handover, monitoring and reporting on the program, process review, improvement and integration into further phases of planning or the business

Allconnex Water states that capital forecasts were developed taking into consideration growth, renewals and regulatory requirements, as follows:

- "Growth capital expenditure is dependent on the variables of population growth (residential and commercial/industrial development) and the changes in unit demand. Growth capital expenditure is derived from a long term growth infrastructure plan (priority infrastructure plan or planning scheme policies and associated planning reports). The 3/5 year program is evaluated to confirm the timing requirement, validating growth patterns, existing infrastructure and demand.
- Replacement/renewals are generally forecast on an end of economic life basis, using notional asset lives. The program reviews whether the life of the assets can be extended through maintenance and rehabilitation which will allow for the deferral of full replacement.
- Regulatory is driven by regulatory time constraints and the need to meet a regulatory or legislative requirement. The expenditure often arises from changes in legislation to improve issues such as service provision, safety and security. Forecasts are limited to the 3/5 year program."

Each district within Allconnex Water has produced either a priority infrastructure plan (PIP) or Planning Scheme Policies (PSPs), which have been adopted by Allconnex Water. These documents define the scale, type, timing and location of the growth in the city to plan future water supply and wastewater trunk infrastructure and to determine the charges required to fund it. We understand that these documents and the infrastructure identified in these documents was used develop the growth component of Allconnex Water's capital works program.

In addition, to meet the requirements of the *Water Supply (Safety and Reliability) Act 2008*, a strategic asset management plan (SAMP) was developed and approved for each of the three districts. These SAMPs have been adopted by the three relevant districts for Allconnex Water.

The use of PIPs, PSPs and SAMPs provides a consistent approach to the identification and development of growth related projects across all districts within Allconnex Water.

Allconnex Water is in the process of developing a *Netserv Plan* as required by the *Queensland Water (Distribution and Retail Restructuring) Act 2009.* The *Netserv Plan* must have regard to planning documents including in the *South East Queensland Regional Plan 2009-2031*. This document will assist to "*guide future growth planning for the region*".

We believe that the development of a *NetServ Plan* provides a good opportunity for Allconnex Water to develop a consistent and structured approach to planning for all districts, and the completion of this plan is recommended.

As previously stated, a detailed review of all of the policies and procedures within each district of Allconnex Water is outside of the scope and timeframe of this project. The following is a brief summary of the procedures within Allconnex Water Gold Coast District, which contains the majority (over 60%) of the capital expenditure for the interim period from 2010 to 2013. A review of the procedures within Allconnex Water Logan District has already been undertaken by a third party. The results of this investigation are presented later within this section.

Processes within Allconnex Water Gold Coast District

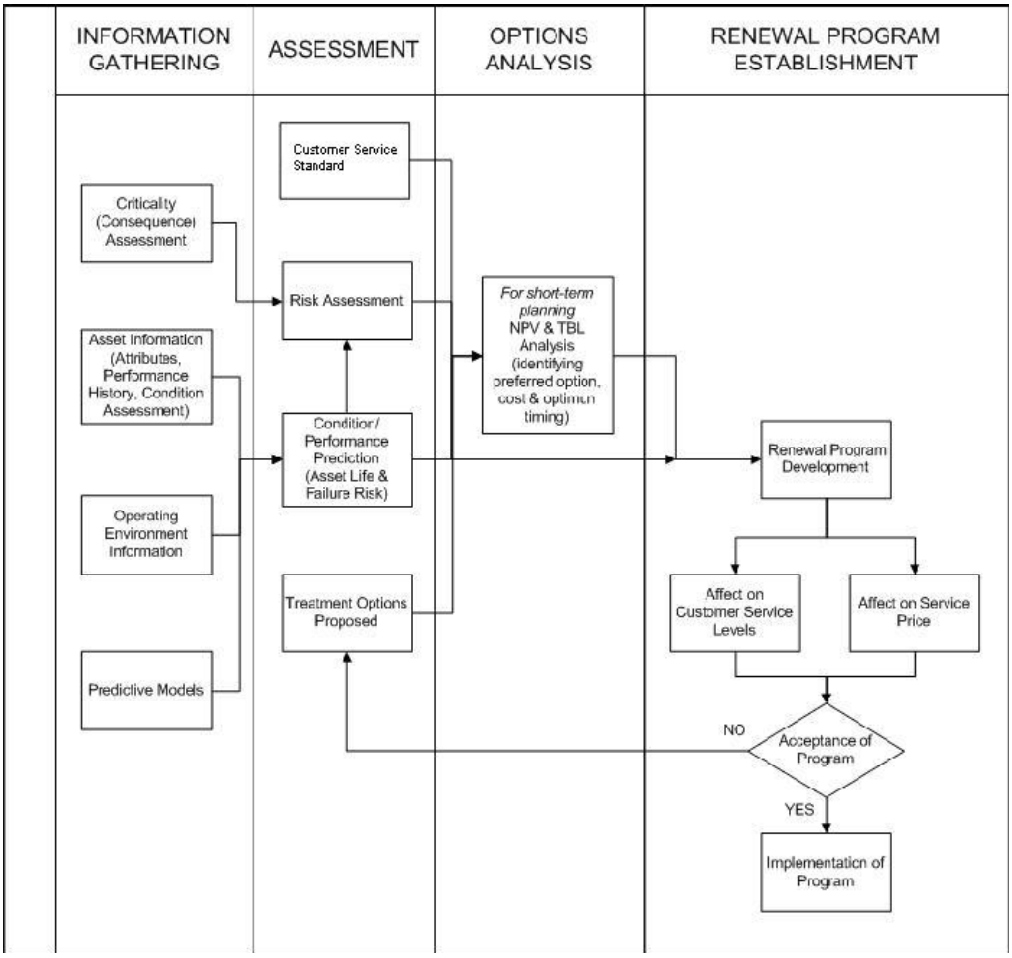
As previously identified, projects with a cost driver of growth are identified by the Allconnex Water Gold Coast District PIP. Growth projects form the majority of the proposed capital expenditure over the interim review period, just under 80%.

Projects with a cost driver of renewals form 18% of the capital expenditure for the interim period from 2010 to 2013. The Allconnex Water Gold Coast District method for identifying renewals projects is included within the Allconnex Water Gold Coast District SAMP.

The Allconnex Water Gold Coast District SAMP was developed by Gold Coast Water in March 2009. It includes the asset management strategy and the renewals strategy. The SAMP states that the renewal methods used can be categorised as either condition based or performance based, as explained in the following:

- Condition Based - the asset is assessed periodically to obtain its condition and a decision is made upon this assessment on the urgency of renewal.
- Performance Based – the assets are prioritised on whether or not a performance threshold is exceeded. A specific selection process is used for the potable water mains whereby a score is generated from calculating the number of bursts, number of properties interrupted and number of bursts per 100m in the past year. The score is used to prioritise renewals and those at the top of the list are used to make up a programme of works for the budget allocated that year.

The overall process is shown in Figure 4-7.



- **Figure 4-7 Desired asset renewal planning process (Source: Gold Coast SAMP, 2009)**

The above process is a robust method and is considered to be adequate for the identification of renewals projects.

In addition to the process outlined in the SAMP, Allconnex Water Gold Coast District has developed a Lifecycle Asset Management Program (LAMP). The purpose of this program is to:

- Ensure that the infrastructure capital works program and asset renewal and enhancement programs are
  - Appropriate, with regard to service demand and service standards
  - Cost effective, with regard to the bundling and timing of works
  - Deliver infrastructure assets that meet the quality and fitness for purpose criteria established by Service Delivery [or equivalent Allconnex Water Gold Coast District team]
- Implement several quality tools and processes to improve
  - The standard of analysis and as a result improving the standard of decision making

- The standard of Project Initiation Forms given to Infrastructure Delivery
- The standard of specification of work that is to be delivered by Infrastructure Delivery [or equivalent Allconnex Water Gold Coast District team]
- Prioritisation of capital expenditure programs to align with strategic priorities, affordability and delivery

The structure of the LAMP process is shown below:

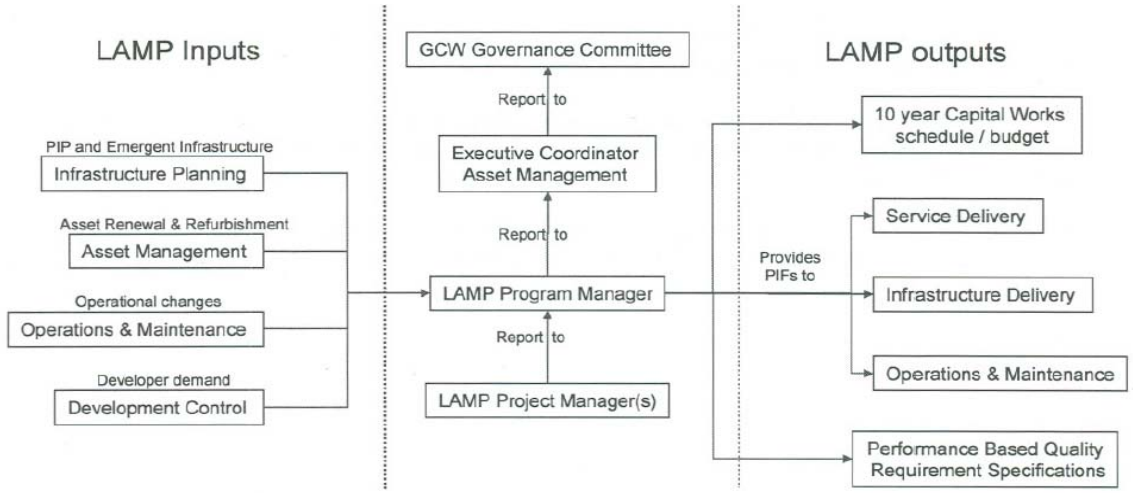


Figure 1 LAMP Structure

- **Figure 4-8 LAMP structure (Source: Gold Coast Water LAMP Charter)**

The documentation produced during the procedure is understood to include:

- Business Case: The purpose of the Business Case document is to present a case for including the project in the program of work.
- Project Initiation Form (PIF): Defining the project scope and the resources necessary to deliver the required solution.
- Infrastructure Design Report: Based on the outcomes of the PIF an Infrastructure Design Report will be created, including options analysis, costings (including NPVs), consideration of impacts on society and the environment and concept design.

5.3.7.2. Comparison with good industry practice

Following our high level review of Allconnex Water's general policies and procedures, we have assessed whether these policies and procedures represent good industry practice.

We consider that good industry practice for water utilities includes:

- The use of defined project stages which are common to all projects
- The production of adequate processes and documentation for each project stage, including documented requirements, reporting, documents and approvals within a project management and delivery framework
- The consideration of cost drivers to determine whether a project is adequately justified and therefore prudent
- The consideration of viable alternative options. Use of options assessments should consider the 'do nothing' base case. Within the context of a water utility, the 'do nothing' should be used as the base case to describe the impact and consequences of no action. The options described in the feasibility study should therefore focus on the likely engineering alternatives, to provide initial guidance on the likely solution for the further investigations
- The use of a multiple criteria assessment to ensure a triple bottom line approach for determining the recommended solutions. The use of a standardised process for conducting this assessment will facilitate justification and prioritisation of a specific project over another
- The documentation of the project/program selection and prioritisation, through close-out reports and approvals gateways at each project stage
- The use of master planning of its water and wastewater system, including trunk infrastructure planning, preliminary infrastructure sizing, modelling and forward costing
- The establishment of long term, coordinated, and structured development sequencing to meet the requirements for population growth planning which considers the efficient delivery of all infrastructure to service population growth
- The use of a defined asset management system based on condition assessments and/ or risk profiles to identify renewals projects
- The consideration of relevant legislation and state wide planning directions
- The use of unit costs developed from actual project data or from comparative data
- The standardisation of cost estimation procedures, including either standardised percentages for contingencies or a risk-based cost estimation system.

We consider a good governance process should address and document at least the following issues:

- What are the drivers that triggered the project?
- What are the options which are likely to address the drivers?
- How was the recommended option selected?
- What is the approved project cost and on what basis?
- Does the solution pass the internal (eg economic, technical, environmental) and external (eg Regulatory) tests?
- What are the risks and how are they to be managed?
- What are the critical success factors for the project?
- What was approved and how was it approved?

- How was the project implemented?
- How did the project perform – what went well and what can be learned from the performance?
- Did the project address the critical success factors?
- How did the as-built cost compare with the original estimate upon which approval was sought?
- Would the as-built cost of the project, have changed the order of merit of the options considered at the options analysis stage?

Also essential to good industry practice is the establishment of robust water demand forecasts. These total water demand forecasts are based on the following key inputs:

- Population data, which is typically based on Census data, State Government and Local Government employment and growth projections.
- Per Capita water demands, which is typically based on historical water consumption, and predicted future per capita demands accounting for some water conservation.

These projections are the cornerstone of all long term infrastructure planning. The long term demands are then translated into the annual, monthly and average daily water demands and wastewater loadings for the community, and the storage and distribution system capacity to meet the community's water demands. Demand forecasting is currently being addresses by a separate consultant, Frontier Economics, who will produce a separate report on this issue.

From our review of Allconnex Water Gold Coast District's processes and procedure, we conclude that they represent many aspects of good industry practice. The key elements of our findings from this review are noted below.

It is apparent that Allconnex Water has a system in place for selecting capital expenditure projects based on the three main cost drivers of growth, renewals and compliance.

Allconnex Water has in place well documented procedures for the identification and prioritisation of projects with a primary cost driver of growth. The establishment of long term, coordinated, and structured development sequencing to identify growth projects represents good industry practice. The development of PIPs for all districts, allows Allconnex Water to meet the requirements for population growth planning which considers the efficient delivery of all infrastructure to service population growth.

Based on the information provide and within the available project timeframes, we have identified that Allconnex Water Gold Coast District has a robust and consistent method for the identification of renewals projects, incorporating performance and asset conditions and risk assessments. The use of periodic condition assessments and the use of performance measures such as burst per 100m to select renewals projects allows Allconnex Water to meet customer service requirements and allow the prioritisation of infrastructure replacement and represents good industry practice.

The use of Allconnex Water Gold Coast District LAMP process provides the opportunity for the production of clear documentation and the use of an agreed approvals structure to prioritise projects. This too is considered to be good industry practice.

A report was commissioned regarding the capital expenditure for the Allconnex Water Logan District. The "*Review of Prudency and Efficiency of Capital Expenditure*" Report (Cardno, 2010) reviewed the infrastructure planning and delivery within this area and concluded:

> *"Logan District's approach to planning does not follow a typical structure. We accept that the dynamic approach employed is necessitated by the significant rate of change in its operating environment and that planning is still bound by master plans for water and sewerage infrastructure."*

Regarding the Logan Water Alliance, the report concludes that:

> *"The process for promoting planning and construction expenditure through the Logan Water Alliance contains many of the key elements of an industry best practice Gateway Review Process and is broadly aligned. However, this process may be improved by being simplified, by incorporating a benefits evaluation stage and by including independent review for certain projects. We consider that the process is sufficiently robust and has hold points at important stages to only promote expenditure that is prudent to construction".*

The commissioning of the "Review of Prudency and Efficiency of Capital Expenditure" Report (Cardno, 2010) for Allconnex Water Logan District is an example of the efforts that Allconnex Water has undertaken to create a prudent and efficient capital program.

5.3.7.3. Use of policy and procedures within case studies

We have sought evidence of the process documents, approvals and reports for the projects selected within the representative sample.

During our review, it was difficult to assess whether each the correct cost driver had been applied to each project, as the initial project list did not contain details of cost drivers. Based on discussions with Allconnex Water, we understand that a detailed project list is available, with cost drivers for each project. This document has not been reviewed by us.

Three projects were reviewed within the Allconnex Water Gold Coast District. For the two larger projects, Merrimac West Wastewater Stage 2 and PCWF Potable Water Network - Developed Areas, several planning reports and master plans had been undertaken, which appear to be consistent with Allconnex Water Gold Coast District's procedures. For the smaller project reviewed, Guineas Creek Rd, a Project Initiation Form and an Investigation Report had been completed. We note from our review of the documentation that the Investigation Report did not following the prescribed outline or include financial analysis, however this may not have been appropriate in this instance.

Four projects were reviewed within the Allconnex Water Logan District. Two of these projects, Chetwynd St Upgrade and the Southern Relief Sewer - Stage 1, were discovered to be part of or had been replaced by the Slacks Creek Project. From the information initially provided, we had difficulty identifying the scope for this project within the supporting documentation and correlating this to the provided project list. Within the limited review timeframe, the shortcomings we have identified are not in compliance with the process, but rather in the level of information and documentation prepared, and the ability for parties independent of the planning process (such as the Authority) to adequately assess a project based on the documentation provided.

5.3.7.4. Recommendations for future processes

We note that in the "Forward Work Program" of the *Allconnex Water Price Monitoring Submission 2010-11* (Allconnex Water, 2010) that a review of the standards of each district is already taking place which will ensure that there is consistency across the business. We support this review and recommends that the outcomes of this review are used for the future planning of projects. In addition, as part of the preparation for next year's capital budget, we recommend that any project developed based on superseded standards of service is reviewed for prudency.

In addition, Allconnex Water has stated that:

> *"There will need to be a coordinated approach to the planning issues that face the business. This may require a link between the infrastructure planning strategies of the three districts which should take into account the requirements of growth, renewals and legislative and regulatory obligations".*

We support this statement and recommends that Allconnex Water develops a clear and consistent capital planning and prioritisation process for all districts. This may include the expansion of the implementation of successful processes from individual districts, such as the Gold Coast district LAMP management process and the Logan district gateway processes, to other districts.

We recommend that an overall process is developed for selecting and prioritising projects from each of the three districts. This should include the consideration of the synergies between the three districts to create an integrated network.

We understand that Allconnex Water has developed a detailed project list including project cost drivers; however this was not reviewed during our assessment. To facilitate future reviews, we recommend that Allconnex Water provides a capital expenditure project list including the following items:

- A unique identifier for each project (ie project number or similar)
- A brief project description
- Asset category (drinking water, wastewater via sewer etc)
- Geographic area (Gold Coast, Logan, etc or future boundaries)
- Relevant cost driver (and percentage allocation, if split between multiple drivers)
- Current project status (initiation, preliminary design, detailed design)
- Links to existing reports, project initiation forms, business cases etc

- Links to relevant standards of service
- Proposed capital expenditure for the review period

We recommend that this capital expenditure project list is formed to facilitate the population of the Authority's Required Information Templates.

In addition to a comprehensive project list, we consider that there is merit in Allconnex Water developing a single page project summary for each project/program which highlights the above areas and provides more detail on the project drivers, standards of service met (eg for growth projects, the magnitude and source of the population growth, forecast demand, and links to the current DSS or relative planning reports), provides project history (eg the previous reports completed), provides the proposed future stages, proposed delivery method and program for the project. We recommend that this summary sheet be updated at the completion of each project phase and prior to the inclusion of the project within the budget.

It is expected that a similar process may be already underway as part of a board review process and may already be occurring within the Gold Coast District under the LAMP management. As such we recommend that the successful elements of this scheme should be combined with the successful elements of any similar schemes within the two additional geographic areas and adopted by all geographic areas, to ensure consistency in the selection and prioritisation of capital expenditure.

In addition, we suggest a standardised approach to cost estimating should be considered. This would include a standardised approach to estimates for items such as contingency, preliminary and general items, design fees and contractor margins, so that there is uniformity of cost estimating across all districts and across all major projects. Implementation of a probabilistic or risk based cost estimating approach could be considered.

5.3.8. Capital project assessments

A summary of the projects reviewed by us is provided in Table 4-17. Full project reviews are contained within Appendix B.3.

We have assigned the projects into one of four categories:

- Information provided demonstrated project to be prudent and efficient
- Information provided demonstrated project to be not prudent and/or efficient
- Insufficient information provided to demonstrate project is prudent and efficient
- Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development and is consistent with historic costs.

These categories are used within Table 4-17.

We recommend that projects where insufficient information is provided to demonstrate prudency and efficiency, but that the level of information is consistent with the stage of development that the project should remain within the forecast capital expenditure but be reviewed during future evaluations. If removed from the budget, this is likely to

cause disruption to the provision of service delivery in the future. The inclusion of these costs provides the Entities with the opportunity to undertake the appropriate preliminary works and produce sufficient supporting documentation. Where projects are either demonstrated by the information provided to be not prudent and/or efficient, or where no information was provided to support the project, these costs should be removed from capital expenditure forecasts.

All projects and programs should be considered in the overall context of the Water Reform. The majority of these projects will have been initiated within previous council organisations, using the policies and procedures and standard of service developed under these councils.

Whilst all projects evaluated are considered by us to be prudent and efficient for the 2010/11 financial year, there are several projects and programs where insufficient information was provided to assess the prudency and efficiency of these projects beyond the 2010/11 financial year. Our conclusions with respect to the prudency and efficiency of the proposed capital expenditure programs are detailed below.

- **Table 4-17 Summary of the Allconnex projects reviewed by SKM**

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Merrimac West Stage 2 WW Network Augmentation	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Yes	Yes	78,750	238,640	78,750 (no change)	Requires further review
Potable water network – developed areas	Information provided demonstrated project to be prudent and efficient		Yes	Yes	4,725	19,746	4,725 (no change)	19,746 (no change)
Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Yes	Requires further review	2,000	61,000	2,000 (no change)	Requires further review
Point Lookout WWTP	Information provided demonstrated project to be prudent and efficient		Yes	Yes	5,656	12,264	5,656 (no change)	12,264 (no change)

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Reticulation – Backlog fire flow augmentation	Information provided demonstrated project to be prudent and efficient		Yes	Yes	2,555	7,184	2,555 (no change)	7,184 (no change)
Cleveland WWTP	Information provided demonstrated project to be prudent and efficient		Yes	Yes	-	4,854	- (no change)	4,854 (no change)
Provision for AC Reticulation Main Replacement	Information provided demonstrated project to be prudent and efficient		Yes	Yes	1,700	8,100	1,700 (no change)	8,100 (no change)
Guineas CK Rd Gravity & Rising Main Augmentation	Information provided demonstrated project to be prudent and efficient		Yes	Yes	1,083	1,083	1,083 (no change)	1,083 (no change)
Treatment Plant Future Misc Cap items Estimate	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Yes	Clarification required	105	615	105 (no change)	Requires further review

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Pump Station No. 61	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate the program to be prudent and efficient in future years, but level of information provided is consistent with the stage of development.	Yes	Yes	53	230	53 (no change)	Requires further review

5.3.8.1. Capital projects considered efficient and prudent

The following projects are considered to be prudent and efficient for all financial years.

- Potable water network – developed area
- Point Lookout WWTP
- Reticulation – Backlog fire flow augmentation
- Cleveland WWTP
- Provision for AC Reticulation Main Replacement
- Guineas CK Rd Gravity & Rising Main Augmentation

For the following projects, whilst sufficient information was provided for the 2010/11, there is insufficient information for the following financial years to allow us to review the prudency and efficiency of these projects.

- Merrimac West Stage 2 WW Network Augmentation
- Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1Treatment Plant Future Misc Cap items Estimate
- Pump Station No. 61

These projects are summarised below with comments on the prudency and efficiency of the project. Full project reviews are included in Appendix B.3.

Merrimac West Stage 2 WW Network Augmentation

- The capital expenditure is proposed to be $240 million over the 2010/11-2012/13 financial years.
- The Merrimac West Stage 2 Wastewater Network Augmentation project is proposed to upgrade the current wastewater infrastructure within the Merrimac West catchment to accommodate the proposed level of required service for future growth. Many components throughout the system are reaching the end of their useful asset life including mechanical equipment in major pump stations.
- We have undertaken a high level cost review of the works. Given the intricacies of the network including the large number of pump stations to be decommissioned and subsequent bypass sewers to be installed, a complete cost review of each item was not feasible within the project timeframes. Based on a review of the rates and itemised costs of items and works such as gravity sewers, rising mains and the new regional pump station to be delivered, the costs appear to be of the correct order of magnitude.
- Given certain elements of the existing system are currently at capacity, sufficient information has also been provided to support an immediate start to work. Construction is scheduled to begin before the year ends, however we were advised that the project is currently behind schedule. The impact of this delay on the budget cannot be determined. It is recommended that the budget for future years is reviewed during the next assessment to account for any carryover of capital works.

- In addition, it is understood that the Target Outturn Cost has yet to be agreed by the Allconnex Water Board. The future delivery mechanism of this project is also uncertain, which has a related impact on the quantum and timing of expenditure.
- Based on the above, the capital expenditure for this program of works for 2010/11 appears prudent and efficient; however the expenditure in years 2011/12 and 2012/13 requires further review.

Potable water network – developed areas

- The capital expenditure is proposed to be $20 million over the 2010/11-2012/13 financial years.
- The potable water network – developed areas project is designed to service the existing development areas of Tooraneedin, Jacobs Well and Steiglitz. It involves the construction of two pump stations, two reservoirs, two re-chlorination plants and the installation of approximately 24km of DN110 to DN250 PE and ductile iron mains.
- The *PCWF – Development of Options for Service Delivery Impacting on Pimpama Coomera* implies that infrastructure was sized to deliver peak hour flows and fire flow while maintaining service pressure to customers as outlined in GCW's desired standards of service, which have been adopted by Allconnex Water Gold Coast District.
- Based on a comparison of the average pipeline unit rates used within *PCWF – Development of Options for Service Delivery Impacting on Pimpama Coomera,* with a range of pipeline unit rates from similar water utilities, the rates are within +/- 20% and are considered to be reasonable.
- The capital expenditure for this program of works for the three years commencing 2010/11 is considered to be prudent and efficient.

Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1

- In response to RFIs Allconnex advised that the Chetwynd St Upgrade and Southern Relief Sewer Stage 1 projects have been replaced by the 'Slacks Creek Project and other smaller projects'.
- It is understood that the main the main components of this 'Slacks Creek Project and other smaller projects' are:
  - Loganlea Park Diversion Gravity sewers $21.8 M
  - Loganlea Park Diversion Rising Mains $30.2 M
  - Loganlea Park Stage 1 New Pump Station $7.0 M
  - Plains Pump Station Rising Mains $32.2 M
- The project assessed is the Slacks Creek Trunk Sewer Extension- Rising Main Stage 1 which is assumed to be the same as the Loganlea Park Diversion Rising Mains.
- This project involves the provision of a new wastewater rising between Loganlea (future SPS) and Loganholme Water Pollution Control Centre (WPCC).
- Although the preferred strategic option for the overall Slacks Creek Project was identified, the configuration and staging of the preferred strategy is still under development, and as such, there is insufficient information to determine whether the overall project is prudent and efficient. The *Logan North Wastewater Strategy*

(May 2010) recommends that "In combination with the business case development, an optioneering study should be undertaken to investigate in more detail the configuration and staging of the preferred strategy, as well as potential short term and alternative options that will address the existing capacity issues in the Loganholme trunk sewer network. These options should be developed in the context of the long term strategy, but will focus on improving the staging of capital expenditure associated with the preferred strategy."

- The capital expenditure for this program of works for the three years commencing 2010/11 is considered to be prudent, although the costs reviewed to date are considered to be slightly high and may be delivered more efficiently.
- Consequently it is recommended that expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Point Lookout WWTP

- The capital expenditure is proposed to be $12 million over the 2010/11-2012/13 financial years.
- The Point Lookout Sewerage development identified the need to upgrade / further develop the Point Lookout WWTP, particularly to address the issue of nutrient release at Cylinder Beach and providing for the emerging growth of the township.
- The capacity of the plant is to be upgraded from approximately 860EP to around 6000EP.
- Preliminary work (detailed design and tender assessment) is to be completed in 2010. Construction is scheduled to commence in 2011 and scheduled for completion by 2012.
- The project is supported by robust documentation, including:
  - Planning report – options assessment, justification, recommendation and further development.
  - Cost Estimates – Capital expenditure and Operational expenditure budgets
  - Delivery method considered within the planning report (2005) – but further supporting information is recommended to provide confirmation on the selected delivery method (to-date).
  - Board report, Business case – although noted that this is not the final version
  - Works Program
- The works are considered to be efficient. An Independent Estimator (Project Support) and an Alliance Financial Auditor (KPMG) provided external scrutiny of the process and reviewed costing information. The build-up of costs is considered to be robust.
- The project is considered to be prudent and efficient.

Reticulation – Backlog fire flow augmentation

- The capital expenditure is proposed to be $7 million over the 2010/11-2012/13 financial years.
- The Reticulation – Backlog fire flow augmentation project involves replacing large amounts of pipe infrastructure to meet the fire flow demands. In undertaking detailed network modelling for the Pressure & Leakage Management Project, it was discovered that significant areas of the water supply network are unable to provide fire flows in accordance with the current NRW Planning Guidelines for Water Supply & Sewerage.

- Identified failures have been prioritised based on whether they fail at current demand (170l/person/day based on 06/07 water meter data). Subsequent years of the program contain areas that fail at 230l/person/day, and planning demands of 320l/person/day. This project will improve the (reticulation) water network's ability to provide fire flows.
- Based on a comparison of the average unit rates, with a range of unit rates from similar water utilities, the rates are within +/- 20% and are considered to be reasonable.
- This project is considered to be prudent with respect to demonstrated need based on the information provided and costs are considered to be reasonable.

Cleveland WWTP

- The capital expenditure is proposed to be $4.8 million over the 2011/12-2011/12 financial years.
- The Cleveland WWTP is an upgrade of the existing treatment plant including the renewal of the access road, provide filters for recycled water, repair inlet screens, upgrade odour control, replace belt filter press and by 2016 provision of a balancing tank and chlorine contact tank.
- Population growth projections in the Cleveland catchment from current population estimates (33,000 EP in 2009) until 2025 (47,000EP) are significant at 45%.
- In addition, as part of the licence application, recommendations have been received from DERM including consideration of future plant upgrade to include licence limits of TN 3mg/L and TP 0.5mg/L. The outcome of this licence application, and in particular the TN and TP licence limits assigned by DERM, will have significant implications on the planning strategy for this WWTP. The balance tank will provide additional operational stability to ensure licence nitrogen limits for the plant can be met for future loads and therefore was included in the capital planning for the plant.
- Overall this is a relatively small project. The components programmed for 2010 are relatively minor and mostly M&E works so in should be deliverable in 2010/11. The major component is required by 2016 and even then the scope is relatively small.
- The CAPEX is considered to be prudent. The estimates generated to date appear to demonstrate cost efficiency; however there are some minor concerns about apparently very different unit rates for the same or similar work at the same site. However overall the approach adopted to date is considered to be efficient.

Provision for AC Reticulation Main Replacement

- The capital expenditure is proposed to be $8 million over the 2010/11-2012/13 financial years.
- The provision for AC reticulation main replacement project is to replace existing water supply reticulation mains (DN100/150 pipes) with same diameter or different diameter (as determined through planning). The 2010/11 scope of the project includes:
  - Supply and installation of about 8.3 kilometres of DN100/150 new pipelines, including valves and hydrants over 25 different locations.
  - Reconnection of existing water service connection to the new main.
  - Decommissioning of existing section of pipeline to be replaced.

- Should some existing property services be found to be in poor condition, they will be replaced during the work.

- This work is required due to the pipe failure history over the past 3-6 years. As part of fulfilling the customer service target of less than 25 main breaks per 100km and maintenance management, Allconnex Water aims to renew pipes that have greater than or equal 2 bursts in the past 12 months or greater than or equal 4 bursts in past 3 years on the water main asset. This Customer Service Standard was adopted in the Total Management Plan 2009 for Logan District.
- The report 'Review of Prudence of Capital Expenditure' September 2010 by Cardno (Qld) Pty Ltd has also drawn the conclusion that this project is prudent.
- The project costs appear to be not unreasonable for the 2010/11 financial year based on the scope provided. These costs do appear on the lower side of what might be expected (less than 30% of some unit rates).
- Based on the above, the capital expenditure for this program of works for the 2010/11 financial year is considered to be prudent and efficient, though due to lack of information no assessment can be made regarding the prudency and efficiency of capital expenditure in FY 2011/12 and 2012/13. Consequently it is recommended that expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Guineas CK Rd Gravity & Rising Main Augmentation

- The capital expenditure is proposed to be $1 million over the 2010/11-2012/13 financial years.
- The Guineas CK Rd Gravity & Rising Main Augmentation project involves the construction of a new 300mm diameter water main, condition assessment of existing mains, decommissioning of the C9 to C1 rising main (1080m of DN300), construction and upgrade of wet wells and pumps.
- The augmentation of this infrastructure is required due to increased population growth in the catchment area and the current infrastructure not meeting the required standards of service.
- The project costs appear to be not unreasonable based on the scope provided. Based against comparisons with benchmarks the costs are within +/-30%.
- Based on the information provided, the capital expenditure for this program of works is considered to be prudent and efficient.

Treatment Plant Future Misc Cap items Estimate

- The capital expenditure is proposed to be $0.6 million over the 2010/11-2012/13 financial years.
- This project involves miscellaneous items to be included in the capital expenditure budget for Allconnex Water. It includes the renewal of both the roof and inlet building façade of the LWPCC, as they have been identified as a serious workplace health and safety issue.
- The capital expenditure for this program of works (the roof and the facade) within 2010/11 is considered to be prudent and efficient. Consequently it is recommended that expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Pump Station No. 61

- The capital expenditure is proposed to be $0.25 million over the 2010/11-2012/13 financial years.
- Pump station No. 61 was identified as not currently meeting the performance requirements. It has therefore been proposed to upgrade this pump station with new pumps.
- The documentation for this project is not complete. It is recommended that Allconnex develop and apply a more rigorous assessment and documentation processes for this type of project.
- The expenditure for the 2010/11 financial year is understood to include survey, planning and design / engineering. As design investigation is yet to be completed, there is insufficient information to assess the prudency and efficiency of the following years. Consequently it is recommended that expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Comparison of Process Project Costs

A comparison between projects based on the current and future EP, capital costs and unit cost per EP will only be meaningful if the projects are based on equivalent schemes, which includes the following factors:

- Scope of work –design and construction of the additional process units
- Key drivers for the upgrade / new project – some projects may require upgrade due to inability to comply with current / future licence requirements, more than increase in population.
  This would also affect the technology adopted for the upgrade for the plant – more advanced / complex technology may be required to meet the stringent licence requirements, which would imply higher capital costs.
- Current performance versus future requirements
- Construction site and accessibility

The process projects reviewed for Allconnex Water vary significantly in scope. Therefore a direct comparison of the unit cost per EP for both projects is not meaningful, as highlighted in Table 4-19.

- **Table 4-18 Comparison of process project costs per EP**

Project	EP (previous)	EP (future)	Increase in EP	Estimated Cost	Unit cost per EP	General Scope of Work
Point Lookout	1,654 (Year 2009 – peak)	7,164 (Year 2026)	5,510	$12.26 million	$2,225	1 ML/d MBR plant, Effluent main, Pumping station
Cleveland	33,000 (Year 2009)	47,000 (Year 2025)	14,000	$4.85 million	$346	Additional filters only

5.3.8.2. Capital projects not considered efficient and prudent

All projects evaluated are considered by us to be prudent and efficient for the 2010/11 financial year.

5.3.9. Summary of assessment of Allconnex capital expenditure spend

Whilst all projects evaluated are considered by us to be prudent and efficient for the 2010/11 financial year, there are several projects and programs where insufficient information was provided to assess the prudency and efficiency of these projects beyond the 2010/11 financial year. These are:

- Merrimac West Stage 2 WW Network Augmentation
- Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
- Treatment Plant Future Misc Cap items Estimate
- Pump Station No. 61

We believe that the level of information provided for this review is consistent with the stage of development for each project. In future, it is recommended that further information is provided regarding the scope of works required, and to identify the process by which projects are selected and prioritised. As such, we recommend that these programs are further reviewed before approval.

5.3.9.1. Demand forecast review implications

We have reviewed the draft and the draft final versions of the *SEQ Interim Price Monitoring: Assessment of Projected Demand* (Frontier Economics, 2010). The final version of this report was not available at the time of writing and we note that subsequent changes may be made to the report's recommendations. The draft version was distributed to all Entities prior to the production of the draft final version.

As stated by Frontier Economics:

> *"the quality of demand forecasts has a direct impact on... capital expenditure - particularly where growth is a major driver of system augmentations."*

One of Frontier Economics key recommendations is to increase the short term demand, ie. the number of properties connected to water and wastewater services, in line with data produced by the Planning Information and Forecasting Unit (PIFU) within the Office of Economic and Statistical Research. These increases are predicted by activity (water, wastewater), geographic area (eg Gold Coast, Redlands) and by type (residential and business). For Allconnex Water the changes are minor, up to a 3% increase, with a recommended increase of approximately 4,200 properties for drinking water and 900 properties for wastewater. These increases have minor implications for capital expenditure and volumetric-based operational expenditure costs. As this increase in demand is not linked to specific water supply areas or wastewater catchments it would be difficult to assess the impacts on a project by project level.

In addition, Frontier Economics has made several comments regarding the consistency of short and long-term forecasts. Frontier Economics concludes:

"Frontier has not made any adjustments to Allconnex's long-term demand forecasts, but recommends Allconnex review its methodology as part of its ongoing business planning and improvement program."

As Frontier Economics has not recommended a change to the long term demand forecasts for capital works planning, no projects will be impacted.

5.3.9.2. Operational expenditure review implications

As no projects have been identified as being not prudent or efficient within the 2010/11 financial year, there will be no impact on the operational budget. The impact of any future changes to the capital program should be considered as required.

5.3.9.3. RAB review implications

The capital expenditure programs will be rolled up into the RAB. As no projects have been identified as being not prudent or efficient within the 2010/11 financial year, there will be no impact on the RAB.

5.3.9.4. Proposed revised template

All projects have been identified as either:

- Information provided demonstrated project to be prudent and efficient
- Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development.

Therefore there will be no required updates to the template.

No attempt was made to extrapolate from sample set to the entire capital expenditure forecast.

5.3.10. Capital assessment summary

The following key conclusions have been made from the analysis of Allconnex Water's capital expenditure forecast:

- We have identified a representative sample of 13 projects. Of this sample, 11 projects were assessed by us against the Authority's definitions of prudency and efficiency, including the standards of work, scope of work and the costs. Based on our review, the capital expenditure for these projects for the 2010/11 financial year is prudent and efficient.
- For the following four projects continuing in 2011/12 and 2012/13, insufficient information was provided to assess the prudency and efficiency of the projects.
  - Merrimac West Stage 2 WW Network Augmentation
  - Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
  - Treatment Plant Future Misc Cap items Estimate

- Pump Station No. 61

- We believe that the level of information provided for this review is consistent with the stage of development for each project. In future, it is recommended that further information is provided regarding the scope of works required, and to identify the process by which projects are selected and prioritised. As such, we recommend that these programs are further reviewed before approval.
- From our review of Allconnex Water's processes and procedure, we conclude that they represent many aspects of good industry practice. However, it is noted that the policies and procedures are currently different within each district. We note that Allconnex Water has identified that in future a coordinated approach will be taken to the planning issues. We support this statement and recommends that Allconnex Water develops a clear and consistent capital planning and prioritisation process for all districts. This should incorporate the successful elements of the policies and procedures from each district.

Our other findings are as follows:

- Allconnex Water has provided a submission which complies with the Authority's guidelines excepted as noted in the following. The Information Required Template was completed for the key activities (water and wastewater); however disaggregation of data into all of the potential sub categories has not been carried out, particularly for corporate costs. In addition there appear to be a few errors within this spreadsheet regarding the misallocation of costs to sub categories.
- A project list was provided. This project list identifies each project, the activity and the proposed timing of expenditure (ie. costs per financial year). However limited information is provided on a project by project basis, in terms of cost drivers, scope or standard of works. No linkages have been provided to the underlying cost components such as unit rates, on-costs and contingencies and any other supporting materials such as consultant reports. Based on discussions with Allconnex Water, we understand that a more complete project list is available which includes project descriptions and cost drivers. This was not reviewed during our assessment.
- We would stress that these relatively minor issues should be considered within the overall context of the water reforms, where Allconnex Water has only been in existence for two months and that the list of projects and supporting information was produced from information from three separate councils.
- Currently Allconnex Water has several varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand a review of the standards of each district is currently taking place which will ensure that there is consistency across the business.

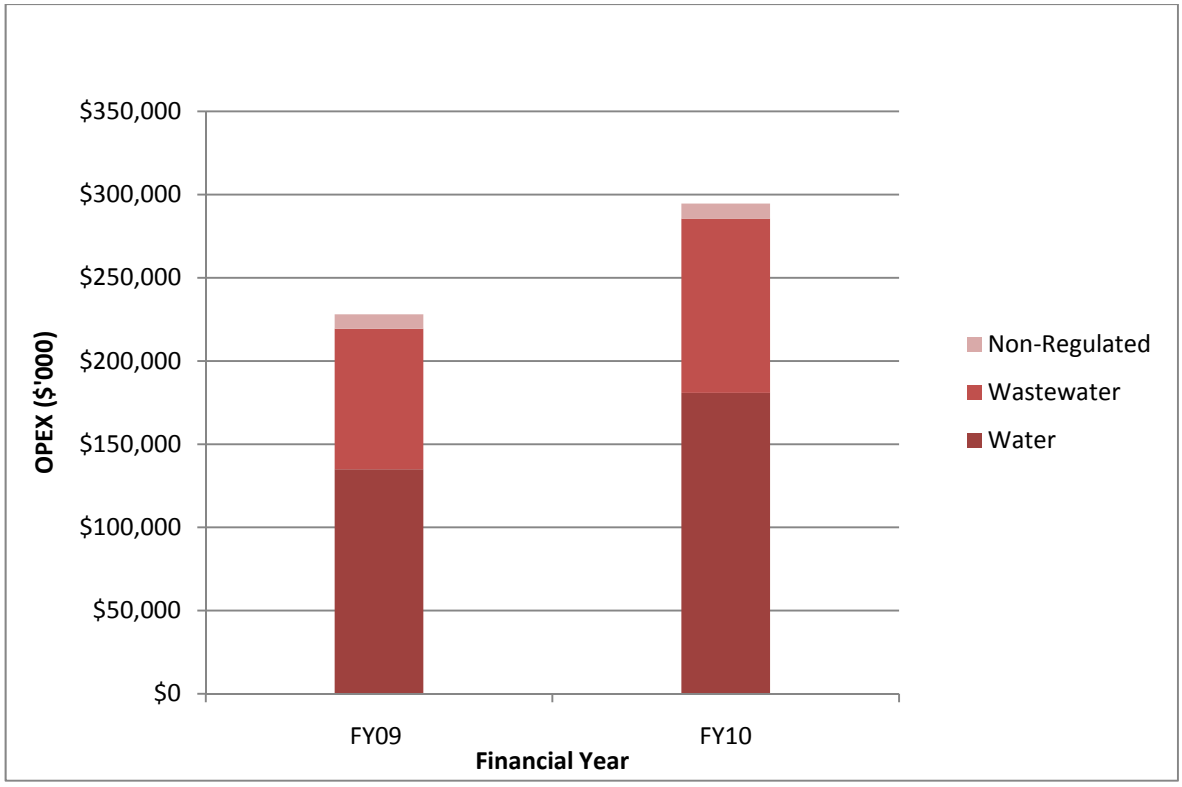
5.4. Allconnex Water operational expenditure review

5.4.1. Overview of submission to Authority

5.4.1.1. Operational expenditure from 1 July 2008 to 30 June 2010

Allconnex Water has included historical operating expenses data for FY09 and FY10 in its submission to the Authority. Data was obtained from the actual FY09 financial statements for the Councils formerly provided water and wastewater services in Allconnex Water's area of operation. For FY10, a forecast of expenditure was made as the audited statements for FY10 were not available at the time of the submission.

Shown in Figure 4-9 below, the combined Council operating expenditure for water and wastewater services in FY09 and FY10 was $228.1M and $294.6M respectively.



Source: Allconnex Water Information Requirements Template

- **Figure 4-9 Historical operating expenditure for councils that form Allconnex Water**

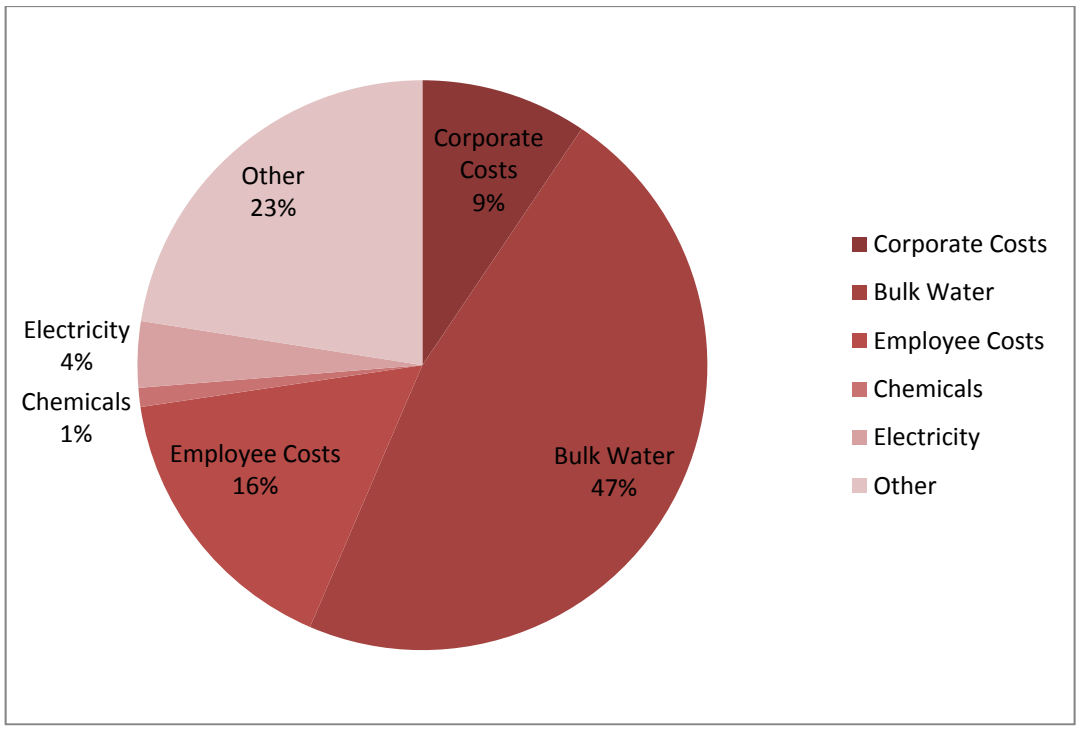
As Allconnex Water, along with the other SEQ water Entities, is in its first few months of operation, an assessment of the actual operating expenditure against previous year's budgets under the Allconnex Water business model is not possible at this stage (an assessment of each of the Councils performance against budgeted expenditure is possible, but it is not appropriate for this interim price monitoring assessment).

Nonetheless the evaluation of actual and budgeted operating expenditure in future price monitoring assessments by the Authority would be considered standard regulatory practice and indeed would be valuable in helping each Entity identify areas of improvement when developing their respective operating expenditure budgets.

5.4.1.2. Operational expenditure from 1 July 2010 to 30 June 2013

Allconnex Water has an operating expenditure budget of $1,221M for the interim price monitoring period (FY10, FY11 and FY12).

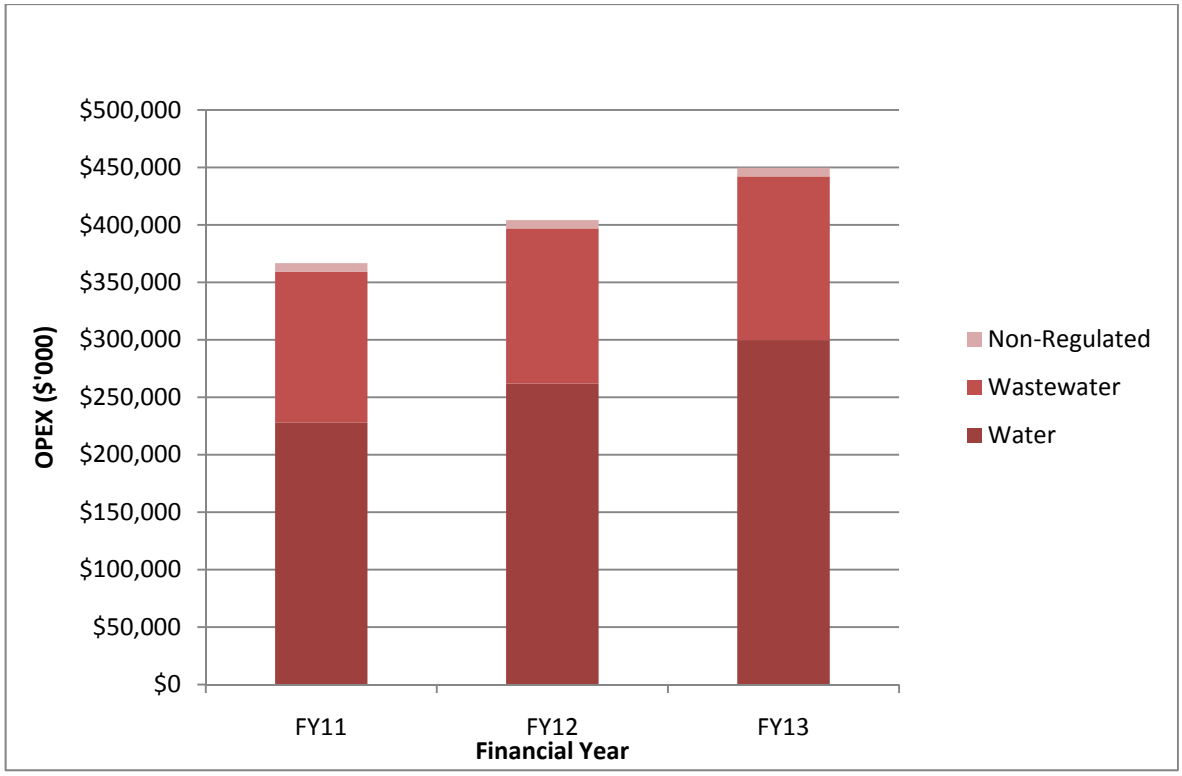
The major cost categories within the operating budget are bulk water purchases, corporate costs, employee costs, electricity and chemicals as depicted in Figure 4-10.



Source: Allconnex Water Information Requirements Template

- **Figure 4-10 Overview of Allconnex Water operating expenditure for FY11-13**

Allconnex Water has forecast that that its operating expenditure will increase from $366.7M in FY11 to $449.8M in FY13 as depicted in Figure 4-11.



Source: Allconnex Water Information Requirements Template

- **Figure 4-11 Forecast Allconnex Water operating expenditure for FY11-13**

Forecast operating expenditure was developed by identifying relevant cost escalation indices. For volume related costs, such as chemicals and electricity used in treatment processes and pumping, growth factors have also been identified. The indices and growth factors used in Allconnex Water's submission are summarised in Table 4-18 below.

- **Table 4-19 Allconnex Water operating expenditure indices and growth factors**

Cost Group	Cost Index		Growth Factors
	2011/12	2012/13	
Population			
Direct Labour	4.0%	4.0%	2.1% FY12, 3.6% FY13
Bulk Water	As per SEQ Water Grid Manager forecast costs		
Electricity	10.0%	10.0%	Aligned to percentage change in bulk water volumes
Chemicals	3.0%	3.0%	Aligned to percentage change in bulk water volumes
Other Costs	3.0%	3.0%	

Source: Allconnex Water Price Monitoring Information Return

Table 4-20 and Table 4-21 below summarises Allconnex Water's total operating cost from FY11 to FY13 for water and wastewater services. Operating costs for water and wastewater services are forecast to increase by 31% and 8% respectively. However, by excluding the pass-through costs for the supply of bulk water, operating costs for water services increase by 10%.

We note that Allconnex Water's original submission did not include costs against all of the cost categories listed in the information template. Subsequent to the submission, Allconnex Water has confirmed to us that cost categories left blank have been aggregated into other categories. For example, corporate costs and license and regulatory fees have been included in Materials and services.

Table 4-20 Allconnex Water forecast operating expenditure for water, FY11-13 ($000)

	2010/11	2011/12	2012/13
Bulk water costs	154,663.4	187,760.8	222,549.4
Retail operating costs:	-	-	-
Customer service and billing	-	-	-
Regulated demand management costs	-	-	-
Community service obligations	-	-	-
Distribution operating costs			
Employee expenses	23,829.3	25,480.9	27,665.3
Contractor expenses	1,653.6	937.8	120.4
GSL payments	-	-	-
Materials and services	35,360.4	34,749.0	36,236.3
License and regulatory fees	-	-	-
Natural resource management costs	-	-	-
Corporate costs	12,571.2	13,056.9	13,211.8
Total operating expenditure for water	228,078.0	261,985.5	299,783.2

Source: Allconnex Water Information Requirements Template

Table 4-21 Allconnex Water forecast operating expenditure for wastewater, FY11-13 ($000)

	2010/11	2011/12	2012/13
Bulk water costs	-	-	-
Retail operating costs:	-	-	-
Customer service and billing	-	-	-
Regulated demand management costs	-	-	-
Community service obligations	-	-	-
Distribution operating costs			
Employee expenses	36.935.0	38,958.5	41,720.8
Contractor expenses	1,677.7	967.1	155.3

	2010/11	2011/12	2012/13
GSL payments	-	-	-
Materials and services	69,628.6	71,017.8	76,250.8
License and regulatory fees	-	-	-
Natural resource management costs	-	-	-
Corporate costs	23,097.8	23,990.1	24,274.7
Total operating expenditure for water	131,339.2	134,933.5	142,401.6

Source: Allconnex Water Information Requirements Template

5.4.2. Operational costs definition

Operating expenditure can be broadly described as the day to day costs incurred by the Entity in delivering water and wastewater services to its customers.

These costs can be incurred from a range of activities. Some of these expenses are typical of any business, such as labour, office accommodation and other corporate overheads. Other costs are specific to the water and wastewater industry including:

- Bulk water - costs charged by the SEQ Bulk Water grid manager for the delivery of bulk water.
- Retail costs - expenditure related to customer enquiries billing and revenue collection.
- Operations and maintenance - materials and services necessary to ensure that water and wastewater infrastructure operate efficiently and effectively.
- Treatment - costs for the processes required to treat water and wastewater to ensure compliance with relevant health and environmental standards.
- License fees and regulatory compliance - paid to government departments and regulatory Authority's.

Accepted industry practice is for operating expenditure to be recovered from customers in the year that it is incurred. In contrast, the recovery of capital expenditure from customers is generally spread over many years. This means that from year to year operating expenditure will fluctuate according to current market conditions.

5.4.3. Adequacy of operational expenditure information provision for completion of operating expenditure templates

Following our review of the Allconnex Water' submission we conclude that the information return substantially complies with the Authority's requirements. Aside from minor information gaps we consider the submission to be suitable for assessment of reasonableness.

The key points are:

- Costs have not been allocated against all of the categories identified in the template. Allconnex Water has confirmed that costs for categories such as Customer service, License and regulatory fees have been

included in other categories. A recommendation for future submissions is to ensure costs are assigned against all categories.

- As this is the first year of operation for the Entities, forecast budgets have been provided for the interim price monitoring period (FY2011-13) only. This is in line with the Authority's reporting requirements for the interim monitoring period.
- Expenditure for activities across the three geographic areas shows no significant step change in expenditure for the monitoring period.
- Details of third party transactions (names of parties, values of transactions, basis of payments) are included in the return. Allconnex Water was requested to clarify the categories where the payments for these services appear in the price monitoring returns. Similarly for related party transactions.

For further detail on the information provided by Allconnex Water in the information return please refer to Appendix B.4.

5.4.4. Operational expenditure data selection

The Authority advised us that a representative sample is to include:

> *"the top 10% of retail/distribution operating costs by value in each activity and geographic area, over the forecast period and for 2010/11. The sample should also include at least 50% of the total retail/distribution operating expenditure over the forecast period and for 2010/11 – if not, an additional random sample of assets comprising 30% (by number) of remaining assets is required."*

Bulk water costs of $565M contribute a significant portion of the overall Operating Costs for Allconnex Water. The prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are not controllable by Allconnex Water; hence, these have been excluded from the pool of costs from which the sample will be selected.

The representative sample for Operating Costs was selected as:

- Employee Costs
- Corporate Costs
- Electricity
- Chemicals

Together, these account for 58% of the Operating Costs for FY11 to FY13, excluding bulk water costs. Table 4-22 details the percentage of Operating Costs represented by the sample for each geographic area and activity.

- **Table 4-22 Allconnex Water sample as a percentage of total operating costs**

Geographic area	Water activity (excl. Bulk Water	Wastewater activity
Gold Coast	56%	61%
Logan	54%	55%
Redland	62%	55%

5.4.5. Operational expenditure assessment method

The operating expenditure assessment was carried out in two stages:

- Stage 1 – Identification and collation of information
- Stage 2 - Assessment of reasonableness

These stages are describes as below.

Stage 1 – Identification and collation of information

Following the selection of a representative sample of operating cost categories, Stage 1 involved the identification of information required for the review. A Request for Information (RFI) was issued for each project indicating the type of information required.

Stage 2 – Assessment of reasonableness

Our approach to assessing the Entities' operating expenditure is to answer the following three questions:

- Do the policies and procedures used to develop the operating budgets represent good industry practice?
- Can the operating costs in aggregate and major cost categories be considered reasonable?
- Are the necessary systems and programmes in place to provide the Authority in future submissions with sufficient information for informed pricing and reporting?

From our experience working with several water utilities in Australia and around the world policies and procedures for the development of operating expenditure budgets that reflect *good industry practice* would ensure that:

- a consistent approach and standards are used across the entire area of operation
- the budget process was approved by senior management
- the process includes an evaluation of actual expenditure against budgeted expenditure for previous years to identify the underlying causes of overspend or underspend and to ensure that poor assumptions are not carried forward to future years
- where sufficient data is available zero-base budgets are developed periodically to verify forecast expenditure
- protocols for changes and communications have been defined
- parameters that apply across the organisation have been identified

- a programme for budget review and approval are in place
- any changes made during the review process are clearly defined with justifications and communicated to the relevant parties
- final budgets have been approved by senior management

For expenditure to be considered *reasonable* the Entities will need to demonstrate that:

- changes to the allocation of operation costs on a geographic basis or activity basis over the monitoring period are be backed by sound reasoning
- aggregate operation costs for water and wastewater services are comparable with other Australian water utilities of similar size
- cost categories that are driven by volumes or quantities have forecast costs using growth actors in line with population growth, overall water demands, or changes in the number of customers
- cost escalation indices are relevant to the cost category being considered and are in line with historic trends and related industry projections

Our assessment recognises that the Entities are newly formed and that the information systems and processes currently in place may not be the same of those expected in a mature regulated industry. Moving forward, we consider that the Entities will need to show that they have:

- developed operational budgets from fully auditable financial models that accurately reflect growth, and forecast cost escalations
- costs can be allocated by activity, geographic areas, asset class and by cost driver to enable as per the Authority's Information Requirement Template.

5.4.6. Workforce Agreement

The *SEQ distribution and Retail Water Reform: Workforce Framework 2009* (2009, Queensland Government) was established by the Councils of Mayors (SEQ) to assist councils, employees and the new water Entities during the water reform process. The objective of the framework is to establish the terms and conditions of employment that will be applied during the water reforms.

The framework applies to both employees transferred to a new water Entity from a council, and those retained by council to undertake Service Level agreements (SLA) on behalf of a new water Entity. The framework expires three years from when either the employee transfers to the new Entity, the employee is notified they will remain with Council, or 30 June 2013 for a new employee who joins the new water Entity after 1 July 2010.

The framework is underpinned by the following principles:

- Public ownership of water assets is to be retained
- Labour savings are not a driver for reform

- Staff and unions have been, and will continue to be engaged throughout the reforms
- There will be no forced redundancies of employees affected by reforms
- There will be no forced relocations for 12 months from the date of transfer
- Workers' entitlements and conditions will be protected
- The terms and conditions of employment contracts will be honoured

The Queensland Government has also enacted legislation to ensure that employees transferred from councils to the new water Entities are protected (*South-East Queensland Water (Distribution and Retail Restructuring) and Natural Resources Provisions Act 2009 and Amendments*).

In undertaking the assessment of Allconnex Water operating costs we accept that the Workforce Framework imposes constraints on the Entities, over and above those expected with other businesses.

The most significant constraint is the "no forced redundancies" principle. The framework ensures that there are no forced redundancies or no overall loss of employment directly as a result of the water reforms within the councils of the new water Entities during the reform period (1 July 2010 to 30 June 2013).

The framework limits the degree that efficiency of labour can be achieved from FY11 to FY13. Where the transferred number of employees results in a surplus number of employees in the new water Entities organisational structure the CEO of the new Entity is to consider retraining or redeployment options.

The identified related costs arising from the Framework include:

- New industrial agreements (within 12 months of the transfer of employees)
- Accrued entitlements are to be transferred to employees (long service leave, annual leave, sick leave)
- Lump sum or employee salary in lieu of motor vehicle or other entitlements
- Appropriate and reasonable training and assistance to transferring employees
- Redeployed to a lower level, salary maintained for 12 months
- Compensation for excessive travel distance (relocation costs or greater than 5km from previous workplace)

5.4.7. Commentary on business processes for operational expenditure budgeting

We have reviewed the guidelines for the preparation of 2010/11 Allconnex Water budgets. The document provides a comprehensive guide to the development and approval process for the operating budgets including:

- Outline of the budget process
- Who has approved the process
- Responsibilities
- Budget approval and development
- Protocols for changes and transfers to other Cost centres due to the restructure

- Parameters to be applied (eg CPI)
- Review and approval programme
- Schedules to be produced

The operational budgets are underpinned by Allconnex Water's Enterprise Financial Model (EFM). The chemical and electricity components in particular, use historical analysis of resource usage and growth factors to forecast chemical and electricity usage in subsequent years.

Our examination of the EFM has shown that model sufficiently represents growth and cost escalation indices. An allowance for gains in efficiency over the next three years through synergies was in the model. The integration of the three council water businesses, streamlining of systems and standards was identified by Allconnex as a key undertaking in their submission.

Conclusion

The operation expenditure budget process use by Allconnex Water represents good industry practice.

5.4.8. Summary of assessment of Allconnex Water operational expenditure

5.4.8.1. Costs in aggregate

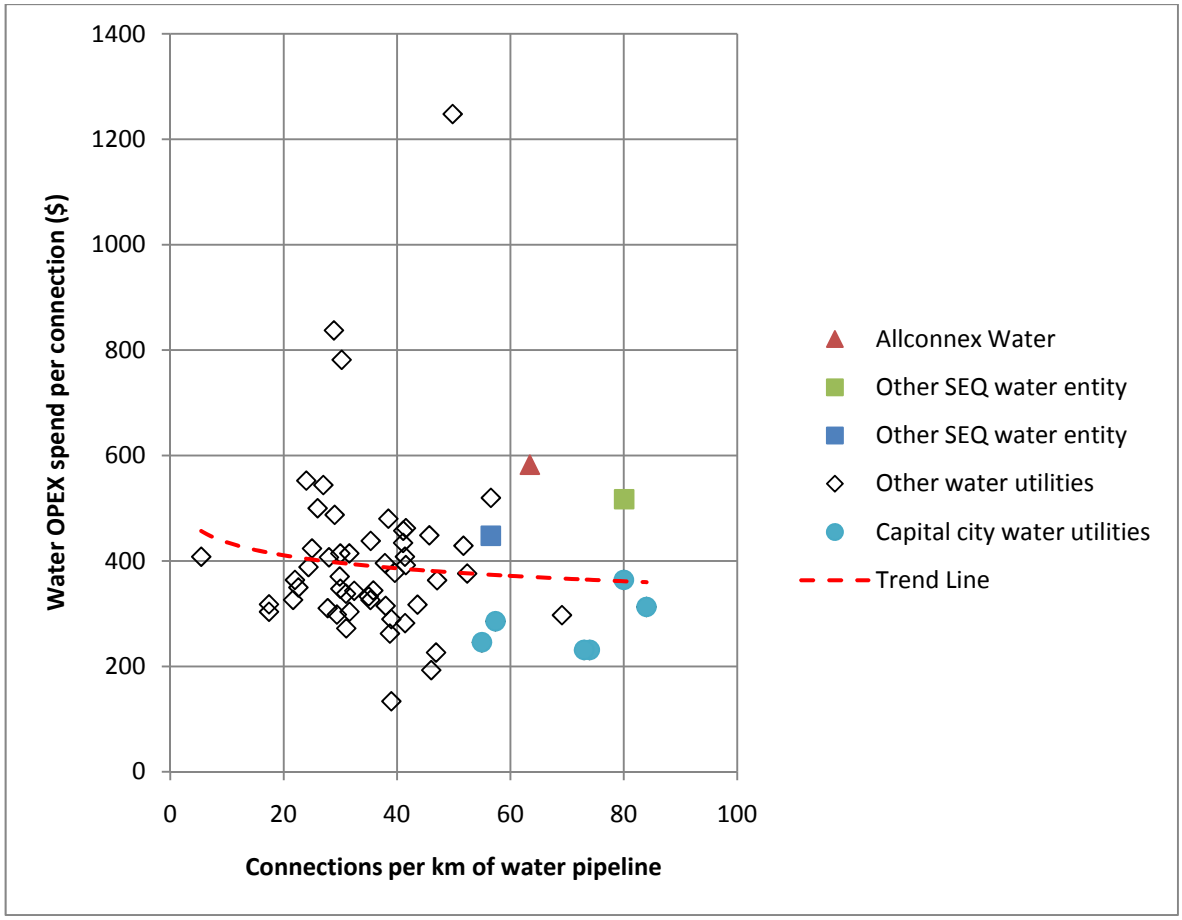
Total operational expenditure

Allconnex Water's submission to the Authority shows an increase in operating expenditure for water and wastewater services from $219.4M in FY09 to an estimated $442.2M in FY13. This equates to an average annual increase of 19.1% for the period, well above inflation. Allconnex Water has indicated the key cost drivers are:

- Bulk water unit cost increases, noted as a cost that is not controllable by Allconnex Water;
- Controllable costs where Allconnex Water has some degree of discretion including labour, services, materials and electricity.

As we discuss below, we consider that the above justifications are appropriate and sufficient to explain the increase in expenditure.

When assessing the aggregate operation costs comparing operating expenditure per connection will tend to favour the larger utilities that have a large customer base. Likewise, comparing operating expenditure per pipeline length will tend to favour smaller utilities. To be able to show the relative performance of Allconnex Water's operating expenditure with their peers a "two dimensional" normalisation was used to develop a cost curve for water and wastewater services.



Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Unitywater/Allconnex Water Information Requirements template.

- **Figure 4-12 Comparison of Allconnex Water's FY11 operating expenditure spend on water with other Australian water utilities**

Figure 4-12 compares the operating expenditure on water services for a range of Australian water utilities. Data was sourced from National Water Commission which reports 2008 expenditures for several water utilities around Australia. A CPI index (*ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities)* was applied to the data to adjust the costs to 2010/11 dollars. Water utilities from other Australian capital cities have also been highlighted.

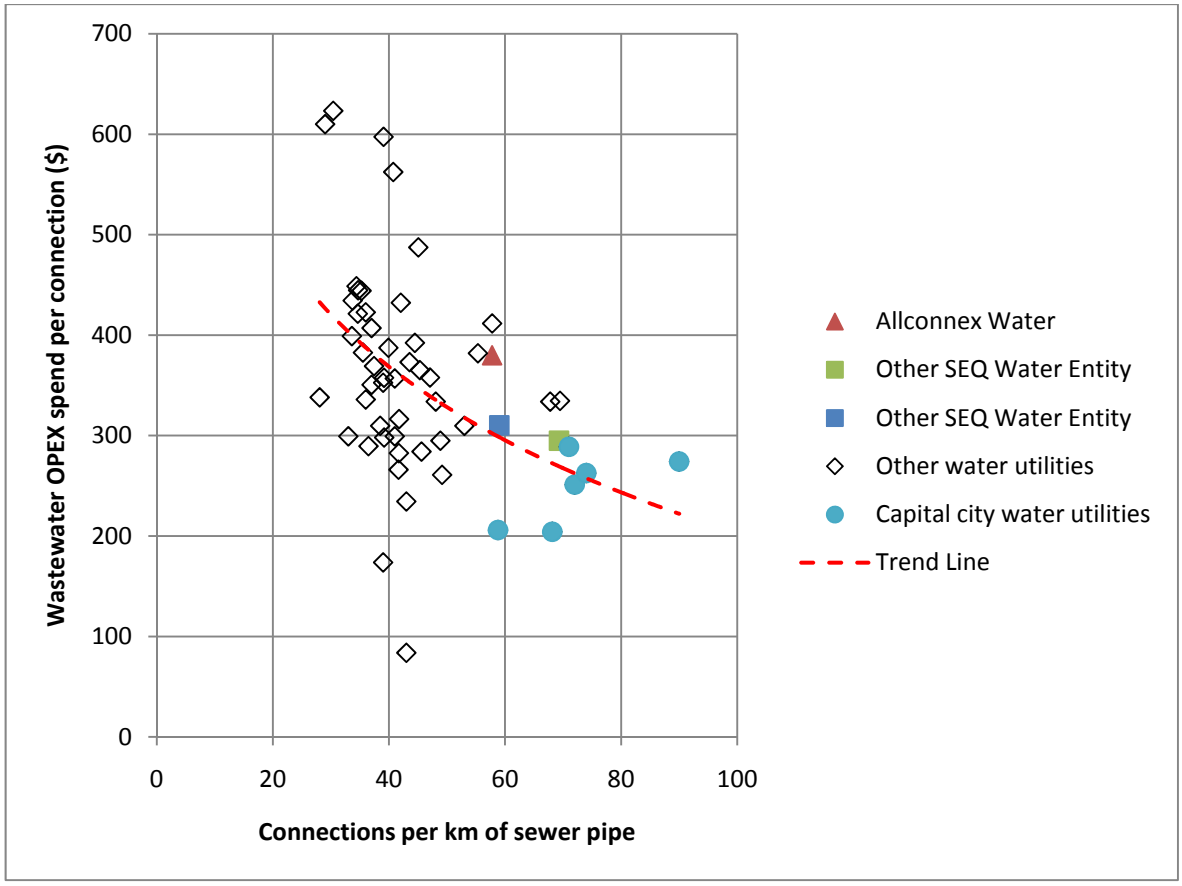
The chart shows that Allconnex Water's operational costs, as with the other new SEQ water Entities, are generally higher than those of similar sized water Authority's. We consider that this is due in part to the pass-through cost for bulk water. As shown in Table 4-23, bulk water costs for Allconnex Water's operating area ($0.93-1.84/kL) are significantly higher than bulk water charges in Sydney ($0.59/kL) and Melbourne ($0.67-0.72/kL).

Table 4-23 Comparison of bulk water costs

Water Utility/area	Bulk water cost ($/kL)	Controllable Water operating expenditure (FY11) ($/connection)
Gold Coast	1.69	
Redland	0.93	188
Logan	1.84	
Queensland Urban Utilities	1.45-2.09	147
Unitywater	1.07-1.65	173
Sydney Water Corporation	0.58	139
City West Water	0.72	130
South East Water	0.70	97
Yarra Valley Water	0.67	168

Source: Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template; Essential Services Commission Review for City West Water, South East Water, Yarra Valley Water; IPART Review of Sydney Water Corporation, Sydney Catchment Authority.

Although a full set of comparative data for all Australian water utilities is not available a comparison was made for the controllable operating expenditure (ie. total operating expenditure less bulk water charges) for the three new SEQ water Entities, and metropolitan water utilities in Sydney and Melbourne. On a per connection basis, Allconnex Water's controllable operating expenditure is higher than its interstate peers.



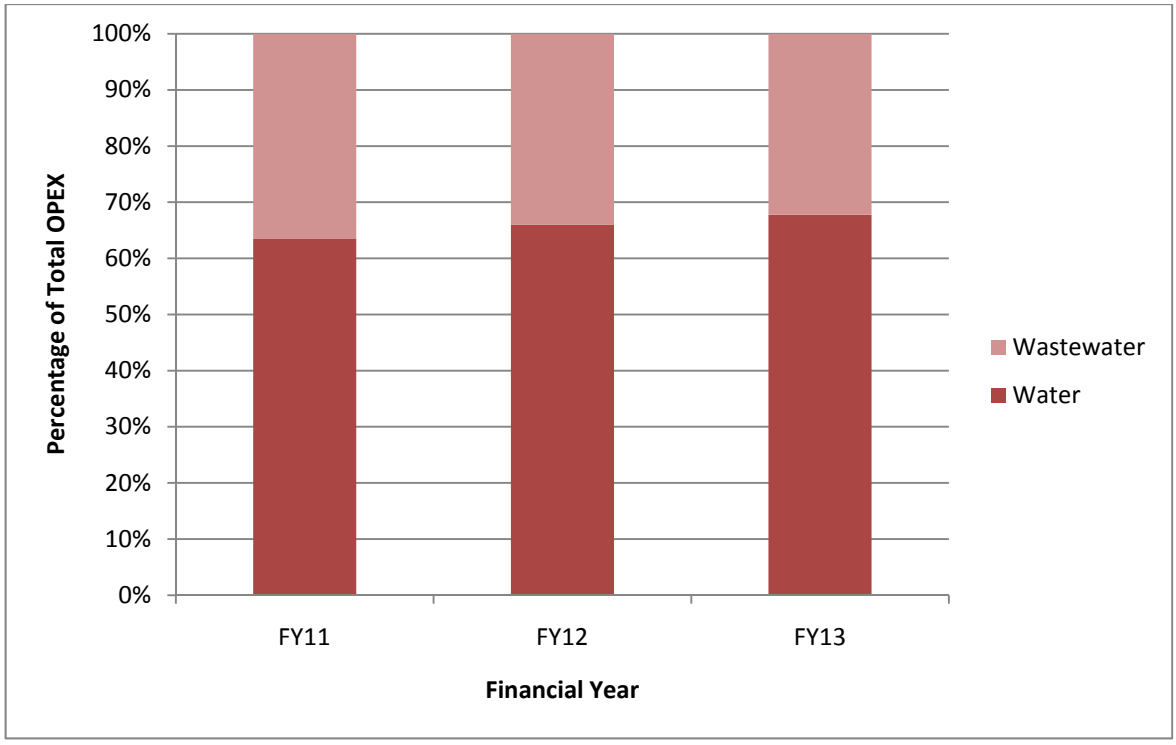
Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

- **Figure 4-13 Comparison of Allconnex Water's operating expenditure on wastewater with other Australian water utilities**

A similar comparison of wastewater operational costs is made in Figure 4-13. For the wastewater activity treatment costs is a significant cost driver in addition to the network size and number of customers. Treatment costs will vary depending on the number of treatment plants, size of treatment plants and the level of treatment required or recycled water schemes. The variance in treatment costs is shown by scatter of data points from the trend line. These variances in treatment, including the Pimpama Coomera recycled water scheme operated by Allconnex, contribute to operational costs for Allconnex Water appearing above the trend line in the chart.

Operating expenditure by activity

Allconnex Water undertakes three activities: water services, wastewater services and non-regulated services. Figure 4-14 shows the proportion of operating costs for water and wastewater services for Allconnex Water.



Source: Allconnex Water Information Requirements Template

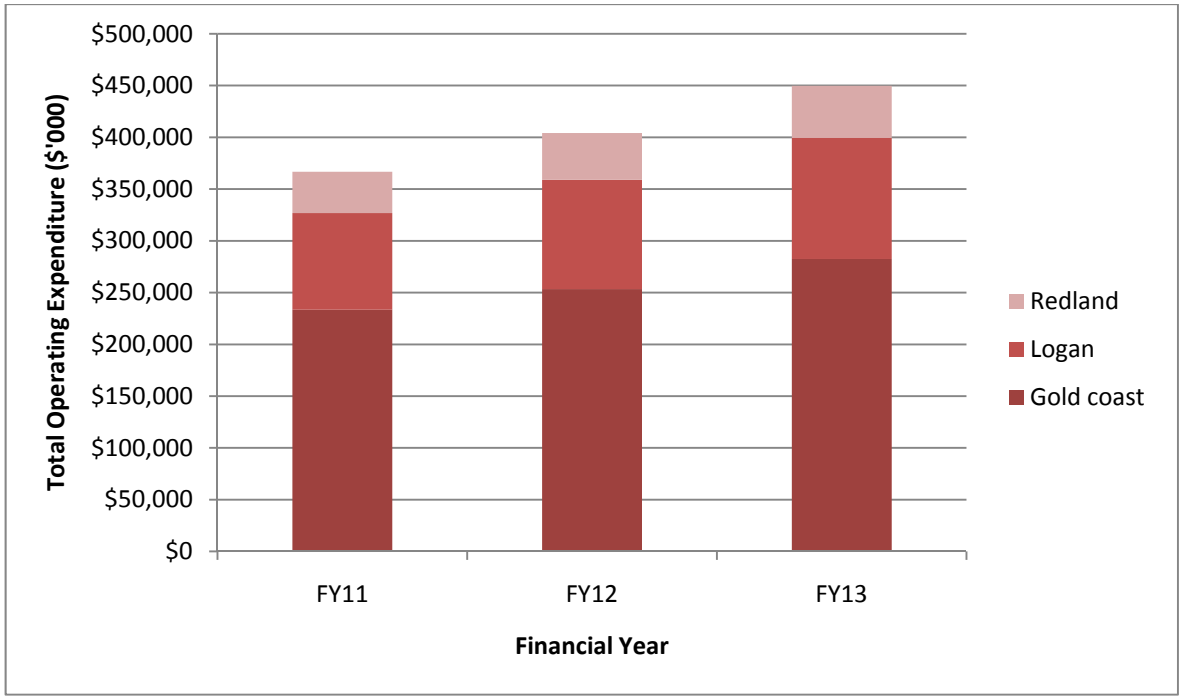
- **Figure 4-14 Allconnex Water operating expenditure by activity for FY11-13**

As noted in the National Water Commission's *National Performance Report*, the trend is for larger utilities (ie those with more than 100,000 connections) to spend relatively more on water operational costs than for wastewater. Allconnex Water's operating expenditure profile for FY11 to FY13 is consistent with this trend.

The increasing proportion of operating expenditure on water services over the interim monitoring period can be attributed to the expenditure on bulk water increasing at a greater rate than the other operating expenditure cost categories.

Operating expenditure by geographic area

Of the three former council areas that make up Allconnex Water's area of operation, Gold Coast has by far the greatest population, and hence, is where the majority of the operating expenses are budgeted for as set out in Figure 4-15.



Source: Allconnex Water Information Requirements Template

- **Figure 4-15 Allconnex Water operating expenditure for FY11-13 by geographic area**

The chart shows that the relative proportion of expenditure between the three geographic areas remain consistent throughout the interim price monitoring period.

Conclusion

When considered in aggregate, Allconnex Water's operating costs for water and wastewater services are reasonable from FY11 to FY13. However, it is noted that both the operational cost for wastewater and the controllable costs for water services are higher than those of other Australian Water Utilities of similar size.

The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven, in large part, by the significant increase in bulk water costs over previous years.

No significant change in the geographic allocation of operating expenditure was identified.

5.4.8.2. Major operational costs

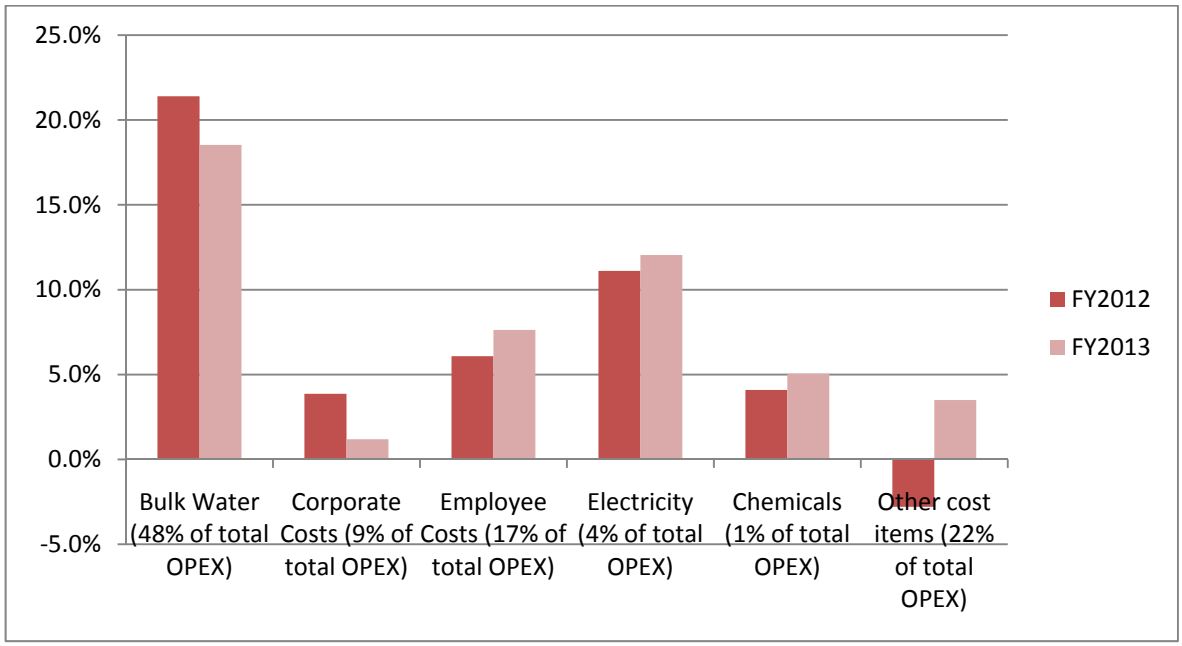
The operating programmes or cost centres that comprise the greatest proportion of operating expenditure for the interim price monitoring period, that is, from 1 July 2010 to 30 June 2013, are summarised below and briefly discussed in the following sections of the report. The cost items account for 77% of overall operating costs for the period as set out in Table 4-24.

Table 4-24 Allconnex Water major operating costs

Cost Centre	FY2011	FY2012	FY2013
Major cost items:			
Bulk water	154.7M	187.8M	222.5M
Corporate costs	36.5M	37.9M	38.3M
Employee costs	64.1M	68.0M	73.2M
Electricity	13.4M	14.9M	16.7M
Chemicals	4.1M	4.3M	4.5M
Other cost items	93.9M	91.3M	94.6M
TOTAL	366.7M	404.2M	449.8M

Source: Allconnex Water Information Requirements Template

The figure below shows the year on year percentage increase for each of the major cost categories. These percentages are made up from both cost escalations and growth factors. Allconnex Water's costs relating to bulk water are clearly increasing at a greater rate than those of the other operating costs.



Source: Allconnex Water Information Requirements Template

Figure 4-16 Cost drivers for water and wastewater operating costs FY11-12

Bulk water costs

The purchase of bulk water from the SEQ Water Grid Manager comprises a significant portion of Allconnex Water's operating expenditure for 20010/11 and for the forecast period. From 2008/9 to 2012/13 the expenditure on bulk water storage, treatment and delivery is seen to increase by 172%, or $140.7M. The increase can be attributed to both an increase in demand and increases in unit costs for bulk water.

The prices charged by SEQ water have been set by the Queensland government and are not within the control of Allconnex Water. As such, our analysis is limited to:

- Confirming that costs are carried through to the consumer in full
- Confirming that the budget expenditure is congruent with projected demands and unit prices.

An examination of the Allconnex Water tariff structure confirms that the costs charged by the SEQ water grid manager for bulk water storage, treatment and delivery is consistent with the bulk water rate charged to customers.

Table 4-25 below, shows the calculation of bulk water costs for the geographic areas that make up the Allconnex Water operating area. The calculation establishes that demands multiplied by the bulk water unit prices are consistent with the budgeted bulk water expense.

Table 4-25 Allconnex Water bulk water costs for FY11

Geographic Area	Demand (ML)	Unit Price ($/kL)	Demand x Unit Price ($)	Budgeted Bulk Water Cost ($)
Gold Coast	59,547	1.685	100.3M	100.3M
Logan	22,709	1.843	41.9M	42.0M
Redland	13,147	0.932	12.3M	12.3M

Source: Allconnex Water Information Requirements Template, Queensland Water Commission

Conclusion

Allconnex Water's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

Employee costs

In its completed information template, Allconnex Water has identified an increase in labour costs from $64.1M in FY11 to $73.2M in FY13. In nominal terms this represents a 6.1% increase in FY12, and 7.6% increase in FY13.

Allconnex Water has identified labour costs as:

- Salaries and wages
- Overtime
- Temporary agency staff

- Employee incentive schemes
- Staff training
- Fringe benefit taxes
- Payroll taxes
- Superannuation contributions
- Workers compensation
- Annual, long service and sick leave
- Other labour related costs

We have reviewed these categories and confirm that these are consistent with the Authority's definition of Employee Costs as noted in the Information Requirements for 2010/11.

The increase in employee costs can be attributed to both an increase in employee numbers and cost escalation for labour.

Cost escalation for labour costs have been identified in the Allconnex Water Price Monitoring Submission as 4.0% and 4.0% for FY12 and FY13. Hence, the nominated growth in employee numbers was calculated as 2.1% in FY12 and 3.6% in FY13.

The *Forecast for labour costs growth March 2010 Report* (2010, Access Economics) was commissioned by the Australasian Electricity Regulator (AER) and provides labour indices for the Electricity, Gas, Water and Waste services industry to 2017-18 for New South Wales, Victoria, Queensland, South Australia, the ACT and Australia in aggregate. The forecast specific to Queensland utilities have been used to benchmark labour costs for the Entities, and are presented in Table 4-26 below. The *Labour Price Index for the hourly rates for public servants in the Electricity, Gas, Water and Waste Services* (2010, Australian Bureau of Statistics) are also presented for comparison with historical trends in the industry.

Table 4-26 Comparison of labour cost escalation indices

Year	Allconnex Water	Australian Energy Regulator	ABS, Labour Price Index
FY09	-	4.9%	4.38%
FY10	-	3.6%	4.40%
FY11	-	3.8%	
FY12	4.0%	4.2%	
FY13	4.0%	3.9%	

Source: Allconnex Water Price Monitoring Submission, Australian Energy Regulator, Australian Bureau of Statistics

We observe from the above table that Allconnex Water labour cost indices are in line with both the AER forecast indices and the historic trends as derived from the Labour Price Index. We also note that while the *Workforce*

Framework constrains the number of employees within the Entity, no such constraint exists for the labour cost escalation. That is, the Framework does not provide any guaranteed increase in wage, salary or employee benefits. These are to be negotiated through the Employment Bargaining Agreement process.

An investigation of the reasonableness of the cost categories that encompass employee costs (eg the reasonableness of superannuation contributions, staff training programmes) has not been undertaken as part of the assessment of the reasonableness of operating costs.

Conclusion

The labour cost indices used by Allconnex Water to determine employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.

Corporate costs

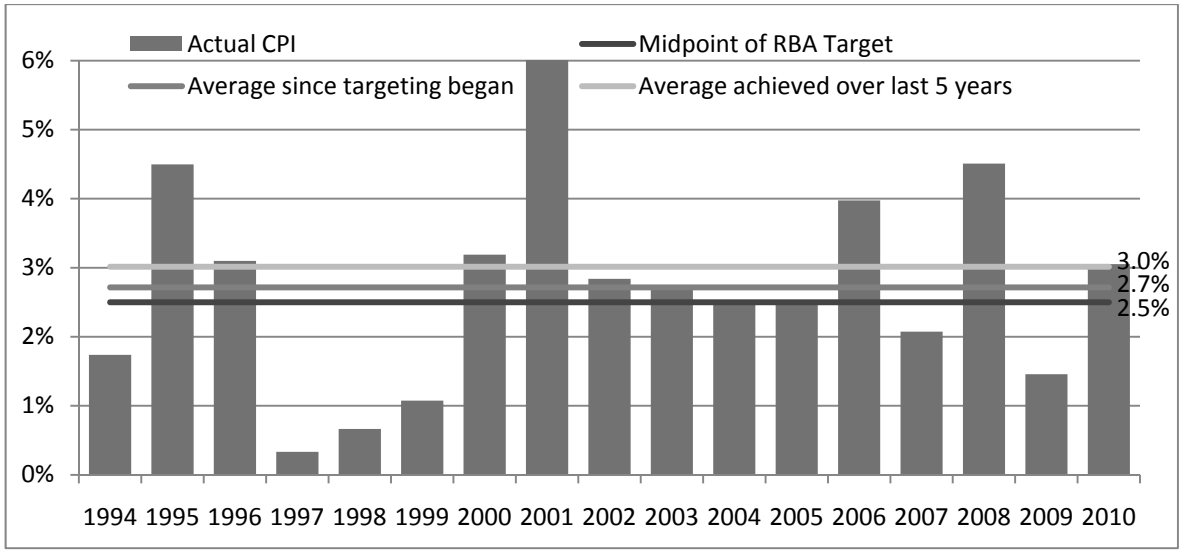
Corporate costs account for 10.0% of overall operating costs in FY11, reducing to 8.5% in FY13. Corporate costs include such items as CEO office, personnel cost in the corporate division and support staff, finance, marketing, information technology, legal &governance, training, human resources and payroll. These items are consistent with the definition of corporate costs in the SEQ Interim Price Monitoring Information Requirements for 2010/11, July 2010.

Corporate costs are not driven by growth in customers or demand; hence no growth factors have been applied.

Instead, an annual cost escalation of 3.0%, in line with the consumer price index (CPI) was allowed for. In seeking to understand the overall reasonableness of such a CPI forecast, we established that since first targeting its current range of 2-3% in 1993, the RBA has historically achieved an *actual* average Year to June CPI of 2.7%[14], and over the most recent five years the actual CPI achieved during this targeting regime has resulted in an average Year to June CPI of 3%, both of which are higher than the expected midpoint of the target range of 2.5%.

This “above the midpoint of the RBA’s targeting range” historic CPI result is illustrated through Figure 4-17 below.

[14] ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities.



Source: Australian Bureau of Statistics

- **Figure 4-17 RBA CPI targeting results**

From the above analysis we consider Allconnex Water's adopted general cost escalation of 3.0% to be reasonable.

Several Service Level Agreements (SLA) are included in Corporate Cost category. These services are generally a continuation of pre-existing systems and services to enable an orderly transition to Allconnex Water. They include: Financial accounting; payroll services; development and management charges; call centre; inventory services and depot sites and head office accommodation. These costs are forecast to reduce as develops its own systems and becomes less reliant on legacy systems and services from Councils.

Conclusion

Allconnex Water's adopted general cost escalation of 3.0% is a reasonable estimation. No revisions to the Information Requirement Template for Corporate Costs are proposed.

Electricity costs

Allconnex Water uses electricity for their water and wastewater pumping, treatment operations as well as corporate offices.

From its Information Requirement Template we note Allconnex Water has budgeted for electricity costs of $13.4M in FY11, increasing to $16.7M in FY13. Electricity is supplied to Allconnex Water by Origin Energy, Integral Energy, Country Energy and Energex through contracts negotiated by the previously. Forecast expenditure for electricity is summarised in Table 4-27 below.

Table 4-27 Allconnex forecast electricity costs

Year	Water	Wastewater	Total
FY11	1.83M	11.61M	13.44M
FY12	2.06M	12.87M	14.93M
FY13	2.32M	14.41M	16.73M

Source: Allconnex Enterprise Financial Model

We have reviewed the electricity model used by Allconnex Water to develop the FY11 and subsequent budgets. The model provides a calculation of electricity costs by taking into account forecast water and wastewater flows and electricity cost escalation of 10% annually.

For large water utilities such as Allconnex Water the majority of electricity is consumed by infrastructure that pumps water and wastewater or treatment processes, and will increase or decrease in proportion to the amount of water or wastewater involved. Electricity used for corporate offices or depots would be minor. That is, for the purpose of this evaluation it is reasonable to assume that electricity costs will reflect the increase or decrease in the volume of water and wastewater being pumped or processed.

Table 4-28 compares the growth factors used by Allconnex Water (nominal growth less cost escalation) with the revised drinking water demand growth rates. Allconnex Water is not proposing to introduce volumetric charges for wastewater; subsequently there are no forecasts available. Instead, the growth in wastewater connections is presented for comparison.

Table 4-28 Electricity growth factors

	Allconnex Water growth rate used for electricity usage	Drinking water demand growth	Wastewater connections growth
FY12	1.1%	2.6%	1.4%
FY13	2.0%	2.3%	2.4%

Source: Allconnex Enterprise financial Model, Frontier Economics Assessment of projected demand

We consider the growth rate to be reasonable on the following basis:

- Opportunities exist for efficiency gains in processes due to the amalgamation of the three councils water businesses
- The location of growth within particular water zones or wastewater catchments is not known. Growth may be located in areas with less energy intensive transfer and treatment requirements (less pumping stations, more efficient treatment plants), meaning that electricity demand will increase less than overall growth.
- The growth projections used to calculate electricity costs are conservative.

To allow benchmarking of the price escalation two sets of data have been used. Under the Electricity Act 1994, the rate of change in the Benchmark Retail Cost Index (BRCI) is used to adjust notified electricity prices each year. Under delegated authority from the Minister, Queensland Competition Authority has released a final determination of the BRCI for FY09, FY10 and FY11. The Australian Bureau of Statistics Consumer Price Index for electricity in Brisbane is also used. These are set out in Table 4-29.

Table 4-29 Comparison of electricity cost escalation indices

Year	Allconnex Water	BRCI	ABS CPI for electricity in Brisbane
FY09	-	5.38	11.6
FY10	-	11.82	8.3
FY11	10.0	13.29	15.5
FY12	10.0		
FY13	10.0		

Source: Allconnex Enterprise Financial Model, Benchmark Retail Cost Index for Electricity, Australian Bureau of Statistics

Allconnex Water's adopted price escalation for electricity in FY11 to FY13 of 10% is consistent with both the mean BRCI (10%) and CPI (12%) for electricity for the past three years and is considered reasonable.

Conclusion

The electricity cost indices and growth factors used by Allconnex Water to electricity costs are considered reasonable.

Chemicals

Chemicals are used by Allconnex Water to treat drinking water before deliver delivery to customers, and for wastewater before being discharged into the environment. The need for chemical use is dictated by drinking water standards and compliance with operational licenses for discharge of wastewater. As with electricity, costs for chemicals are largely volume related, that is they increase with increasing volumes of water or wastewater treated.

Allconnex Water has noted in its submission the supply of chemicals in the register of Third Party Transactions. This contract was inherited from the former water Council water businesses that were amalgamated to create Allconnex Water.

Expenditure on chemicals is forecast to increase from $4.1M in FY11 to $4.5M in FY13. In calculating these forecasts Allconnex Water have used their general price escalation index of 3.0%.

For benchmarking of the price escalation two sets of data have been used.

- the producer price index (PPI) for chemical and chemical product manufacture sourced from the Australian bureau of Statistics

- the consumer price index (CPI), weighted average of eight capital cities also produced by the Australian Bureau of Statistics

Refer to Table 4-30.

Table 4-30 Chemical cost escalation indices

Year	Allconnex Water	PPI	CPI
FY08	-	6.3%	4.5%
FY09	-	12.9%	1.5%
FY10	3.0%	-20.0%	3.1%
FY11	3.0%		
FY12	3.0%		

Source: Allconnex Enterprise Financial Model, Australian Bureau of Statistics

The producer price index is very volatile and hence does not provide a reliable indication of market trends source to forecast chemical costs in the short to medium term. It is also recognised that the index collates data for a wide range of chemical manufacture, not just those specific to the water industry. Hence a direct comparison of Allconnex Water's proposed cost escalation with the PPI has not been made.

We have provided further comment on the appropriateness of Allconnex Water's general cost escalation index in a preceding section of this report.

Transport costs are recognised as a significant cost component for chemicals. The amalgamation of the three former Council water businesses increases the purchasing power of Allconnex Water with potential efficiency gains or reduction in cost through economies of scale through the consolidation of supplier contracts and purchasing power. Indeed, economies of scale are one of the drivers behind the water reforms themselves. When analysing Allconnex Water's Financial Model we identified cost saving through synergies that are forecast beyond FY13. It is our determination that these opportunities exist in FY12 and FY13 and should be allowed for in the forecast budgets.

Conclusion

It is our determination that Allconnex Water's proposed cost escalation indices for chemical costs are not reasonable and we have revised to 2.5% for FY12 and FY13. This cost escalation allows for unit prices to increase in line with the upper CPI bound, and 0.5% gain through efficiencies and economies of scale

5.4.8.3. Impact from revised capital expenditure and growth

The revised capital expenditure programme will have an impact on the operating expenditure budget. The impact on operating expenditure from each of the capital expenditure classifications are briefly summarised below.

- Growth –capital expenditure associated with a new asset or increasing the capacity of existing assets would expect to increase operating costs due to the addition of new assets and processes.
- Renewal – capital expenditure associated with replacing existing assets and generally maintaining service levels would expect to yield a reduction in operating costs
- Improvement – capital expenditure associated with improving service levels will generally lead to an increase in operating costs
- Compliance – capital expenditure associated with meeting legislative obligations will generally require an increase in operating costs

At this stage we do not have sufficient data to provide the definitive financial impact that the exclusion of capital expenditure projects will have. However, when compared to the overall size of the water and wastewater networks the excluded capital works projects are very small. It is therefore reasonable to assume that the impact to the operating expenditure budget for FY11 to FY13 will be very minor.

As stated in the section on capital expenditure above, the reclassification of some smaller capital expenditure projects as operating expenditure may also be worth investigating in the future.

Revised growth

We have reviewed the *SEQ Interim Price Monitoring: Assessment of Projected Demand* (Frontier Economics, 2010). We note that this is the draft version of this report, and that subsequent changes may be made to the report's recommendations. We have contacted Frontier Economics to determine whether these recommendations are likely to be updated. At the time of writing Frontier Economics was not able to confirm whether or not their recommendations would change following review of their draft report. As stated by Frontier Economics "*the outcome of demand forecasting is a set of projections upon which capital and operating expenditure requirements are determined*".

One of Frontier Economics key recommendations is to increase the predicted properties connected to water and wastewater services in line with PIFU data. These increases are predicted by activity (water, wastewater) geographic area (eg Gold Coast, Logan, and Redland) and by type (residential and business). For Allconnex the increase is small – approximately between 1-3%. These increases have implications for capital expenditure and volumetric-based operating expenditure.

It is logical to assume that the result of this is the recommended increase in demand would be that operating expenditure that is driven by volume (ie. bulk water, electricity and chemical) would also need to increase.

In our assessment of electricity and chemicals cost we have used Frontier Economics revised forecasts. The significant impact to the Information Requirement Template is in the Bulk Water cost category.

5.4.8.4. Expenditure considered not to be reasonable

From our analysis of Allconnex Water's operating costs for FY11 to FY13 we consider the adopted cost escalation of 3.0% for chemical costs is not reasonable. We have revised the cost escalation index for chemical costs to 2.5% to allow for small gains in efficiencies and economies of scale.

5.4.8.5. Information systems and future returns

In its submission, Allconnex Water notes that:

> *"As expected with a "merger" of three large businesses, there are a multitude of tasks and consolidation that will need to be completed over the coming years. This may include, but is not limited to: Integrated Standards; Financial Practices; Systems; Infrastructure Planning; Regulation and Pricing; Procedures and Policies; and, Enterprise Bargaining. The focus will be on consistency and efficiency that will take Allconnex Water forward."*

More specifically, Allconnex Water has advised that the forward works program to progress the business to be able to fully complete the information templates by 2013 includes:

- Possible harmonisation of service standards and desired standards of service
- Procurement efficiencies
- Asset management systems
- Finance systems
- Standardised budgeting and project justification
- Enterprise resource planning (ERP) system
- Customer impact assessment of possible tariff harmonisation (district pricing vs. service area pricing)
- IT systems
- NetServ plan
- Review non-core charges
- Regulatory readiness program

We consider that the priorities for information returns for the 2011-12 submission relating to the operating expenditure issues addressed in this report should include:

- updating the EFM to reconcile with QCA information requirements especially the disaggregation between regulated and non-regulated assets, revenue and costs.
- more transparent and consistent information about the allocation of costs and revenue between regulated and non-regulated activities and within regulated activities including the basis for the allocation of costs.

It is expected that there will be overlaps between the systems required to comply with the information requirements, and therefore the prioritisation may be adjusted for the sake of efficiency.

5.4.9. Summary of analysis of operational expenditure for Allconnex Water

The following key conclusions have been made from the analysis of Allconnex Water's operational expenditure forecast:

- When considered in aggregate, Allconnex Water's operating costs for water and wastewater services are considered reasonable from FY11 to FY13. However, it is noted that both the operational cost for wastewater and the controllable costs for water services are higher than those of other Australian Water Utilities of similar size. The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs. No significant change in the geographic allocation of operating expenditure was identified.
- The labour cost indices used by Allconnex Water to calculate employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.
- The electricity cost indices and growth factors used by Allconnex Water to electricity costs are considered reasonable. No revisions to the Information Requirement Template for Electricity Costs are proposed.
- We consider Allconnex Water's adopted cost escalation for chemical costs is not reasonable. We have revised the cost escalation index for chemical costs to 2.5% to allow for gains in efficiencies and economies of scale.

Our additional findings are as follows:

- The operation expenditure budget process use by Allconnex Water represents good industry practice.
- Allconnex Water's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.
- Allconnex Water's adopted general cost escalation of 3.0% for corporate costs is a reasonable estimation. No revisions to the Information Requirement Template for Corporate Costs are proposed.

5.4.10. Proposed revised template

The template was amended to incorporate the conclusions from this analysis in addition to the revised demands as reported by Frontier Consulting.

5.5. Overall summary for capital expenditure and operational expenditure

In summary we have found Allconnex Water's submission to the Authority to be substantially complying.

We have identified a representative sample of 13 projects. Of this sample, 11 projects were assessed by us against the Authority's definitions of prudency and efficiency, including the standards of work, scope of work and the costs. Based on our review, the capital expenditure for these projects for the 2010/11 financial year is prudent and efficient.

For the following four projects continuing in 2011/12 and 2012/13, insufficient information was provided to assess the prudency and efficiency of the projects.

- Merrimac West Stage 2 WW Network Augmentation
- Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
- Treatment Plant Future Misc Cap items Estimate
- Pump Station No. 61

We believe that the level of information provided for this review is consistent with the stage of development for each project. In future, it is recommended that further information is provided regarding the scope of works required, and to identify the process by which projects are selected and prioritised. As such, we recommend that these programs are further reviewed before approval.

From our review of Allconnex Water's processes and procedure, we conclude that they represent many aspects of good industry practice. However, it is noted that the policies and procedures are currently different within each district. We note that Allconnex Water has identified that in future a coordinated approach will be taken to the planning issues. We support this statement and recommends that Allconnex Water develops a clear and consistent capital planning and prioritisation process for all districts. This should incorporate the successful elements of the policies and procedures from each district.

We note that amount spent on operating cost is higher than those of similar sized water utilities, which can be attributed to the high bulk water cost in SEQ and recycled water schemes in the area. Opportunities for gains through synergies have not been forecast until beyond FY13.

As can be expected with an organisation that have been in existence for a limited time not all policies and systems are currently in place and being implemented. We make particular reference to the variance in procedures for identifying and prioritising capital expenditure projects. Allconnex Water has identified a forward work programme that includes developing a coordinated approach for planning issues that would incorporate the most successful elements from each district.

We accept that time constraints and the collation of data from several sources have restricted the level of aggregation in this, the first submission. In future submissions it is expected that improvements to financial models and cost recording systems, and the adoption on in-house policies and procedures will allow highly aggregated information to be provided and costs assigned to all categories in the Information Requirement Template.

In our assessment Allconnex Water has identified the current limitations and there are positive indications that adequate systems and policies will be in place to allow informed pricing and reporting for future price monitoring reviews.

6. Unitywater

6.1. Introduction to Unitywater

Unitywater is a new water authority that was formed through the merging of the water and wastewater businesses of Moreton Bay and Sunshine Coast Regional Councils. It has inherited 5,100 km of water supply pipelines, 5,000 km of sewer pipes, 18 sewerage treatment plants as well as water treatment plants, water reservoirs and several pumping stations. These assets along with approximately 800 staff provide water and wastewater services to 670,000 people over 5,100 km^2.

6.1.1. Formation of Unitywater

Several significant changes have occurred within recent history, which has resulted in the current formation of Unitywater. Our assessment of the capital and operational costs is cognisant of these recent developments, and the influence of these on the availability of information and the consistency of policies and procedures within Unitywater.

6.1.2. Council amalgamations

Commencing in 2007, an extensive Local Government Reform process was undertaken. As a result of this process in 2008, several councils were amalgamated and in some cases council boundaries were redefined.

The Sunshine Coast Region was created by the amalgamation of the City of Caloundra and the Shires of Maroochy and Noosa. The Moreton Bay Region replaced three established local government areas, the City of Redcliffe and the Shires of Pine Rivers and Caboolture.

6.1.3. Water Reform

Following the Water Reform three new council-owned distribution and retail Entities commenced operation. These Entities were formed by amalgamating various council based and owned water utilities into three larger water Entities. These water Entities now own the water and wastewater distribution infrastructure and sell water and wastewater disposal services to customers in their respective areas. Unitywater is the Entity for the northern area, servicing the servicing the Sunshine Coast and Moreton Bay areas.

6.2. Report Structure

The remainder of this chapter of the report, detailing the assessment of capital and operating expenditure for Unitywater is structured as follows:

- Section 6.3 – Overview and detailed assessment of the prudency and efficiency of Unitywater's capital expenditure for FY11 to FY13
- Section 6.4 – Overview and detailed assessment of the reasonableness of Unitywater's operating expenses for FY11 to FY13

- Section 6.5 – Overall summary of findings from the assessment of capital and operating expenditure

6.3. Capital Expenditure

6.3.1. Overview of submission to Authority

Unitywater has provided information on its capital program within its submission to the Authority in response to the Information Request, including:

- A completed Information Requirement Template
- Supporting documentation, including a written submission, *Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return* (Unitywater, 2010) and other documents.

A full list of information presented to the Authority is presented in Appendix C.1.

The following sections identify the magnitude and allocations of:

- Actual capital expenditure costs from 1 July 2008 to 30 June 2010
- Forecast capital expenditure from 1 July 2010 to July 2013

6.3.1.1. Capital expenditure from 1 July 2008 to 30 June 2010

We have reviewed Unitywater's completed Information Requirement Template for Capital Expenditure from 1 July 2008 to 30 June 2010 and supporting documentation.

Historical costs have been provided from the two council areas that now comprise Unitywater. Unitywater has provided expenditure as capitalised, not as incurred, as requested by the Authority.

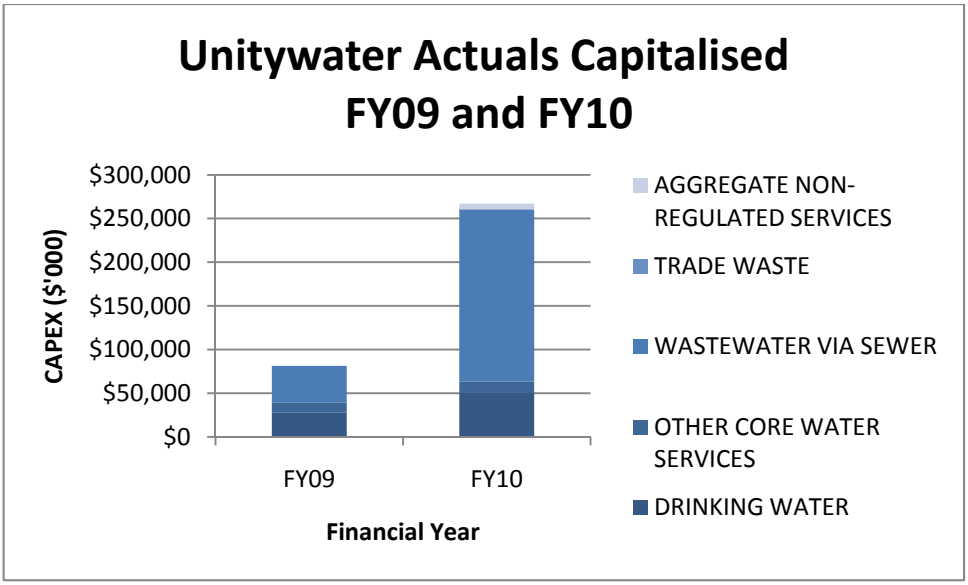
The actuals capitalised for FY2009 have been provided. The forecasts for FY2010 were provided, as the audited actual results are currently unavailable. This data was assigned to the following categories within the Information Requirement Template:

- Drinking Water
- Other core water services
- Wastewater via Sewer
- Trade waste
- Aggregate non-regulated services

It is understood that "Other Core Water Services" includes the provision of recycled water. The allocation of historical capital expenditure to the above categories is shown in Figure 5-1.

The other categories shown below have not been used. Unitywater has confirmed that it does not currently offer these services, and as such the template was correctly completed with the cells left blank.

- Aggregate non-core water services
- Other core wastewater services
- Aggregate non-core wastewater services



Source: Unitywater Information Requirements Template

- **Figure 5-1 Unitywater actual capital expenditure for FY09-FY10 by activity**

There was a significant increase in capital expenditure for wastewater from 2008/09 to 2009/10, which is generally due to a large increase in capital expenditure on wastewater within Moreton Bay (from $27.7 million in 2009 to $183.4 million in 2010).

Comparison with Council Financial Accounts

The Authority is required to accept as prudent actual capital expenditure as included in relevant council's financial accounts from 1 July 2008 to 30 June 2010.

Historical capital costs for the 2008/09 and 2009/10 financial years have been compared to the supporting documentation provided by Unitywater.

For the 2009/10 financial year, we understand that as the final financial results for the respective Councils were not available at the time of data collection, Councils' third quarter budget estimates were used.

There are minor variations in the actuals capitalised values presented in supporting documentation and in the Authority templates. These differences may be accounted for by rounding to the nearest hundred dollars.

- **Table 5-1 Unitywater – Comparison of capital expenditure costs with supporting documentation**

Geographic Area	QCA Template Actuals Capitalised Data 2008/09	Supporting Documentation Actuals Capitalised 2008/09	Documentation	Difference	Comment
Sunshine Coast	21,723,200	21,723,245	Additions 2008-09 to 2009-10 SCW.xls	-45	Rounding
Moreton Bay	59,828,200	59,828,204	MBW Acquisitions 2008-2009.xls	-4	Rounding

Geographic Area	QCA Template Actuals Capitalised Data 2009/10	Actuals Capitalised Supporting Documentation 2009/10	Documentation	Difference	Comment
Sunshine Coast	24,249,600	24,249,587	Additions 2008-09 to 2009-10 SCW.xls	13	Rounding
Moreton Bay	242,812,500	242,812,527	MBW Capital Q3 2010 returned.xls	-27	Rounding

In summary, the supporting documentation confirms the 2008/09 and 2009/10 financial year actuals capitalised provided to the Authority. It is recommended that these values are reviewed again once the audited council financial accounts are available.

Establishment costs

The Authority is required to accept as prudent all allowable establishment costs as advised by the Minister for Natural Resources, Mines and Energy and Minister for Trade.

Establishment costs are defined by the SEQ Interim Price Monitoring Guideline for Templates for 2010/11as:

> *"the costs involved in establishing the Entities. Criteria for these costs will be advised by the Queensland Water Commission".*

Unitywater has stated that they have been unable to include establishment costs for this information return as these are not yet finalised. These will be included once final information is available from Councils. It is understood that once audited reports are available from the relevant councils, the establishment costs will be integrated into the final RAB for 1 July, 2010.

The Ministerial Direction requires the Authority to accept as prudent actual capital expenditure (excluding establishment costs) as included in Council's financial accounts from 1 July 2008 to 30 June 2010; contributed,

donated and gifted assets; and allowable establishment costs as advised by the Minister for Natural Resources, Mines and Energy and Minister for Trade.

It is understood that a report is due to be produced by Ernst and Young for the Queensland Water Commission regarding allowable establishment costs. At the time of writing this report, only initial information is available regarding these costs. A letter from the Queensland Water Commission to the Authority dated 12 August 2010 states that

> *"At this time no recommendation was made to the Minister for his approval".*

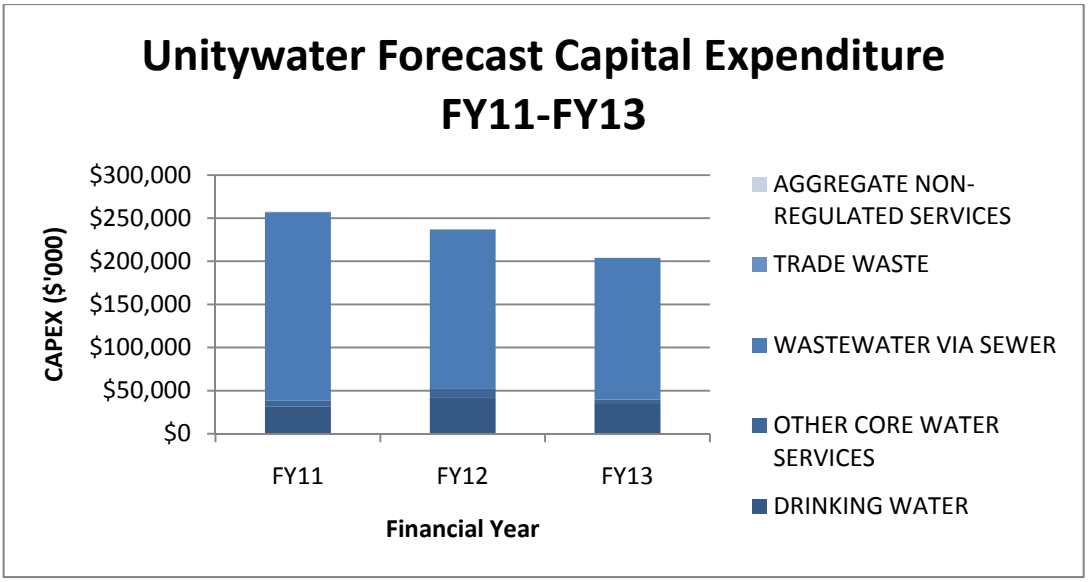
Without the advice from the Queensland Water Commission it has not been possible to identify any establishment costs that are not approved.

6.3.1.2. Capital Expenditure from 1 July 2010

The Ministerial Direction also requires the Authority to review the prudency and efficiency of capital expenditure for inclusion in the RAB from 1 July 2010.

Within its submission, Unitywater has confirmed to us that for the purposes of calculating the RAB roll-forward capital expenditure was identified on an individual asset basis and included estimated completed assets only. The following references to capital expenditure refer to capitalised assets as per the Authority's guidance.

In its submission Unitywater proposed capital works program of approximately $699.0 million for the interim price monitoring period (from 1 July 2010 to July 2013). Of this $699.0 million, water accounts for $107.5 million and wastewater accounts for $568.1 million, as shown in Figure 5-2.



Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

- **Figure 5-2 Unitywater forecast capital expenditure for FY11-FY13 by cost category**

Unitywater has populated the data templates with capitalised expenditure for the period. This assumes that 65% of planned capital expenditure will be capitalised in the year.

The figures for each financial year are presented in Table 5-2.

- **Table 5-2 Forecast capital expenditure by activity ($000s)**

Project Driver	2010/11	2011/12	2012/13	Total
Water	$31,460	$41,563	$34,492	$107,515
Other Core Water Services	$6,830	$10,453	$5,066	$22,349
Wastewater	$218,750	$184,976	$164,391	$568,117
Trade Waste	$29	$0	$0	$29
Aggregate Non-Regulated Services	$523	$233	$196	$951
Total	$257,591	$237,225	$204,144	$698,960

Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

To comply with the Authority's information template, Unitywater has assigned the capital works to the following cost drivers: growth, renewal, improvement and compliance. According to the *SEQ Interim Price Monitoring Information requirements for 2010/11* (QCA, July 2010), the cost drivers, and associated capital expenditure, are described below:

- Growth – Capital expenditure associated with increasing the capacity of assets or construction of new assets, to meet growth in demand, or to provide additional security of supply should be included in growth
- Renewal of existing infrastructure – Capital expenditure associated with replacing assets and generally maintaining service levels should be included in renewal of existing infrastructure;
- Improvements – Capital expenditure associated with improving service levels and reliability to meet customer preferences should be included in improvements;
- Compliance – Capital expenditure associated with meeting price monitoring or legislative obligations should be included in compliance.

Unitywater has indicated that in general where an existing wastewater treatment plant is augmented for any reason, resulting in capacity increases over a predetermined level, that it triggers a requirement for the entire plant, not just the expansion project, to meet modern day licence conditions. This is a unique feature to the water industry and is a significant contributor to capital expenditure in wastewater. We support the above statement; we have experienced similar requirements on recent projects.

Of the $669 million for the interim price monitoring period (from 1 July 2010 to July 2013), $473 million is for capital expenditure associated with growth, $78 million associated with renewal of existing infrastructure, $109 million with improvements and $39 million with compliance.

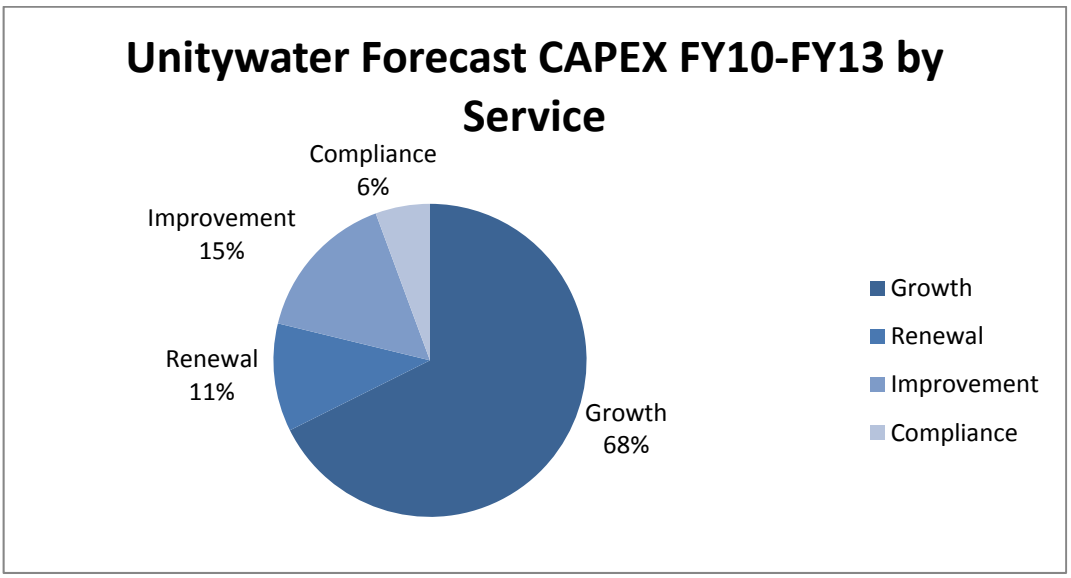
Table 5-3 Forecast capital expenditure by project driver ($000s)

Project Driver	2010/11	2011/12	2012/13	Total
Growth	148,318	164,787	159,591	472,696
Renewal	24,435	29,787	23,868	78,090
Improvement	75,005	23,899	9,939	108,843
Compliance	9,832	18,752	10,746	39,330
Total	257,591	237,225	204,144	698,960

Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

We note that Table 5-3 differs to *Table 22 Assets Capitalised by Region* from *Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return* (Unitywater, 2010). We have used data from Unitywater's Information Requirements Template, which splits costs into four cost drivers. Within *Table 22*, the improvement category was renamed infrastructure improvements and an extra category of business improvement was included. It is noted that whilst the overall totals of *Table 22* and Table 5-3 agree, there are significant differences in the allocation of costs to the required cost drivers. This should be resolved, and if necessary Unitywater's Information Requirements Template should be updated.

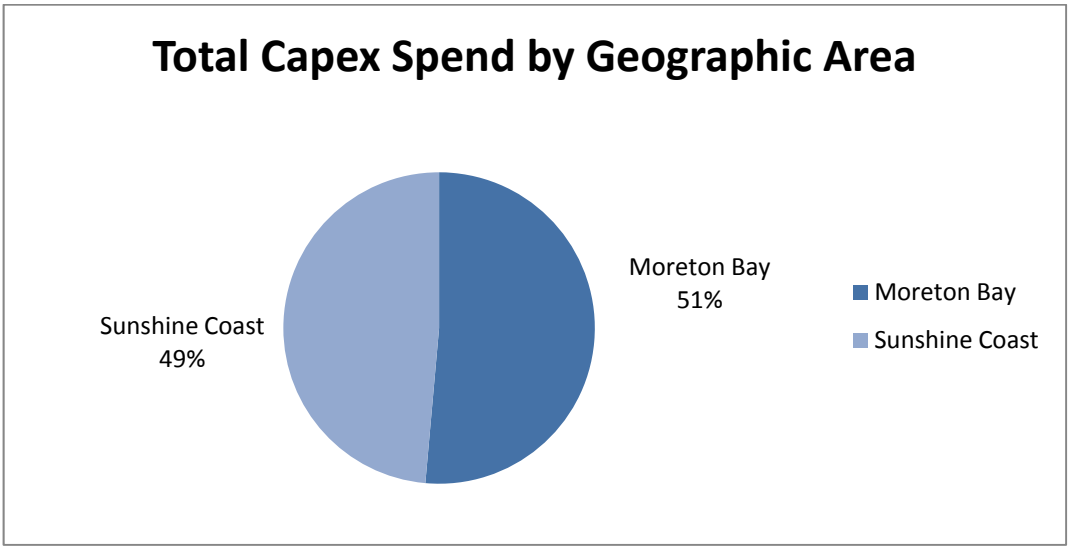
This is represented graphically in Figure 5-3. The largest cost driver is growth, followed by improvements and renewals. Compliance represents 6% of the capital expenditure for the price monitoring period.



Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

- **Figure 5-3 Unitywater budgeted capital expenditure for FY11-FY13 by service category**

The split of the capital expenditure between the five geographic areas is show in Table 5-4 below and represented graphically in Figure 5-4. The majority of the capital expenditure is within the Sunshine Coast area, however, within 2010/11 the majority of the expenditure is within the Moreton Bay area.



Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

- **Figure 5-4 Unitywater budgeted capital expenditure for FY11-FY13 by geographic area**

The split of these capital costs between the geographic areas is show in Table 5-4 below.

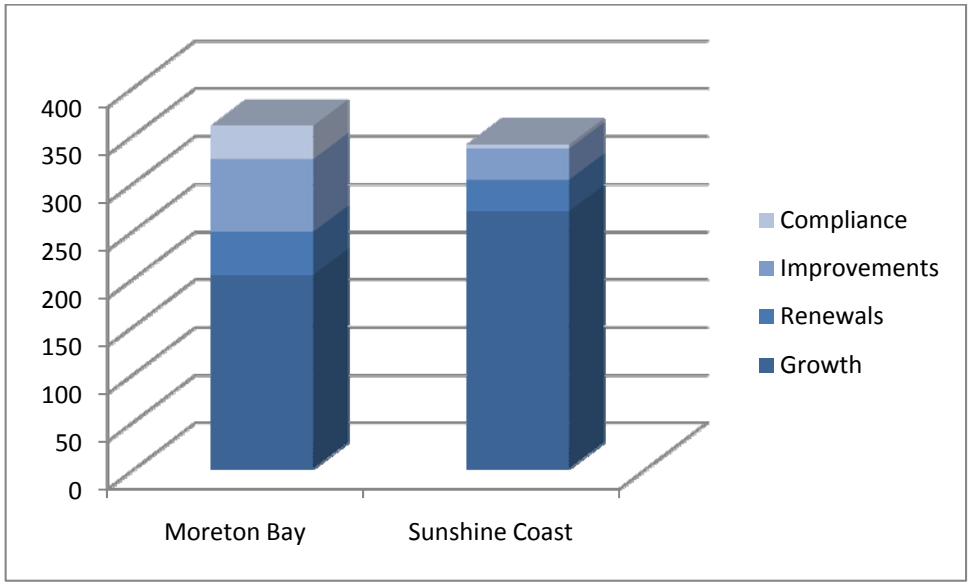
- **Table 5-4 Forecast capital expenditure by geographic area ($000s)**

Project Driver	2010/11	2011/12	2012/13	Total
Moreton Bay	$199,115	$109,514	$50,658	$359,286
Sunshine Coast	$58,477	$127,711	$153,486	$339,674
Total	$257,591	$237,225	$204,144	$698,960

Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

The above information is summarised in Figure 5-5, showing the split of these capital costs between the two geographic areas for each of the cost drivers.

- **Figure 5-5 Combined capital expenditure value (FY11, FY12 and FY13) – Spend by geographic area**



Source: Unitywater Information Requirements Template. Note: capital expenditure refers to capitalised assets.

In its submission Unitywater noted that the majority of the works across the region will be in wastewater transport and treatment assets across the region. Table 5-5 lists some of these major capital expenditure projects.

- **Table 5-5 Major capital expenditure projects per each geographic area ($000s)**

Project	Project Cost 2010/11	Total Project Cost
Nambour STP	$0.00	$52.71
Noosa STP	$13.71	$37.10
600mm watermain - P001	$0.16	$7.64
Water Meter Replacement- 20mm Meters	$1.60	$5.08
Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML)	$0.51	$4.96
Water Supply Facilities - Switchboard Replacement Program	$0.74	$4.67
South Caboolture WWTP Upgrade and Augmentation (Stage 2)	$38.12	$42.50
Burpengary Wastewater Treatment Plant Stage 2 Augmentation	$22.41	$22.41

Source: Unitywater Additions post 1 July 10.xls.

6.3.2. Unitywater detailed capital expenditure review

The following section discusses the assessment of the proposed capital expenditure for Unitywater over the price monitoring period of 2010/11 to 2012/13. This section includes:

- An assessment of the adequacy of capital expenditure information provision, including:
  - The inclusion of expenditure on non commissioned assets
  - Processes for cost disaggregation
  - Indexation
- A description of the representative sample selection for capital expenditure projects
- A description of the method used to assess capital expenditure projects
- Commentary on business processes for Capital project option study, including:
  - Service standards
  - Capital expenditure planning and prioritisation
  - Comparison with good industry practice
  - Use of policies and procedures within representative sample selection
  - Recommendations for future policies and procedures
  - The outcomes of the capital expenditure projects assessments

6.3.3. Adequacy of capital expenditure information provision

We have undertaken a review of Unitywater' submission. The key points to note are as follows.

Supporting documentation

Unitywater provided a full costed project list, which provides information on a project by project basis, eg scope, timing of expenditure (monthly), project drivers and links to supporting documentation.

Within its Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return (Unitywater, 2010) Unitywater states that:

> *"For FY2010 Councils' third quarter budget estimates have been used. This information was provided by project, however there are data issues relating to the correct classification of assets and cost drivers. Linking of work in progress balances to correct classification and obtaining reliable completion status for yearend has also presented constraints in meeting the precise information requirements."*

The document mentions that these issues will be rectified when the actual audited results are received. We recommend that the historical costs are reviewed, and if required, updated following the release of the audited results.

Unitywater is currently establishing further governance structures to underpin the process of approving capital expenditure. Unitywater states:

> *"These processes will be refined during the coming financial year as structural changes are implemented. Consequently the Authority should consider current practices in light of Unitywater's emerging capabilities. Other information required by the Authority in relation to approval processes, linkages to strategic asset management plans, option analysis and procurement processes will be matters addressed by Unitywater during the Authority's detailed review of capital expenditure."*

Required information template

Within Unitywater's completed Information Requirement Template, capital expenditure is allocated to the following categories:

- Drinking Water
- Other core water services
- Wastewater via Sewer
- Trade waste
- Aggregate non-regulated services

The following tables summarise the analysis of the completeness of these categories within the completed Information Requirement Template. The top row shows the main categories and the left hand column shows the sub categories used within these categories. Coloured cells highlight areas where no data is provided. The colour coding of these cells is explained below.

Table 5-6 Completion of data templates

	Costs For 2010/11 to 2012/13 ($000s)				
	Drinking Water	Other Core Water Services	Wastewater Via Sewer	Trade Waste	Non-Regulated Services
Reservoirs	21,339	-	-	-	-
Pump stations	5,906	-	94,291	-	-
Treatment	-	1,665	342,477	29	523
Associated telemetry and control systems	978	-	6,882	-	-
Meters	6,657	335	86	-	105
Billing systems	179	-	-	-	-
Corporate systems	-	-	-	-	3
Sundry Property, Plant and Equipments	961	-	-	-	231

	Costs For 2010/11 to 2012/13 ($000s)				
	Drinking Water	Other Core Water Services	Wastewater Via Sewer	Trade Waste	Non-Regulated Services
Land	-	-	-	-	-
Buildings other than infrastructure housing	262	32	10,238	-	42
Distribution infrastructure not listed above	58,336	19,984	98,973	-	-
Support services	12,898	334	15,170	-	48
Establishment Costs	-	-	-	-	-
Other 2 [please specify]	-	-	-	-	-
Unallocated cash contribution	-	-	-	-	-

The cells that are colour coded green in Table 5-6 are expected not to be populated. For example there are expected to be no reservoir costs are associated with wastewater, no treatment costs associated with water (as Unitywater is not responsible for water treatment) and no establishment costs in 2010/11 onwards. In addition, the SEQ Interim Price Monitoring, Guideline for Templates for 2010/11 (Version 1.0, May 2010) states that

> *"there should be no direct capital expenditure assigned to the "Unallocated cash contributions" asset class".*

The cells that are colour coded yellow in Table 5-6 indicate that data has not been disaggregated or that no projects are associated with this sub category. There appears to be a good spread of costs between all of the sub categories.

We provide further details on the information provided by Unitywater in the information return in Appendix C.1.

Expenditure vs. Commissioning

The SEQ Interim Price Monitoring Framework Final Report states that:

> *"work in progress should be capitalised at the rate of return and included as capital expenditure once it is fully completed and able to contribute productive capacity to the system".*

Within its submission, Unitywater has confirmed to us that for the purposes of calculating the RAB roll-forward capital expenditure was identified on an individual asset basis and included estimated completed assets only.

Unitywater has assumed (based on historic capitalisation) that 65% of the projected capital expenditure will be capitalised at year end for the forecasted period FY2011 to FY2013. No supporting evidence was provided to determine how this 65% value was calculated.

- **Table 5-7 Unitywater's capitalisation process**

Region	Reconciliation	FY2011	FY2012	FY2013
Moreton Bay	WIP from prior year capitalised	87.3	60.2	26.5
	Add current year expenditure	172.1	75.8	37.1
	Less 35% assumed incomplete	(60.2)	(26.5)	(13.0)
	Capitalised	**199.1**	**109.5**	**50.7**
Sunshine Coast	WIP from prior year capitalised		31.5	51.8
	Add current year expenditure	90.0	148.0	156.4
	Less 35% assumed incomplete	(31.5)	(51.8)	(54.7)
	Capitalised	**58.5**	**127.7**	**153.5**
Unitywater Total	WIP from prior year capitalised	87.3	91.7	78.3
	Add current year expenditure	262.1	223.9	193.5
	Less 35% assumed incomplete	(91.7)	(78.3)	(67.7)
	Capitalised	**257.6**	**237.2**	**204.1**

Source: Table 21, Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return (Unitywater, 2010))

Our view is that in good industry practice capital expenditure should be capitalised (and hence included in the RAB) when the asset for which the capital expenditure occurred can reasonably be expected to start making a contribution to a regulated service delivery. As such the project should be commissioned (or at least that part of the project for which in increase in RAB is claimed should be commissioned and contributing to service delivery) before the expenditure is capitalised and claimed as part of the RAB.

For all of Unitywater's large capital projects, we expect that the anticipated project completion, or commissioning date, should be documented. This date, combined with a proposed completion dates for any interim stages, should be used to determine when the project should be capitalised.

Indexation

An indexation rate of 2.48% was used by Unitywater for FY2011 onwards. This was calculated as follows

"The escalation applied for future years was calculated using the difference between the RBA return on the market rate for five year bonds and five year capital indexed bonds, in accordance with the Authority's information requirement. The average of the monthly differences over the six months from November 2009 to April 2010 was used and the resultant escalation rate is 2.48%."

We agree that Unitywater has used the recommended process for calculating indexation as outlined in Section 5.9 of the *SEQ Interim Price Monitoring Information Requirements for 2010/11* (QCA, July 2010).

To maintain consistency for each of the Entities, we recommend that a consistent indexation rate is used. A discussion of the use of CPI as an appropriate cost escalator for capital costs and the use of other relevant indices is included in Section Error! Reference source not found..

6.3.4. Summary of Data Adequacy

In conclusion, Unitywater has provided a submission which substantially complies with the Authority's guidelines. The Information Required Template was completed for the key categories.

Unitywater has identified that there have been problems with the data regarding the assigning of the correct classification of assets and cost drivers within the historical capital expenditure. The document mentions that these issues will be rectified when the actual audited results are received. We recommended that the capital expenditure allocated to sub categories within the Information Required Template is reviewed, and if required, updated.

In addition, no establishment costs are included in the historical capital expenditure. We recommend that the templates are updated once information is available on the council's audited accounts and establishment costs.

A project list was provided for future capital projects. This is a highly useful and comprehensive tool which links each project to the activity (water, wastewater,) geographical area, project drivers, asset class and timing of expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories. The use of Unitywater's spreadsheets allows for a highly disaggregated system of cost recording and continued use of this model (or similar versions of this model) is recommended.

6.3.5. Capital project sample selection

We were requested by the Authority to review the prudency and efficiency of a representative sample of Unitywater's capital expenditure projects.

A sample of 13 projects was selected for the detailed review of prudency and efficiency. Ten of these projects were selected based on the highest cost water and wastewater projects for each geographic area. In addition a median value project was selected for each geographic area to allow greater representation of the lower value projects, which are less likely to have been reviewed in detail in the past. This project was selected by taking a project with a value close to the median value for each geographic area with capital expenditure within the 2010/11 financial year. An additional project, Heavy Vehicle Fleet Replacement, was selected due to the magnitude of this cost n comparison with water and wastewater activities.

We present a list of capital expenditure programs reviewed in detail for 2010/11 in Table 5-8.

- **Table 5-8 Capital expenditure project/programs reviewed by SKM**

Asset Description	Asset Product (Water/Wastewater)	Local Government District	Total capital expenditure (2010/11 - 2012/13) ($000s)
Nambour STP	Wastewater	Sunshine Coast	$52,711
South Caboolture WWTP Upgrade and Augmentation (Stage 2)	Wastewater	Moreton Bay	$42,505
Noosa STP	Wastewater	Sunshine Coast	$37,099
Kawana STP	Wastewater	Sunshine Coast	$31,522
Burpengary Wastewater Treatment Plant Stage 2 Augmentation	Wastewater	Moreton Bay	$22,413
Moreton Bay Water/Sunshine Coast Water - Heavy Vehicle Fleet Replacement	Other	Regional	$9,541
600mm water main - P001	Water	Sunshine Coast	$7,644
Water Meter Replacement- 20mm Meters	Water	Sunshine Coast	$5,080
Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML)	Water	Moreton Bay	$4,961
Water Supply Facilities - Switchboard Replacement Program	Water	Moreton Bay	$4,667
Water Main WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline.	Water	Moreton Bay	$4,252
WPS Pump Replacement	Water	Sunshine Coast	$212
Water Main Hakae Ct / Areca Ct, Narangba (150mm x 114m)	Water	Moreton Bay	$76

Together, these projects account for 33% of the capital expenditure Costs for FY11 to FY13. Table 5-9 details the percentage of Capital Costs represented by the sample for each geographic area and activity.

- **Table 5-9 Unitywater water sample as a percentage of total capital costs**

Geographic Area	Water activity	Wastewater activity	Other	Total
Moreton Bay	30%	39%	31%	31%
Sunshine Coast	38%	19%	0%	34%
Totals	35%	26%	23%	33%

- **Table 5-10 Unitywater's sample as several projects by geographic area and activity**

Geographic Area	Water activity	Wastewater activity	Other	Total
Moreton Bay	4	2	1	7
Sunshine Coast	3	3	0	6
Totals	7	5	1	13

The above sample captures in excess of 10% of capital expenditure by value in each activity and geographic area over the forecast period and includes two lower value projects. The sample also captures 33% of all capital expenditure in the forecast period, however only 11% of all capital expenditure in 2010/11. SKM and the Authority consider that the sample size chosen is reasonably representative of the capital works program of Unitywater.

Our assessment methodology is discussed in the following section.

6.3.6. Capital project assessment method

The capital expenditure project assessment was carried out in three stages:

- Stage 1 – Identification and Collation of Information
- Stage 2 – Adequacy of Information
- Stage 3 - Assessment of Prudency and Efficiency

These stages are describes as below.

Stage 1 – Identification and collation of information

Following the selection of a representative sample of projects, Stage 1 involved the identification of information required for the review. A Request for Information (RFI) was issued for each project indicating the type of information required. An example of an RFI is shown below.

- **Table 5-11 Example of RFIs for Unitywater projects**

Project Name	Project ID	RFI No.	Overall Cost 2010-13 ($000s)	Information Request
South Caboolture WWTP Upgrade and Augmentation (Stage 2)	C-SCWWTP-01	RFI 33	42,505	▪ Previous reports and studies, eg Latest and most relevant Caboolture WWTP Planning report, details of growth projections for South Caboolture and any associated phasing/staging of the WWTP ▪ Background reports on existing infrastructure and associated networks including current and future design life and expectancy. ▪ Detailed cost breakdown and details of any independent

Project Name	Project ID	RFI No.	Overall Cost 2010-13 ($000s)	Information Request
				cost reviews ■ Proposed capacity and sizing of all main process units. ■ Upgrade and Augmentation scope of works detailing all civil, mechanical, electrical and process works proposed. Including detailed design and construction methods and associated timeframes. ■ Description of any contingencies used and whether current costs include detailed design, construction and commissioning or any particulars such as site specific issues such as flood design, stormwater treatment, decommissioned elements and handover agreements.
Water Supply Facilities - Switchboard Replacement Program	WATSB RENEW -01	RFI 36	4,667	■ Feasibility and background reports on associated works ■ Conditions assessment and risk analysis ■ Documents detailing current programs in place ie project drivers, project selection/prioritisation, current mitigation measures and management controls. ■ Details of any units rates used for costings. ■ Description of proposed works including locations, required number of switchboards, approximate size and associated infrastructure ■ Detail timeframes for proposed works.

Stage 2 – Adequacy of information

For each project the adequacy of information was assessed against the Authority's requirements. In line with the Authority's *Final Report on SEQ Interim Price Monitoring Framework*, we have considered the adequacy of information provided on the following items for assessing the prudency and efficiency of the proposed capital expenditure.

- Scope and Costs
- Appropriate Category Applied (growth, renewal, improvements, compliance)
- Standards of Service

To facilitate a common approach to analysis of capital works projects we developed a template to record the project information received and to assess the information for adequacy using the above categories.

Where the information received did not meet the requirement for assessment, further RFIs were issued to gain this information.

During this process, we engaged with Unitywater to discuss the list of project under review and to review Unitywater's general policies and procedures for identifying and prioritising capital expenditure projects.

We feel it is important that the collection of data for returns to the Authority by Unitywater be considered within the overall context of the Water Reform process. At the start of this activity, Unitywater has only been established for two months and many staff members are still in the process of adjusting to new roles, policies and procedures. In addition to the above factors, it is also recognised that due to the tight timeframes of the project, Unitywater was provided with limited timeframes to provide information.

Stage 3 - Assessment of prudency and efficiency

For each project, an assessment of the prudency and efficiency of the project was assessed against the Authority's requirements. Based on the *Queensland Competition Authority Information requirements for 2010/11*, expenditure is prudent if:

- It is required as a result of a legal obligation
- It is required as a result of new growth (as approved by the Authority)
- It is a renewal of existing infrastructure
- It achieves an increase in the reliability or the quality of supply that is explicitly endorsed or desired by customers, external agencies or participating councils.

Expenditure is efficient (cost-effective), if:

- The scope of the works (which reflects the general characteristics of the capital item) is the best means of achieving the desired outcomes after having regard to the options available, including the substitution possibilities between capital expenditure and operational expenditure and non-network alternatives such as demand management.
- The standard of the works conforms to technical, design and construction requirements in legislation, industry and other standards, codes and manuals. Compatibility with existing and adjacent infrastructure is relevant as is consideration of modern engineering equivalents and technologies.
- The cost of the defined scope and standard of works is consistent with conditions prevailing in the markets for engineering, equipment supply and construction.

In addition to the above criteria, the Authority requested us to assess the deliverability and timing of the capital expenditure program, having regard to the capital expenditure historically delivered by participating councils and the policies and procedures for capital expenditure going forward.

The cost efficiency of the projects was measure through comparison against published unit rates from Rawlinsons, available unit rates from SEQ water Entities and also other water utilities from other regions and previous project experience on similar projects.

For example, the cost efficiency of the "Water Main Hakae Ct-Areca Ct, Narangba" project was assessed through benchmarking the scope of works identified with a range of anticipated rates. The 2011/12 year yielded a projected total cost of $76,000 for the construction of approximately 114m of DN150 pipe, a rate of just over $660/m. This rate was compared to a range of rates from past project experience, Rawlinsons and estimating tools. If the rate

was within (±30%) the range identified it was considered to be cost efficient. Based on this method for assessment it was this project was found to be within 20% of the highest rate identified. The high value of this cost could be attributed to the disproportionately high set up costs for this short length of main.

To facilitate the review process and ensure consistency of review against different projects and across the different Entities, we developed a template against which to assess the project for prudency and efficiency using the above definitions. We have provided completed templates for all projects within Appendix C.2.

The following section discusses our review of Unitywater's policies and procedures for developing its capital budget.

6.3.7. Commentary on business processes for capital project option study

Within its submission, Unitywater has provided information on its service standards, capital planning and capital prioritisation. We discuss these processes below.

Service standards

Unitywater has provided details of its service standards in Section 6 of its return.

To meet the requirements of the *Water Supply (Safety and Reliability) Act 2008*, a strategic asset management plan (SAMP) was developed and approved by Unitywater for each of the districts. The legislation for the water reform will transition the SAMPs and related service standards from both Councils to Unitywater. Accordingly, these service standards apply from 1 July, 2010 until changed.

Unitywater has commenced the development of a common service standard across its service area, and expects these will commence from 1 July, 2011. In development these new standards, Unitywater has considered a range of matters including:

- DERM's "Guidelines for Preparing Customer Service Standards"
- Historic and projected performance against current standards
- Benchmarking of performance against the Queensland Water Directorate State-wide Water
- Information Project (SWIM) 2008/2009 comparative data report
- Benchmarking of performance against the WSAA National Performance Report (NPR) for 2007/2008
- Review of GHD Water Reform Program Final Report Due Diligence - Technical Module (Key Activities 1.4.11 Levels of Service and 1.4.13 Technical Performance Indicators)
- Review of other SEQ water service provider's service standards
- Determining specific measures in terms of accuracy, realistic application and achievability, cost and timeliness in terms of what would be reasonably acceptable to the customer.
- We understand that until this review is complete and the new service standards approved by DERM, the standards set out above will continue.

This unified service standard will be included within Unitywater's Netserv plan, which will replace the SAMP and other plans.

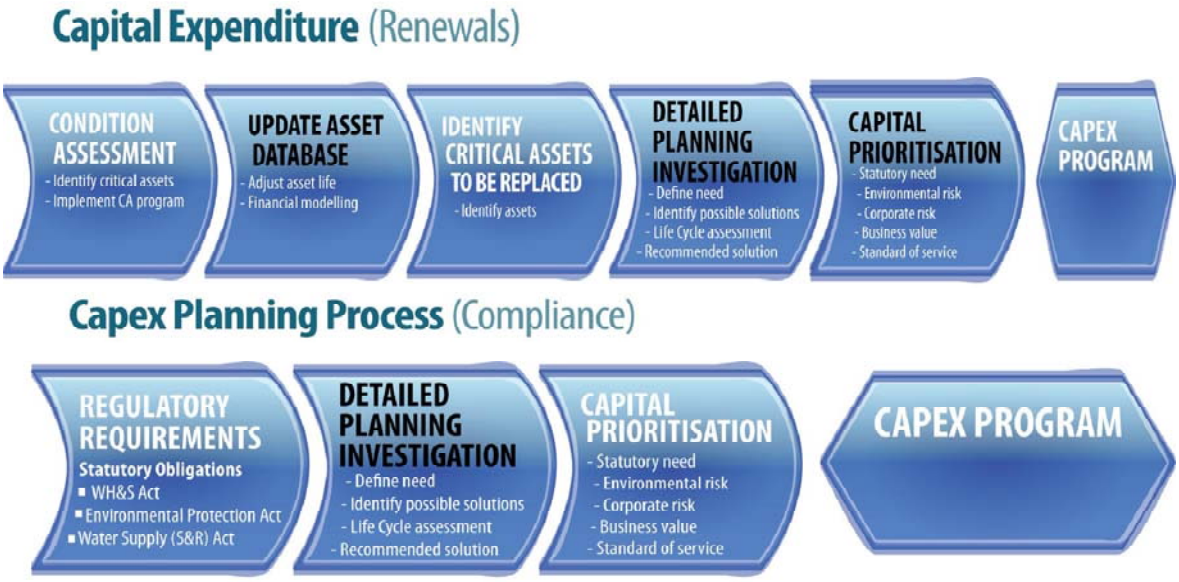
We believe that the development of a *NetServ Plan* provides a good opportunity for Unitywater to develop a consistent and structured approach to planning for both districts, and the completion of this plan is recommended.

Under the S*outh East Queensland Water (Distribution and Retail Restructuring) Act 2009,* the Minister is expected to develop a water and wastewater customer code to provide for minimum and guaranteed service standards for the customers of the three distributor-retailers. This is expected to occur by 30 June 2011.

Capital planning and prioritisation

Within Section 9 of Unitywater's *Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return* (Unitywater, 2010) Unitywater defines its method of determining capital programs. The method for deriving each capital expenditure item within a program varies depending on the cost driver.

In the following figures we show Unitywater's processes for developing its capital programs according to the three main cost drivers. A specific process is not shown for projects with a cost driver of "Improvements". There are only a few capital projects associated with this cost driver category, as Unitywater is currently managing to existing service levels. It is recommended that if Unitywater's standards of service are updated, these improvement projects are re-reviewed to confirm that they still remain prudent.



Source: Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return (Unitywater, 2010)

- **Figure 5-6 Unitywater's processes for developing the CAPITAL EXPENDITURE Program**

Unitywater has advised us that a prioritisation model was specifically developed to assess projects across the region. This model allows each project to be assessed, scored and ranked.

Within its Response to Interim Price Monitoring Information Requirement Price Monitoring Information Return (Unitywater, 2010) Unitywater states:

> *"Capital expenditure for FY2011 was approved by the Board of Unitywater as part of its overall budget approval process. Unitywater has established a sub-committee of the Board to monitor and review the capital expenditure program and its delivery. This committee meets monthly to consider progress against timelines and budget, and make decisions as required on variations or budget changes.*
>
> *Unitywater is currently establishing further governance structures to underpin the process of approving capital expenditure."*

Unitywater is currently establishing further governance structures to underpin the process of approving capital expenditure. Unitywater states:

> *"These processes will be refined during the coming financial year as structural changes are implemented. Consequently the Authority should consider current practices in light of Unitywater's emerging capabilities"*

We believe that the establishment of a board sub-committee is a good first step to developing a robust and consistent capital works program, where all projects are reviewed and approved prior to implementation. We recommend that the process for reviewing and approving capital projects is finalised and documented prior to the next review period.

Comparison with good industry practice

Following a high level review of Unitywater's general policies and procedures, we have assessed whether these policies and procedures represent good industry practice.

We believe that good industry practice for water utilities includes:

- The use of defined project stages which are common to all projects
- The production of adequate processes and documentation for each project stage, including documented requirements, reporting, documents and approvals within a project management and delivery framework
- The consideration of cost drivers to determine whether a project is adequately justified and therefore prudent
- The consideration of viable alternative options. Use of options assessments should consider the 'do nothing' base case. Within the context of a water utility, the 'do nothing' should be used as the base case to describe the impact and consequences of no action. The options described in the feasibility study should therefore focus on the likely engineering alternatives, to provide initial guidance on the likely solution for the further investigations
- The use of a multiple criteria assessment to ensure a triple bottom line approach for determining the recommended solutions. The use of a standardised process for conducting this assessment will facilitate justification and prioritisation of a specific project over another
- The documentation of the project/program selection and prioritisation, through close-out reports and approvals gateways at each project stage
- The use of master planning of its water and wastewater system, including trunk infrastructure planning, preliminary infrastructure sizing, modelling and forward costing
- The establishment of long term, coordinated, and structured development sequencing to meet the requirements for population growth planning which considers the efficient delivery of all infrastructure to service population growth
- The use of a defined asset management system based on condition assessments and/ or risk profiles to identify renewals projects
- The consideration of relevant legislation and state wide planning directions
- The use of unit costs developed from actual project data or from comparative data
- The standardisation of cost estimation procedures, including either standardised percentages for contingencies or a risk-based cost estimation system.

We consider a good governance process should address and document at least the following issues:

- What are the drivers that triggered the project?

- What are the options which are likely to address the drivers?
- How was the recommended option selected?
- What is the approved project cost and on what basis?
- Does the solution pass the internal (eg economic, technical, environmental) and external (eg Regulatory) tests?
- What are the risks and how are they to be managed?
- What are the critical success factors for the project?
- What was approved and how was it approved?
- How was the project implemented?
- How did the project perform – what went well and what can be learned from the performance?
- Did the project address the critical success factors?
- How did the as-built cost compare with the original estimate upon which approval was sought?
- Would the as-built cost of the project, have changed the order of merit of the options considered at the options analysis stage?

Also essential to good industry practice is the establishment of robust water demand forecasts. These total water demand forecasts are based on the following key inputs:

- Population data, which is typically based on Census data, State Government and Local Government employment and growth projections.
- Per Capita water demands, which is typically based on historical water consumption, and predicted future per capita demands accounting for some water conservation.

These projections are the cornerstone of all long term infrastructure planning. The long term demands are then translated into the annual, monthly and average daily water demands and wastewater loadings for the community, and the storage and distribution system capacity to meet the community's water demands. Demand forecasting is currently being addresses by a separate consultant, Frontier Economics, who will produce a separate report on this issue.

Based on our review of Unitywater's processes and procedures, we conclude that the processes and procedures adopted by Unitywater are in accordance with good industry practice. Unitywater has identified a vigorous planning methodology, including options assessment, risk assessments and lifecycle assessment, which are signs of a good governance procedure.

As stated above, we recommend that Unitywater continues to develop further governance structures to underpin the process of approving capital expenditure.

6.3.7.1. Use of policy and procedures within case studies

We have sought evidence of the process documents, approvals and reports for the projects selected within the representative sample.

We note that documentation is substantially complete for most projects. We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

Within the limited review timeframe, the shortcomings we have identified are not in compliance with the process, but rather in the level of information and documentation prepared, and the ability for parties independent of the planning process (such as the Authority) to adequately assess a project based on the documentation provided.

An example of this is the Water Main Hakae Ct-Areca Ct, Narangba Project. No project scoping document apart from the proposed plans was received. There is therefore a need to develop a template for small project scopes, if not already in existence.

6.3.7.2. Polices and processes summary

Currently Unitywater is reviewing the varying standards of service for customers and asset design as is expected of a newly formed Entity. Work is underway to create a consolidated version of these standards.

From our analysis of the information provided, we conclude that Unitywater has established well defined policies and procedures which are in agreement with good industry practice. Unitywater is currently establishing further governance structures to underpin the process of approving capital expenditure.

We note that documentation is substantially complete for most projects. We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

6.3.7.3. Recommendations for future processes

We provide recommendations for improving the Unitywater's capital program as follows:

- We believe that the establishment of a board sub-committee is a good first step to developing a robust and consistent capital works program, where all projects are reviewed and approved prior to implementation. We recommend that the process for reviewing and approving capital projects is finalised and documented prior to the next review period.
- We believe that the development of a *NetServ Plan* provides a good opportunity for Unitywater to develop a consistent and structured approach to planning for both districts, and the completion of this plan is recommended. In addition, we recommend that any future updates to Unitywater's standards of service are cognisant of Ministerial advice.
- We recommend that a standardised approach to cost estimating should be developed, including a standardised approach to estimates for items such as contingency, preliminary and general items, design fees

and contractor margins, so that there is uniformity of cost estimating across all proposed major projects. Implementation of a probabilistic or risk based cost estimating approach should be considered.

- We recommend that an implementation strategy should be developed for each major project, and that this includes recommendations on:
  - Delivery methodology (detailed design followed by separate construction, D&C, ECI etc)
  - Program
  - Further investigations including the scope and timing of these
  - Implementation of a risk review process
- We recommend that a standardised approach to multiple criteria assessment should be developed for use in options assessment. This should consider triple bottom line outcomes.
- We recommend that a 'toll gate' or 'gateway' review process is implemented so that appropriate peer reviews are undertaken at milestone stages for selected projects.
- We consider that there is merit in Unitywater developing a single page project summary for each project/program in addition to the project list that provides more detail on the project drivers, standards of service met (eg for growth projects, the magnitude and source of the population growth, forecast demand, and links to the current DSS or relative planning reports), provides project history (eg the previous reports completed), provides the proposed future stages, proposed delivery method and program for the project. We recommend that this summary sheet be updated at the completion of each project phase and prior to the inclusion of the project within the budget. It is expected that a similar process may be already underway as part of the board review process.
- As part of the board review process, we recommend that synergies between the two districts are considered, and where possible these synergies are developed. For example, combined programs of work or optimised infrastructure. We recommend that, where relevant, master planning studies, feasibilities studies and network models take into consideration opportunities and risks in neighbouring areas, to allow the development of an integrated and optimised network.

6.3.8. Capital project assessments

A summary of the projects reviewed by us is provided in Table 5-12 . Full project reviews are contained within Appendix C.3.

We have assigned the projects into one of four categories:

- Information provided demonstrated project to be prudent and efficient
- Information provided demonstrated project to be not prudent and/or efficient
- Insufficient information provided to demonstrate project is prudent and efficient
- Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development.

These categories are used within Table 5-12.

We recommend that projects where insufficient information is provided to demonstrate prudency and efficiency, but that the level of information is consistent with the stage of development, that the project should remain within the forecast capital expenditure but be reviewed during future evaluations. If removed from the budget, this is likely to cause disruption to the provision of service delivery in the future. The inclusion of these costs provides the Entities with the opportunity to undertake the appropriate preliminary works and produce sufficient supporting documentation. Where projects are either demonstrated by the information provided to be not prudent and/or efficient, or where no information was provided to support the project, these costs should be removed from capital expenditure forecasts.

All projects and programs should be considered in the overall context of the Water Reform. The majority of these projects will have been initiated within previous council organisations, using the policies and procedures and standard of service developed under these councils.

Following the review of the documentation provided by Unitywater, we found that most, but not all, of the forecast programs were prudent and efficient. Our conclusions with respect to the prudency and efficiency of the proposed capital expenditure programs are detailed below.

For several projects, no data was received to assess the prudency or accuracy of the project. This is discussed further in Section –.

- **Table 5-12 Summary of assessment of Unitywater capital expenditure spend**

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
South Caboolture WWTP Upgrade and Augmentation Stage 2	Information provided demonstrated project to be prudent and efficient		Yes	Yes, with some considerations	$38,155,000	$42,505,000	$38,155,000 (no change)	$42,505,000 (no change)
Burpengary Wastewater Treatment Plant Stage 2 Augmentation	Information provided demonstrated project to be prudent and efficient	N/A	Yes, with some considerations	Yes, with some considerations	$22,413,000	$22,413,000	$22,413,000 (no change)	$22,413,000 (no change)
Water Supply Facilities – Switchboard Replacement Program	Insufficient information provided to demonstrate project is prudent and efficient		No Information	No information	$738,400	$4,666,500	Insufficient information to review – remove from budget	Insufficient information to review – remove from budget
Water Main Hakae Ct-Areca Ct, Narangba Project	Information provided demonstrated project to be prudent and efficient		Yes	Yes	$0	$76,000	$0	$76,000 (no change)

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Kawana STP	N/A	Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development	No	No	$0	$31,522,000	-	Further Review Required
Nambour STP	N/A	Information provided demonstrated project to be prudent and efficient	Yes, with some considerations	Yes	$0	$52,712,000	$0 (no change)	$52,712,000 (no change)
Noosa STP	Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development		Yes, with some considerations	No – more information required	$13,706,000	$37,099,000	Further Review Required	Further Review Required
600mm water main – P001	Information provided demonstrated project to be prudent and efficient		Yes	Yes	$158,000	$7,644,000	$158,000 (no change)	$7,644,000 (no change)

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Water Meter Replacement – 20mm Meters	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development	Yes	Yes	$1,602,000	$5,080,000	$1,602,000 (no change)	Further Review Required
WPS Pump Replacement	Information provided demonstrated project to be prudent and efficient	Insufficient information provided to demonstrate prudent and efficient, but level of information provided is consistent with the stage of development	Yes	Yes, with some considerations	$79,000	$212,000	$79,000 (no change)	Further Review Required
Heavy Vehicle Fleet Replacement	Yes		No Information	No information	$6,200,100	$9.540,500	Insufficient information to review	Insufficient information to review

Project / Asset Description	Adequacy of Information		Prudent	Efficient	Budget Cost ($000s)		Recommended Revised Budget Cost ($000s)	
	2010/11	2011/12 & 2012/13			2010/11	SUM 2010/11 - 2012/13	2010/11	SUM 2010/11 - 2012/13
Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML)	Information provided demonstrated project not to be prudent and efficient		No	No	$514,815	$4,960,895	Remove from Budget	Remove from Budget
Water Main WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline.	Insufficient information provided to demonstrate project is prudent and efficient		No Information	No information	$2,034,270	$4,252,009	Insufficient information to review	Insufficient information to review

6.3.8.1. Capital projects considered efficient and prudent

The following projects are considered to be prudent and efficient for all financial years:

- South Caboolture WWTP Upgrade and Augmentation Stage 2
- Burpengary Wastewater Treatment Plant Stage 2 Augmentation
- Water Main Hakae Ct – Areca Ct, Narangba Project
- Nambour STP
- Water main – P001

The following projects are considered to be prudent and efficient for the 2010/11 financial year. Currently insufficient information is available to assess the prudency and efficiency of future years, but the level of information is consistent with the project/program stage:

- Water Meter Replacement – 20mm Meters
- WPS Pump Replacement
- Kawana STP
- Noosa STP

Each of these projects are summarised below. The full review is contained within Appendix C.3.

South Caboolture WWTP Upgrade and Augmentation Stage 2

- The capital expenditure is proposed to be $43 million over the 2010/11-2012/13 financial years.
- South Caboolture WWTP Upgrade and Augmentation Stage 2 involves the upgrade and augmentation for South Caboolture Sewage Treatment Plant (SCSTP) is required to meet projected population growth and expected loads up to the year 2021. This will require the existing plant to be upgrade from its current nominal design capacity of 9.6 ML/d average dry weather flow (~ 40,000 EP) to a capacity of 18 ML/d (~ 80,000 EP). The augmented plant is a SBR type plant with the new stages being continuous process, and upgrades tertiary filtration, chlorination and sludge dewatering.
- Based on the information provided, the project is deemed to be prudent and efficient. To further confirm the efficiency of this project, it is recommended that Unitywater provides the business case for assessment.

Burpengary Wastewater Treatment Plant Stage 2 Augmentation

- The capital expenditure is proposed to be $22 million in the 2010/11 financial year.
- This project consists of upgrading the existing Burpengary East STP to 49,900 EP.
- The plant upgrading is to include provision for a future 10 ML effluent storage reservoir to permit storage and reticulation of recycled effluent. The effluent quality standards have been developed in consultation with the EPA with the objective of reducing impacts on the northern part of Deception Bay and enhancing reuse opportunities for the reclaimed water generated.

- The project is substantially complete and the indicated budget is to finalise construction of the asset – the value of works completed is already is approximately $37 million.
- Based on the information provided, the project is considered to be prudent and efficient. However as the project is so well developed more information on the development of costs and program history would be expected. The cost and duration of the project to date is significantly in excess of that indicated in the planning report provided. The budgeted expenditure on the plant is 3.5 times the cost indicated in the planning report and is projecting completion 5 years after that originally proposed. The scheme may have been able to be developed in a more cost efficient way.
- It is recommended that a review is undertaken of the design process and any lessons learnt incorporated into relevant future projects.

Water Main Hakae Ct-Areca Ct, Narangba Project

- The capital expenditure is proposed to be $0.08 million in the 2011/12 financial year.
- The Water Main Hakae Ct-Areca Ct, Narangba Project involves the installation of 114 metres of 150mm water main. These works were identified in a network analysis report which found that there is a fire flow deficiency in the area of Hakae Ct-Areca Ct, Narangba.
- This project is considered to be prudent with respect to the use of appropriate processes based on the information provided. The costs are considered to be efficient.

Nambour Sewage Treatment Plant

- The capital expenditure is proposed to be $53million over the 2011/12 and 2012/13 financial years.
- The Nambour Sewage Treatment Plant project involves the upgrade of the Sewage Treatment Plant as it is now operating at or close to capacity, and occasionally operating in breach of its current licence.
- This project is considered to be prudent.
- Overall, this project is considered to be efficient – costs for the works are consistent with prevailing market conditions, and is considered to be practically deliverable in the timescales indicated.

600mm Water main - P001

- The capital expenditure is proposed to be $8 million over the 2010/11-2012/13 financial years.
- The project comprises the augmentation of a 600mm waterman in the Image Flat Water Supply Scheme. The waterman stretches from Savilles Rd in the West to Nambour Leagues Club in the East, with a total length of 4,400m.
- This project is considered to be prudent with respect to the use of appropriate processes based on the information provided. The project costs are considered to be efficient based on the provided independent cost valuation.

Water Meter Replacement – 20mm Meters

- The capital expenditure is proposed to be $5 million over the 2010/11-2012/13 financial years.
- The project comprises the replacement of 6,379 of 20mm water meters across Unitywater Northern area in the 2010/11 financial year.

- Domestic water meters subject to high flow through volumes suffer degeneration in the capability of the meter to record accurate flows. The inaccuracy is manifested by under reading the volume of water passing through the meter, leading to a loss in water usage revenue which a critical source of income for Unitywater.
- Based on the above, the capital expenditure for this program of works for the 2010/11 financial year is considered to be prudent and efficient, though due to lack of information no assessment can be made regarding the prudency and efficiency of capital expenditure in FY 2011/12 and 2012/13. Consequently it is recommended that expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

WPS Pump Replacement

- The capital expenditure is proposed to be $0.2million over the 2010/11-2012/13 financial years.
- This project consists of the replacement of pump bases as well as the switchboard. Assessment of the pump station has indicated that existing pumps are in fair condition but pump bases are severely rusted and required replacement to avoid failure. The existing switchboard was upgraded from Auto-trans started to soft-started, but the rest of the switchboard is beyond its useful life.
- This project is considered to be prudent based on the list of identified assets to be renewed / replaced. Though it is recommended that Unitywater provide clarification / further information to allow confirmation of its efficiency. Based on the above, the capital expenditure for this program of works for the 2010/11 financial year is considered to be prudent and efficient, though due to lack of information no assessment can be made regarding the prudency and efficiency of capital expenditure in FY 2011/12 and 2012/13. Consequently it is recommended that expenditure for 2011/12 and 2012/13 should be further reviewed before approval.

Kawana Sewage Treatment Plant

- The capital expenditure is proposed to be $32 million over the 2010/11-2012/13 financial years.
- This project involves the upgrade to the Kawana STP is required to facilitate the implementation of the diversion of the South Buderim sewage to the nearby Kawana STP and allow for growth in the catchment.
- The need for the project has been established. However this project has not progressed sufficiently through the various procedures to be realistically assessed with regard to compliance with procedures, scope, standards, costs, timing and deliverability. It is recommended that this project is reviewed after the Unitywater complete the necessary procedures and activities to enable a meaningful review. We are aware that they are proceeding with these activities.

Noosa Sewage Treatment Plant

- The capital expenditure is proposed to be $37 million over the 2010/11 and 2011/12 financial years.
- This is Stage 2 augmentation for Noosa STP. Changes in environmental requirements for the improvement of water quality in Burgess Creek, and changes in catchment population growth predictions have lead to the definition of new requirements for the Stage 2 augmentation.
- Bases on the information provided this project is considered to be prudent. However, the works program (and delivery method) have not been finalised for this project by Unitywater. It is recommended that Unitywater develop and provide these documentations for re-assessment of the prudency of this project.

- It is difficult to provide a comprehensive assessment / review on the efficiency of the expenditure based on the information provided. It is recommended that further information / clarification is provided re the basis or derivation of these cost estimation for a more comprehensive assessment of the cost estimation.

Moreton Bay Water/Sunshine Coast Water – Heavy Vehicle Fleet Replacement

- The capital expenditure is proposed to be $10 million over the 2010/11-2012/13 financial years.
- This project appears to be prudent. The replacement program is based on assets, as identified by Councils. Assets are identified for replacement based on purchase date and industry benchmark change over criteria regarding time (ie age of asset) and utilisation.
- The level of information is consistent with Unitywater's position as a newly formed Entity.
- We understand that Unitywater is actively reviewing its plant and fleet practices and those of the previous incumbent Councils, with regard to ownership, condition, utilisation and future business operational requirements. This will be documented in a plant and fleet procurement strategy focused on business requirements, standardisation, sustainability, whole of life costs and in accordance with necessary rules and requirements and sound procurement practices such as:
  - standardising and reusing truck work bodies subject to business requirements;
  - manufacturer discounts, and
  - preferred supplier arrangements.
- In future, we would expect to see a copy of the plant and fleet procurement strategy, as indicated above. As such, we recommend that the expenditure for the 2010/11 financial year is prudent and efficient, but future years require additional review as more efficient policies and procedures are established.

6.3.8.2. Capital projects not considered efficient and prudent due to insufficient information

For the following projects no information has been provided to demonstrate prudency and efficiency:

- Water Supply Facilities – Switchboard Replacement Program
- Water Main WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline.

Each of these projects are summarised below. The full review is contained within Appendix C.3.

Water Supply Facilities – Switchboard Replacement Program

- The capital expenditure is proposed to be $5 million over the 2010/11-2012/13 financial years.
- The Water Supply Facilities – Switchboard Replacement Program involves electrical switchboards and instrumentation mounted therein is replaced to ensure continuity of service and compliance with electrical and instrumentation standards and legislation. The condition assessment was conducted by a Team including an RPEQ (Electrical), a licensed Electrician, and an experienced instrumentation fitter. Relevant legislation and Australian and New Zealand Standards were utilised to formulate the assessment criteria.
- Additional information was not provided in time for this report and hence an assessment of the prudency and efficiency could not be made.

Water Main WM-NLC (500mm x 2800m) off take and supply main from Northern Interconnected Pipeline

- The capital expenditure is proposed to be $4.3 million over the 2010/11-2012/13 financial years.
- A new water main of 500mm diameter and 2,800m long is required to link Boundary Reservoir Complex with the Northern Interconnected Pipeline.
- Information regarding WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline has not been received in time for review and inclusion in the Queensland Competition Authority reporting deadline. Hence, the prudency and efficiency of this project could not be assessed.

6.3.8.3. Capital projects not considered efficient and prudent

Based on the information provided the following project is not considered to be prudent and efficient:

- Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML)

Water Supply Service Reservoir, Boundary Road Reservoir No 3

- The capital expenditure is proposed to be $4.9 million over the 2010/11 and 2011/12 financial years.
- A new reservoir of 24 ML capacity is required to meet the additional demand from the Northern Growth Corridor in accordance with the Mango Hill, Griffin and Dakabin Local Area Plans.
- This project has been placed on hold due to recent advice from Linkwater that bulk potable water may be supplied to the Petrie-Kallangur and Mango Hill water supply zones from the south rather than by the planned link between the Northern Interconnector Pipeline and Boundary Road reservoir complex. There is a high probability that this project may not proceed within the next 5 years or at all if the Petrie Kippa Ring Rail link does not proceed.
- Based on the information regarding this project from Unitywater, an assessment of its prudency and efficiency is not required. It is recommended that this project is removed from the budget.

6.3.8.4. Comparison of Process Project Costs

A comparison between projects based on the current and future EP, capital costs and unit cost per EP will only be meaningful if the projects are based on equivalent schemes, which includes the following factors:

- Scope of work –design and construction of the additional process units
- Key drivers for the upgrade / new project – some projects may require upgrade due to inability to comply with current / future licence requirements, more than increase in population.
  This would also affect the technology adopted for the upgrade for the plant – more advanced / complex technology may be required to meet the stringent licence requirements, which would imply higher capital costs.
- Current performance versus future requirements
- Construction site and accessibility

A comparison was made of the unit cost per EP the process projects reviewed for Unitywater. This is shown in Table 5-13.

Whilst the costs are of a similar order of magnitude (ie between $1,000/EP and $6,000/EP), there is some variation, due to differences in scope of works, required quality of the treated effluent and the plant size.

Table 5-13 Comparison of process project costs per EP

Project	EP (previous)	EP (future)	Increase in EP	Estimated Cost	Unit cost per EP	General Scope of Work
South Caboolture	40,000	80,000 (Year 2021)	40,000	$42.5 million	$1,063	Sequencing batch reactor (SBR); Outfall pipeline
Burpengary	31,000	49,900	18,900	$22.4 million (remaining cost for 2012/13)	$3,143 (total of $59 million divided by increase in EP)	Aerobic Digester; Disinfection system; Membrane bioreactor (MBR).
	Note: $37 million spent to date on the completed works					
Kawana	The upgrade to Kawana STP was to address the increase in flow due to the diversion of South Buderim sewerage. Unit cost per EP will not be valid in this case. In addition, response to RFI – "planning for Kawana STP augmentation has not progressed to a stage where meaningful cost estimates and schedules can be made over the life of the project." The final planning report scheduled to be completed late 2010.					
Noosa	< 50,000	56,000	6,000 (say)	$37 million	$6,167	Biological nutrient removal (BNR) extended aeration; aerobic digestion
	This project focuses more on meeting the new and more stringent EPA licence requirements. Indicated in reports as well, that it is currently not meeting the licence requirements already.					
Nambour	32,000	16,000	16,000	$52.7 million	$3,290	Treatment upgrade to Class A effluent; Digester; Belt Press
	This project focuses more on meeting the new and more stringent EPA licence requirements.					

6.3.8.5. Summary of assessment of Unitywater capital expenditure spend

Of the 13 projects reviewed by us, the following results were established:

- Five projects are considered prudent and efficient for all financial years.
- Five projects are considered prudent and efficient for the initial financial year, with insufficient information provided for following years (although in line with the development stage of the project).
- For two projects no supporting information was provided. Therefore an assessment of these projects cannot be made and they cannot be justified as prudent and efficient.
- One project was identified as not prudent and efficient. The Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML) is identified as no longer being required and it is recommended it is removed from the budget.

6.3.8.6. Demand forecast review implications

We have reviewed the draft and the draft final versions of the *SEQ Interim Price Monitoring: Assessment of Projected Demand* (Frontier Economics, 2010). The final version of this report was not available at the time of writing and we notes that subsequent changes may be made to the report's recommendations. The draft version was distributed to all Entities prior to the production of the draft final version.

As stated by Frontier Economics:

> *"the quality of demand forecasts has a direct impact on... capital expenditure - particularly where growth is a major driver of system augmentations."*

One of Frontier Economics key recommendations is to increase the predicted properties connected to water and wastewater services in line with data produced by the Planning Information and Forecasting Unit (PIFU) within the Office of Economic and Statistical Research. These increases are predicted by activity (water, wastewater) geographic area and by type (residential and business). For Unitywater the changes are generally insignificant, around 1% additional demand predicted.

In addition, Frontier Economics has made several comments regarding the consistency of short and long-term forecasts. Frontier Economics states

> *"From consultation with Unitywater, Frontier understands that Unitywater treats both short-term demand forecasting and long-term demand forecasting as separate undertakings. Specifically it adopts several different assumptions between the two, the most important being that it assumes a higher per person per day consumption level for long-term forecasting than it does for short-term forecasting. Long-term volume forecasts for residential water demand are based on the PWCM initial target of 230 L/p/d...*
>
> *Frontier considers that demand should be broadly consistent between both short and long-term forecasts. By consistency Frontier does not mean to imply that the forecasts should be exactly the*

same; they should be broadly similar once all the meaningful differences between the two series are accounted for. Although the forecasts are undertaken for different purposes the primary objective should always be to develop the most realistic set of forecasts based on the best available data and future expectations."

Economics concludes:

"Frontier has not made any adjustments to Unitywater's long-term demand forecasts, but recommends Unitywater review its methodology as part of its ongoing business planning and improvement program."

As Frontier Economics has not recommended a change to the long term demand forecasts for capital works planning, no projects will be impacted.

6.3.8.7. Operational expenditure review implications

The impact of the proposed changes will, ultimately have an impact on the operational budget. However, as the operational budget is currently based on the previous budget with a percentage increase, rather than on an asset by asset basis, the impact of these changes will be minimal in the short term.

6.3.8.8. RAB review implications

The capital expenditure programs will be rolled up into the RAB. We have previously produced a report on the auxiliary data component of this project, including a review of the RAB. The recommendations changes to the capital expenditure program will have not been included within the RAB. At present there is no automatic linkage between the capital expenditure program and the RAB within the Required Information Templates. If the above recommendations are accepted by Unitywater and the Authority, it is recommended that a recalculation of the RAB and RAB roll forward is considered.

6.3.9. Proposed revised template

A revised template will be provided to the Authority based on the above recommendations following review of the draft report by Unitywater. The revised template will include the removal of any projects not found to the prudent and efficient, as shown below:

- **Table 5-14 Proposed revisions to Unitywater's information requirement template**

	FY10/11 Total	FY11/12 Total	FY12/13 Total
Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML)	$ 515	$ 4,283	$ 163
Water Supply Facilities - Switchboard Replacement Program	$ 738	$ 2,266	$ 1,663
Water Main WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline.	$ 2,034	$ 2,131	$ 87
Total	$ 3,287	$ 8,680	$ 1,912

We note that there are some variations between the Required Information Template provided and Unitywater's project list. These should be resolved.

No attempt was made to extrapolate from sample set to the entire capital expenditure forecast.

6.3.10. Capital assessment summary

The following key conclusions have been made from the analysis of Unitywater's capital expenditure forecast:

- Of the 13 projects reviewed by us, the following results were established:
  - Five projects are considered prudent and efficient for all financial years.
  - Five projects are considered prudent and efficient for the initial financial year, with insufficient information provided for following years (although in line with the development stage of the project).
  - For two projects no supporting information was provided. Therefore an assessment of these projects cannot be made and they cannot be justified as prudent and efficient.
  - One project was identified as not prudent and efficient. The Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML) is identified as no longer being required and it is recommended it is removed from the budget.
- From our analysis of the information provided, we conclude that Unitywater has established well defined policies and procedures which are in agreement with good industry practice. Unitywater is currently establishing further governance structures to underpin the process of approving capital expenditure.

Our additional findings are as follows:

- Unitywater has provided a submission which substantially complies with the Authority's guidelines. The Information Required Template was completed for the key categories.
- Unitywater has identified that there have been problems with the data regarding the assigning of the correct classification of assets and cost drivers within the historical capital expenditure. The document mentions that these issues will be rectified when the actual audited results are received. We recommended that the capital expenditure allocated to sub categories within the Information Required Template is reviewed, and if required, updated.
- In addition, no establishment costs are included in the historical capital expenditure. We recommend that the templates are updated once information is available on the council's audited accounts and establishment costs.
- A project list was provided for future capital projects. This is a highly useful and comprehensive tool which links each project to the activity (water, wastewater,) geographical area, project drivers, asset class and timing of expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories. The use of Unitywater's spreadsheets allows for a highly disaggregated system of cost recording and continued use of this model (or similar versions of this model) is recommended

- Currently Unitywater is reviewing the varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand that work is underway to create a consolidated version of these standards. We recommend that this process is finalised and that a consistent set of standards is applied across both districts.
- We note that documentation is substantially complete for most projects we have reviewed. We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

6.4. Unitywater operational expenditure review

6.4.1. Overview of submission to Authority

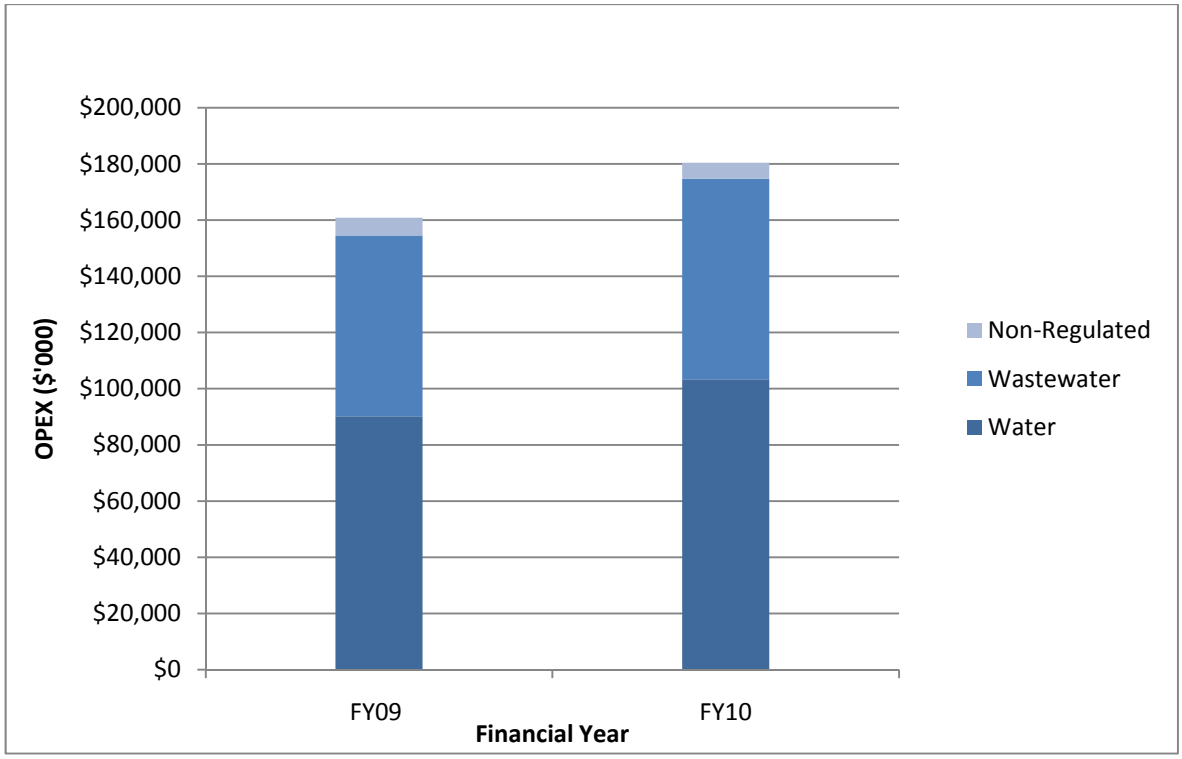
6.4.1.1. Operational expenditure from 1 July 2008 to 30 June 2010

Unitywater has included historical operating expenses data for FY09 and FY10 in its submission to the Authority. Unitywater advised that the information has been sourced as follows:

- FY2009 – Due to the disparate information available directly from Councils, the alternate information source used was the Enterprise Financial Model. This model was the tool utilised for the collation of data by the SEQ Water Reform Project. This model is an externally audited document.
- FY2010 – As the final financial results for the respective Councils were not available at the time of data collection, Councils' third quarter budget estimates were used.
- FY2011 to FY2013 – Detailed budget information by cost code and natural account was used to populate information for the forecasted years. The disaggregated data used was reconciled to Unitywater's budget.

We consider that the approach and data sources used by Unitywater are appropriate for the purposes of completing the Information Requirement Templates.

We show in Figure 5-7 below, the combined Council operating expenditure for water and wastewater services in FY09 and FY10 was $228.1M and $294.6M respectively.



Source: Unitywater Information Requirements Template

- **Figure 5-7 Historical operating expenditure for councils that form Unitywater**

Unitywater, along with the other SEQ water Entities, is in their first few months of operation. Hence, an assessment of the actual operating expenditure against previous year's budgets under the Unitywater business model is not possible at this stage (an assessment of each of the Councils performance against budgeted expenditure is possible, but it is not appropriate for this price monitoring assessment).

Nonetheless the evaluation of actual and budgeted operating expenditure in future price monitoring assessments by the Authority would be considered standard regulatory practice and indeed would be valuable in helping each Entity identify areas of improvement when developing their respective operating expenditure budgets.

In comparing historic and forecast operating expenditure Unitywater has noted in its submission:

> *"It is difficult to make meaningful comparisons of costs between FY2011 and FY2010 when Councils owned and operated the assets. This is because Councils' water and sewerage businesses operated within the Councils' broader corporate structure, and utilised Council-wide resources. Historic costs for water and sewerage will therefore be heavily influenced by how these corporate and other common costs were allocated, compared to how those costs currently present for Unitywater. Comparisons to FY2010 require further caution as costs in this year are based on a Council estimate only. This estimate may not be exhaustive and may differ significantly from actuals depending on the robustness of the Councils' estimates."*

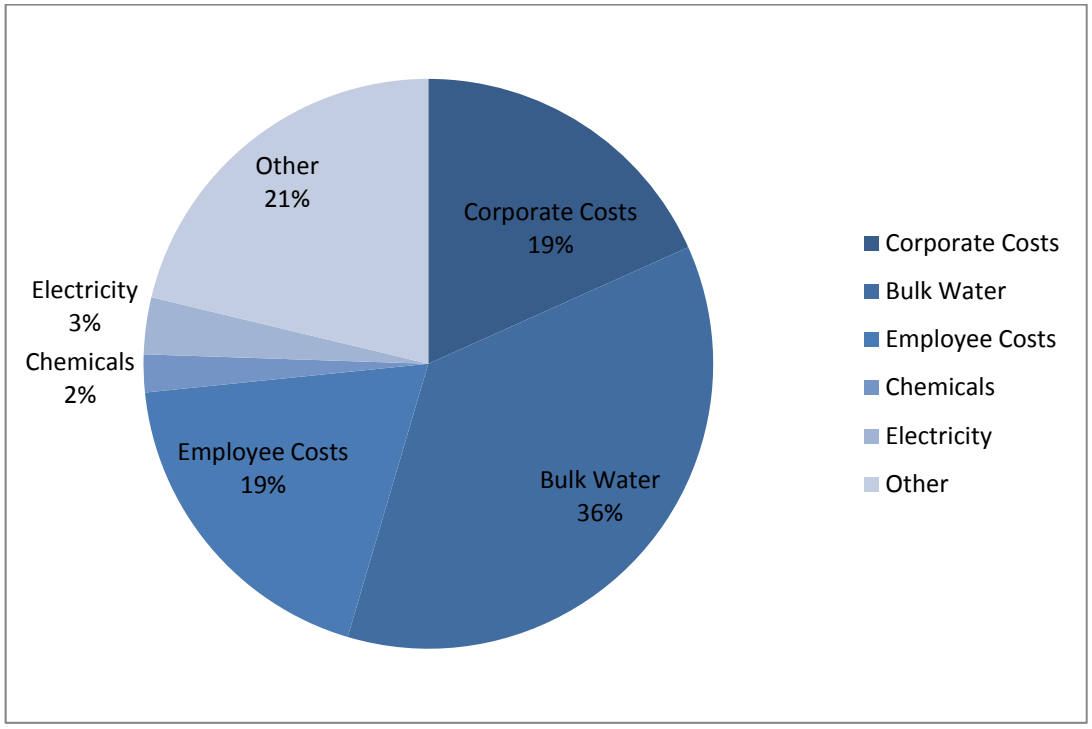
Given the history of the formation of Unitywater, we consider Unitywater's above statement to be reasonable and appropriate.

6.4.1.2. Operational expenditure from 1 July 2010 to 30 June 2013

Unitywater has an operating expenditure budget of $779M for the interim price monitoring period (FY10, FY11 and FY12).

The major cost categories within the operating budget are bulk water purchases, corporate costs, employee costs, electricity and chemicals. We have summarised this in Figure 5-8.

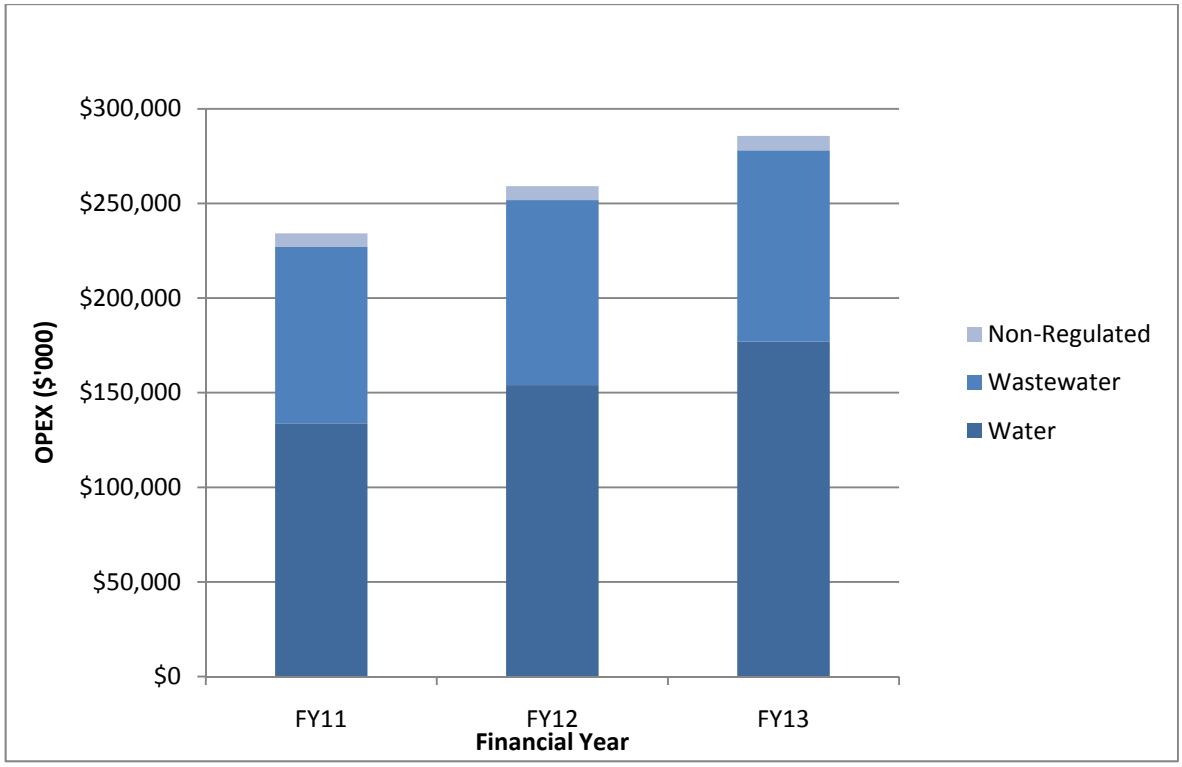
The Corporate Cost and Employee Cost categories have been defined in *SEQ Interim Price monitoring Information requirements for 2010/11* (2010, QCA) and are repeated in the glossary of this report.



Source: Unitywater Information Requirements Template

- **Figure 5-8 Overview of Unitywater operating expenditure for FY11-13**

Unitywater has forecast that that its operating expenditure will increase from $234.2M in FY11 to $285.6M in FY13. Refer to Figure 5-9.



Source: Unitywater Information Requirements Template

- **Figure 5-9 Forecast Unitywater operating expenditure for FY11-13**

Forecast operating expenditure was developed by identifying relevant cost escalation indices. For volume related costs, such as chemicals and electricity used in treatment processes and pumping, growth factors have also been identified. The indices and growth factors used in Unitywater's submission are summarised in the table below.

- **Table 5-15 Unitywater operating expenditure indices and growth factors**

Cost Group	Cost Index		Growth Factors	
	2011/12	2012/13	Sunshine Coast	Moreton bay
Population			2.35% FY12 and FY13	2.29% FY12 and FY13
Direct Labour	4.0%	4.0%		
Bulk Water				
-Sunshine Coast	28%	22%		
-Moreton Bay	18%	15%		
Electricity	7.9%	7.9%	Aligned to percentage change in bulk water volumes	
Chemicals	3.5%	3.5%	Aligned to percentage change in bulk water volumes	
Other Costs	2.9%	2.9%		

Source: Unitywater Price Monitoring Information Return

We show in Table 5-16 and Table 5-17 below summary of Unitywater's total operating cost from FY11 to FY13 for water and wastewater services. Operating costs for water and wastewater services are forecast to increase by 32% and 9% respectively. However, by excluding the pass-through costs for the supply of bulk water, operating costs for water services increase by 7%.

- **Table 5-16 Unitywater forecast operating expenditure for water, FY11-13 ($000)**

	2010/11	2011/12	2012/13
Bulk water costs	75,334.2	93,036.2	114,175.5
Retail operating costs:	-	-	-
Customer service and billing	2,604.7	2,738.5	2,836.1
Regulated demand management costs	-	-	-
Community service obligations	-	-	-
Other costs	3,069.2	5,705.8	5,876.6
Distribution operating costs	2,312.9	2,486.1	2,674.6
Employee expenses	16,567.5	17,269.9	17,949.6
Contractor expenses	6,286.1	6,448.0	6,632.0
GSL payments	-	-	-
Materials and services	4,177.4	4,300.8	4,427.8
License and regulatory fees	43.7	44.9	46.1
Natural resource management costs	-	-	-
Corporate costs	22,983.7	21,586.7	21,868.7
Establishment costs	-	-	-
Indirect taxes	390.9	415.2	415.2
Total operating expenditure for water	133,806.3	154,032.3	176,902.3

Source: Unitywater Information Requirements Template

- **Table 5-17 Unitywater forecast operating expenditure for wastewater, FY11-13 ($000)**

	2010/11	2011/12	2012/13
Retail operating costs:	-	-	-
Customer service and billing	2,830.2	2,935.3	3,038.9
Regulated demand management costs	-	-	-
Community service obligations	-	-	-
Other costs	3,267.9	6,069.6	6,251.3
Distribution operating costs	10,463.7	11,322.2	12,260.0
Employee expenses	26,089.8	27,200.8	28,275.1
Contractor expenses	18,199.7	18,708.9	19.249.0
GSL payments	-	-	-
Materials and services	6,301.7	6,723.0	6,909.9

	2010/11	2011/12	2012/13
License and regulatory fees	479.1	493.1	507.2
Natural resource management costs	-	-	-
Corporate costs	25,135.1	23,843.7	24,207.5
Establishment costs	-	-	-
Indirect taxes	401.8	425.6	425.6
Total operating expenditure for water	93,168.9	97,722.1	101,124.6

Source: Unitywater Information Requirements Template

6.4.2. Operational costs definition

Operating expenditure can be broadly described as the day to day costs incurred by the Entity in delivering water and wastewater services to its customers.

These costs can be incurred from a range of activities. Some of these expenses are typical of any business, such as labour, office accommodation and other corporate overheads. Other costs are specific to the water and wastewater industry including:

- Bulk water - costs charged by the SEQ Bulk Water grid manager for the delivery of bulk water.
- Retail costs - expenditure related to customer enquiries billing and revenue collection.
- Operations and maintenance - materials and services necessary to ensure that water and wastewater infrastructure operate efficiently and effectively.
- Treatment - costs for the processes required to treat water and wastewater to ensure compliance with relevant health and environmental standards.
- License fees and regulatory compliance - paid to government departments and regulatory Authority's.

Accepted industry practice is for operating expenditure to be recovered from customers in the year that it is incurred. In contrast, the recovery of capital expenditure from customers is generally spread over many years. This means that from year to year operating expenditure will fluctuate according to current market conditions.

6.4.3. Adequacy of operational expenditure information provision for completion of operational expenditure templates

Following our review of the Unitywater's' submission we conclude that the information return substantially complies with the Authority's requirements. Aside from minor information gaps we consider the submission to be suitable for assessment of reasonableness.

We highlight the key points arising from our review below:

- Costs have been allocated against most of the categories identified in the template for the interim price monitoring period.

- As this is the first year of operation for the Entities, forecast budgets have been provided for the interim price monitoring period (FY2011-13) only. This is in line with the Authority's reporting requirements for the interim monitoring period.
- Expenditure for activities across the two geographic areas shows no significant step change in expenditure for the monitoring period.
- Details of Third Party and Related Part Transactions are provided in the supporting information, including an outline of the price comparisons used when negotiating services with Councils.

For further detail on the information provided by Unity Water in the information return please refer to Appendix C.4.

6.4.4. Operational expenditure data selection

On commencement of this assignment, the Authority advised us that a representative sample is to include:

> *"the top 10% of retail/distribution operating costs by value in each activity and geographic area, over the forecast period and for 2010/11. The sample should also include at least 50% of the total retail/distribution operating expenditure over the forecast period and for 2010/11 – if not, an additional random sample of assets comprising 30% (by number) of remaining assets is required."*

Bulk water costs of $283M contribute a significant portion of the overall Operating Costs for Unitywater. The prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are not controllable by Unitywater; hence, these have been excluded from the pool of costs from which the sample will be selected.

The representative sample for Operating Costs was selected as:

- Employee Costs
- Corporate Costs
- Electricity
- Chemicals

Together, these account for 66% of the Operating Costs for FY11 to FY13, excluding bulk water costs. We provide in Table 5-18 details the percentage of Operating Costs represented by the sample for each geographic area and activity.

Table 5-18 Unitywater sample as a percentage of total operating costs

Geographic area	Water activity	Wastewater activity
Moreton Bay	70%	65%
Sunshine Coast	67%	64%

6.4.5. Operational expenditure assessment method

The operating expenditure assessment was carried out in two stages:

- Stage 1 – Identification and collation of information
- Stage 2 - Assessment of reasonableness
- These stages are describes as below.

Stage 1 – Identification and collation of information

Following the selection of a representative sample of operating cost categories, Stage 1 involved the identification of information required for the review. A Request for Information (RFI) was issued for each project indicating the type of information required.

Stage 2 – Assessment of reasonableness

Our approach to assessing Unitywater's operating expenditure is to answer the following three questions:

- Do the policies and procedures that underpin the operating budgets represent good industry practice?
- Can the operating costs in aggregate and major cost categories be considered reasonable?
- Are the necessary systems and programmes in place to provide the Authority in future submissions with sufficient information for informed pricing and reporting?

From our experience working with several water utilities in Australia and around the world policies and procedures for the development of operating expenditure budgets that reflect *good industry practice* would ensure that:

- a consistent approach and standards are used across the entire area of operation
- the budget process was approved by senior management
- the process includes an evaluation of actual expenditure against budgeted expenditure for previous years to identify the underlying causes of overspend or under spend and to ensure that poor assumptions are not carried forward to future years
- where sufficient data is available zero-base budgets are developed periodically to verify forecast expenditure;
- protocols for changes and communications have been defined
- parameters that apply across the organisation have been identified
- a programme for budget review and approval are in place
- any changes made during the review process are clearly defined with justifications and communicated to the relevant parties
- final budgets have been approved by senior management
- For expenditure to be considered *reasonable* the Entities will need to demonstrate that:
- changes to the allocation of operation costs on a geographic basis or activity basis over the monitoring period are be backed by sound reasoning

- aggregate operation costs for water and wastewater services are comparable with other Australian water utilities of similar size
- cost categories that are driven by volumes or quantities have forecast costs using growth actors in line with population growth, overall water demands, or changes in the number of customers
- cost escalation indices are relevant to the cost category being considered and are in line with historic trends and related industry projections

Our assessment recognises that the Unitywater is newly formed and that the information systems and processes currently in place may not be the same of those expected in a mature regulated industry. Moving forward, Unitywater will need to show that:

- Developed operational budgets from fully auditable financial models that accurately reflect growth, and forecast cost escalations.
- Costs can be allocated by activity, geographic areas, asset class and by cost driver to enable as per the Authority's Information Requirement Template.

6.4.6. Workforce Agreement

The *SEQ distribution and Retail Water Reform: Workforce Framework 2009* (2009, Queensland Government) was established by the Councils of Mayors (SEQ) to assist Councils, employees and the new water Entities during the water reform process. The objective of the framework is to establish the terms and conditions of employment that will be applied during the water reforms.

The framework applies to both employees transferred to a new water Entity from a Council, and those retained by Council to undertake Service Level agreements (SLA) on behalf of a new water Entity. The framework expires three years from when either the employee transfers to the new Entity, the employee is notified they will remain with Council, or 30 June 2013 for a new employee who joins the new water Entity after 1 July 2010.

The framework is underpinned by the following principles:

- Public ownership of water assets is to be retained
- Labour savings are not a driver for reform
- Staff and unions have been, and will continue to be engaged throughout the reforms
- There will be no forced redundancies of employees affected by reforms
- There will be no forced relocations for 12 months from the date of transfer
- Workers' entitlements and conditions will be protected
- The terms and conditions of employment contracts will be honoured

The Queensland Government has also enacted legislation to ensure that employees transferred from councils to the new water Entities are protected (*South-East Queensland Water (Distribution and Retail Restructuring) and Natural Resources Provisions Act 2009 and Amendments*).

In undertaking the assessment of Unitywater's operating costs we accept that the Workforce Framework imposes constraints on the Entities, over and above those expected with other businesses.

The most significant constraint is the "no forced redundancies" principle. The framework ensures that there are no forced redundancies or no overall loss of employment directly as a result of the water reforms within the councils of the new water Entities during the reform period (1 July 2010 to 30 June 2013).

The framework limits the degree that efficiency of labour can be achieved from FY11 to FY13. Where the transferred number of employees results in a surplus number of employees in the new water Entities organisational structure the CEO of the new Entity is to consider retraining or redeployment options.

The identified related costs arising from the Framework include:

- New industrial agreements (within 12 months of the transfer of employees)
- Accrued entitlements are to be transferred to employees (long service leave, annual leave, sick leave)
- Lump sum or employee salary in lieu of motor vehicle or other entitlements
- Appropriate and reasonable training and assistance to transferring employees
- Redeployed to a lower level, salary maintained for 12 months
- Compensation for excessive travel distance (relocation costs or greater than 5km from previous workplace)

6.4.7. Commentary on business processes for operating expenditure budgeting

We have reviewed the guidelines for the preparation of 2010/11 Unitywater operating expenditure budgets. The document provides a comprehensive guide to the development and approval process for the operating budgets including:

- Outline of the budget process;
- Who has approved the process;
- Responsibilities;
- Budget approval and development;
- Protocols for changes and inter-council communications;
- Parameters to be applied (eg CPI);
- Review and approval programme; and
- Schedules to be produced.

The budgets are underpinned by zero base budgets where possible. The chemical and electricity models in particular, use historical analysis of resource usage and growth factors to forecast chemical and electricity usage in subsequent years.

Conclusion

The operation expenditure budget process use by Unitywater represents good industry practice. In conclusion we recommend that the Authority accepts Unitywater's operational expenditure budget as being reasonable.

6.4.8. Summary of assessment of Unitywater operating expenditure

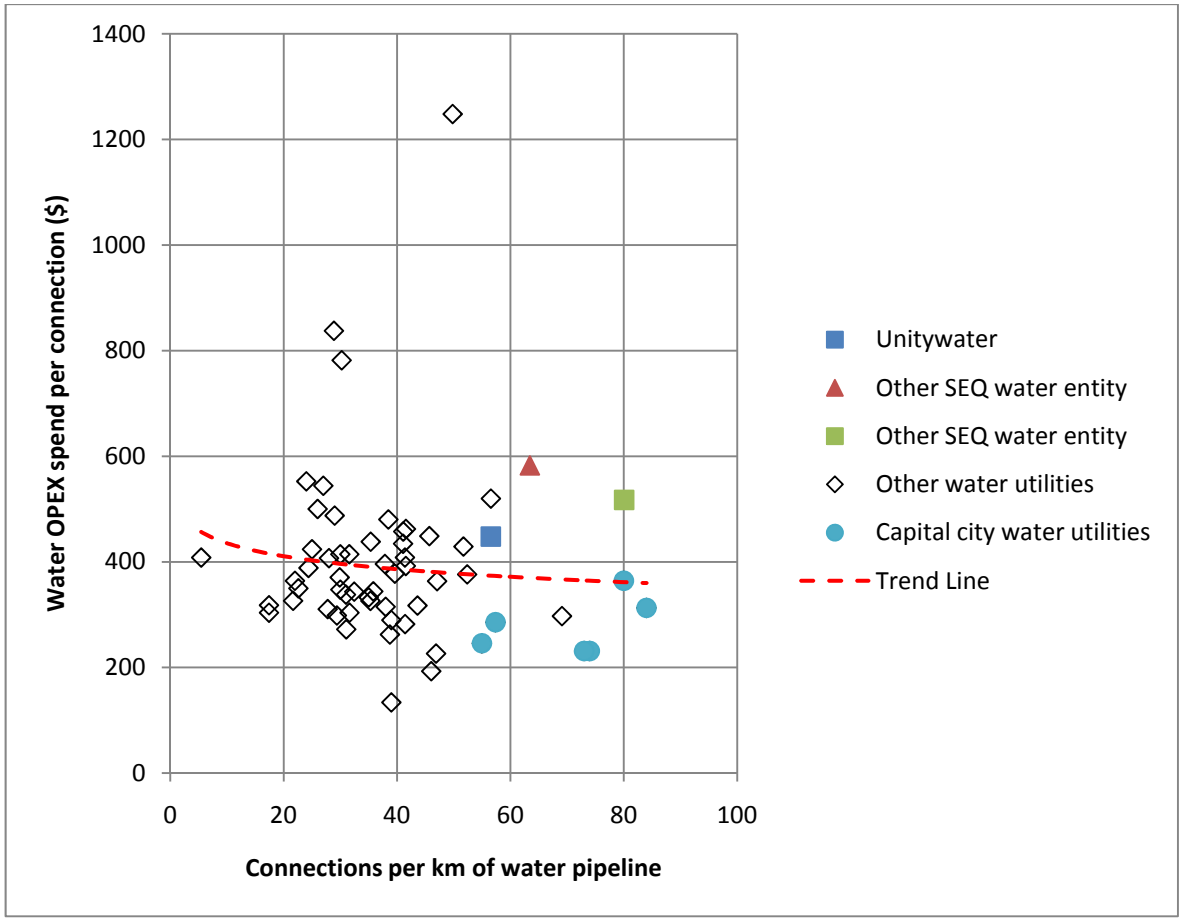
6.4.8.1. Costs in aggregate

Total operating expenditure

Unitywater's' submission to the Authority shows an increase in operating expenditure for water and wastewater services from $154.5M in FY09 to an estimated $278.0M in FY13. This equates to an average annual increase of 15.8% for the period, significantly above inflation. Unitywater has advised us the key cost drivers behind the increases are:

- Bulk water unit cost increases
- Increased demand due to population growth, and recently, bounce back in consumption after lifting of water restrictions
- Compliance with environmental standards
- New corporate functionality
- New retail functionality

When assessing the aggregate operation costs comparing operating expenditure per connection will tend to favour the larger utilities that have a large customer base. Likewise, comparing operating expenditure per pipeline length will tend to favour smaller utilities. To be able to show the relative performance of Unitywater's operating expenditure costs with their peers a "two dimensional" normalisation was used to develop a cost curve for water and wastewater services.



Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

- **Figure 5-10 Comparison of Unitywater's FY11 operating expenditure spend on water with other Australian water utilities**

In Figure 5-10 we compare the operating expenditure on water services for a range of Australian water utilities. Data was sourced from National Water Commission which reports 2008 expenditures for several water utilities around Australia. A CPI index (*ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities)* was applied to the data to adjust the costs to 2010/11 dollars. Water utilities from other Australian capital cities have also been highlighted.

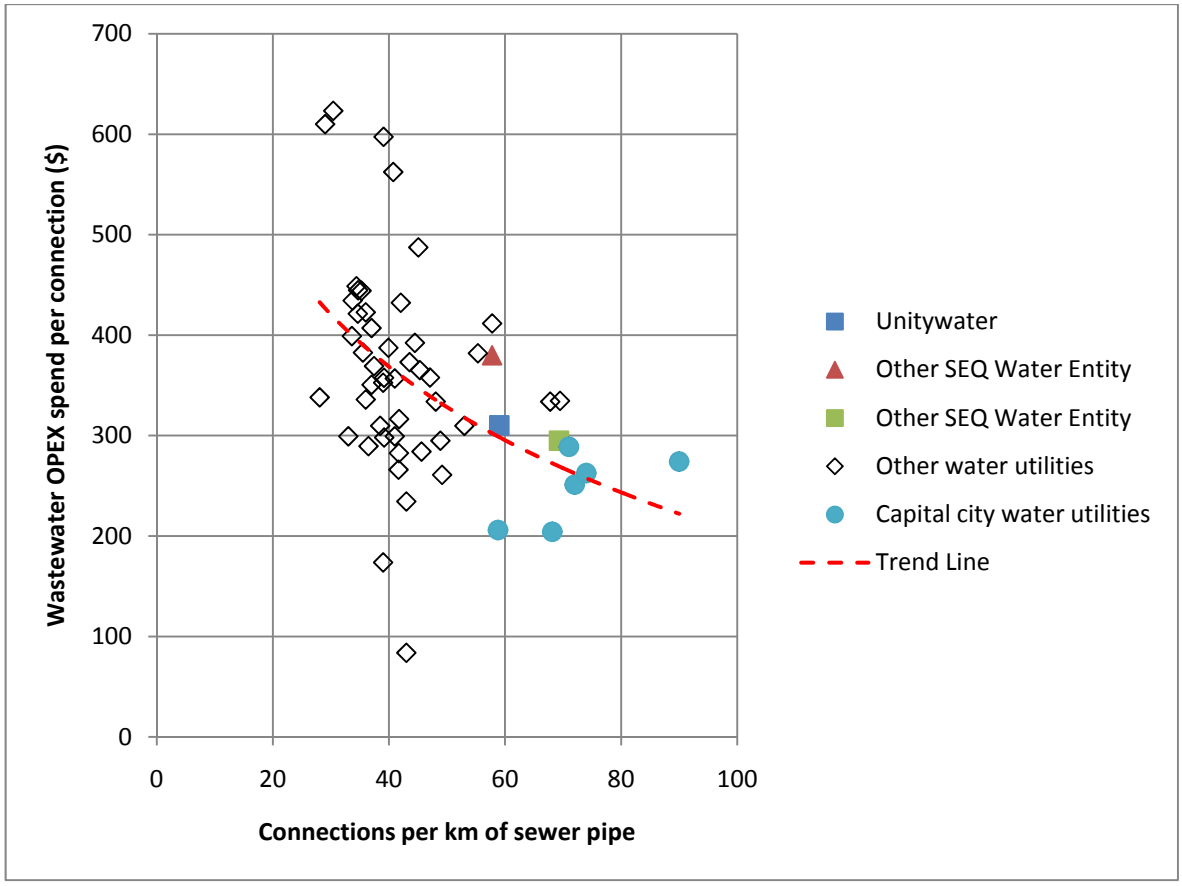
The chart shows that Unitywater's operational costs, as with the other new SEQ water Entities, are generally higher than those of similar sized water authority's. This is due in part to the pass-through cost for bulk water. As we show in Table 5-19, bulk water costs Unitywater's operating area ($1.07-1.65/kL) are significantly higher than bulk water charges in Sydney ($0.59/kL) and Melbourne ($0.67-0.72/kL).

Table 5-19 Comparison of bulk water costs

Water Utility/area	Bulk water cost ($/kL)	Controllable Water operating expenditure (FY11) ($/connection)
Sunshine Coast	1.07	173
Moreton Bay	1.65	
Allconnex Water	0.93-1.84	188
Queensland Urban Utilities	1.45-2.09	147
Sydney Water Corporation	0.58	139
City West Water	0.72	130
South East Water	0.70	97
Yarra Valley Water	0.67	168

Source: Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template; Essential Services Commission Review for City West Water, South East Water, Yarra Valley Water; IPART Review of Sydney Water Corporation, Sydney Catchment Authority.

Although a full set of data is not available a comparison was made for the controllable operating expenditure (ie total operating expenditure less bulk water charges) for the three new SEQ water Entities, and metropolitan water utilities in Sydney and Melbourne. On a per connection basis, Unitywater's controllable operating expenditure is higher than its interstate peers.



Source: National Water Commission National Performance Report (CPI applied), Queensland Urban Utilities/Allconnex/Unitywater Information Requirements template.

- **Figure 5-11 Comparison of Unitywater's operating expenditure spend on wastewater with other Australian water utilities**

We benchmark Unitywater's wastewater operating expenditure in Figure 5-11.

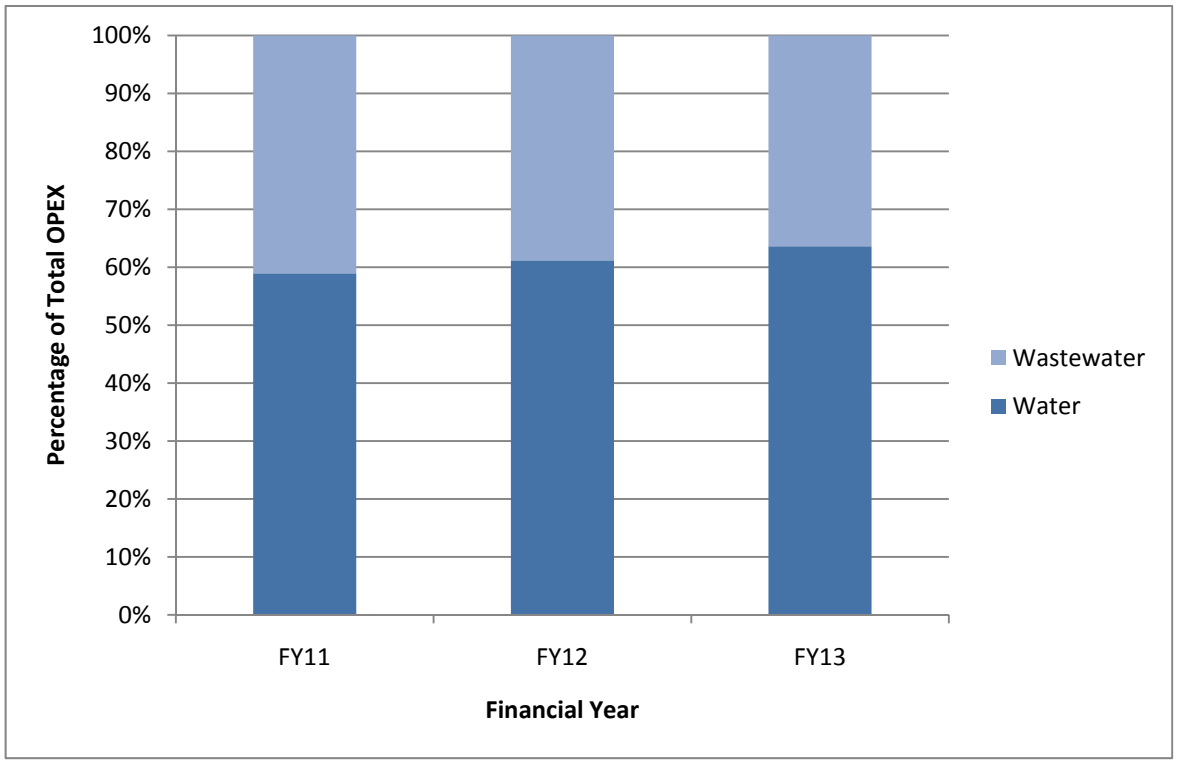
For the wastewater activity treatment costs are a significant cost driver in addition to the network size and number of customers. Treatment costs will vary depending on the number of treatment plants, size of treatment plants and the level of treatment required or recycled water schemes. The variance in treatment costs is shown by scatter of data points from the trend line.

Unitywater's operational costs for wastewater is shown to be on the trend line, and we conclude that Unitywater's proposed wastewater operating expenditure spend for FY11 is reasonable.

From this we conclude that Unitywater's' proposed operating expenditure for FY11 is in line with those of other Australian water authorities.

Operating expenditure by activity

Unitywater undertakes three activities: water services, wastewater services and non-regulated services. We show in Figure 5-12 the proportion of operating costs for water and wastewater services for Unitywater.



Source: Unitywater Information Requirements Template

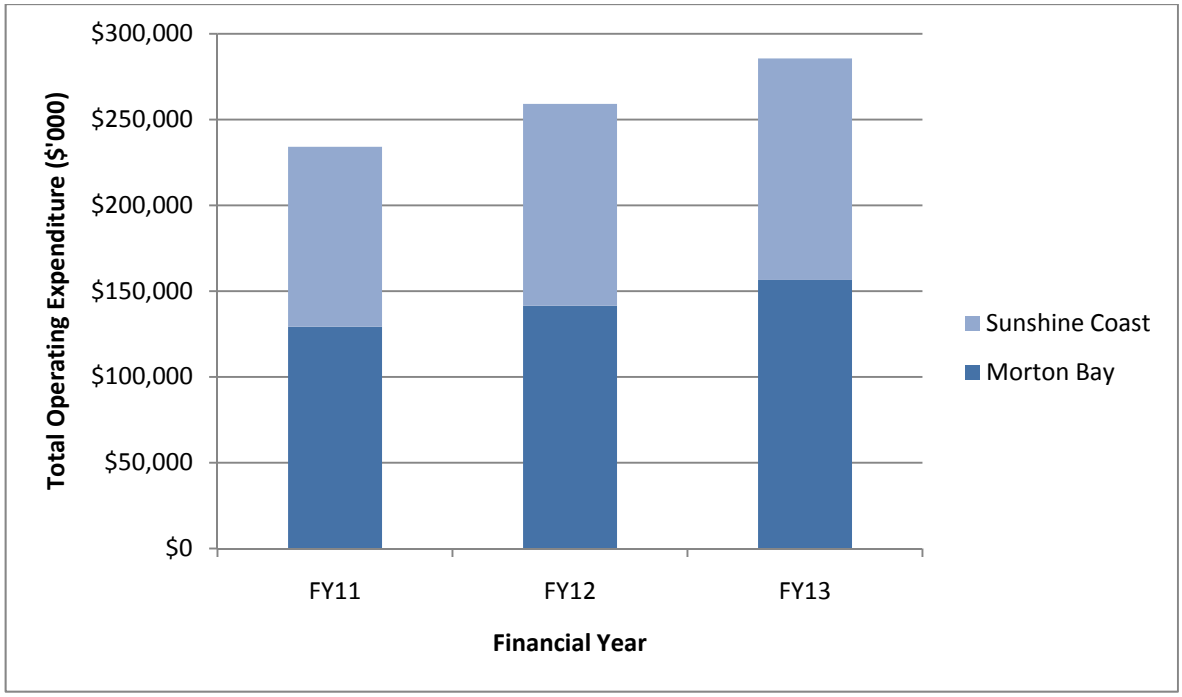
- **Figure 5-12 Unitywater operating expenditure by activity for FY11-13**

As noted in the National Water Commission's National Performance Report, the trend is for larger utilities (ie those with more than 100,000 connections) to spend relatively more on water operational costs than for wastewater. Unitywater's operating expenditure profile for FY11 to FY13 is consistent with this trend.

The increasing proportion of operating expenditure on water services over the interim monitoring period can be attributed to the expenditure on bulk water increasing at a greater rate than the other operating expenditure cost categories.

Operating expenditure by geographic area

The two Council areas that contribute to Unitywater's area of operation are similar in size. Moreton Bay attracts 55% of operating expenditure, with the remaining 45% allocated to the Sunshine Coast geographic area as we show in Figure 5-13.



Source: Unitywater Information Requirements Template

- **Figure 5-13 Unitywater operating expenditure for FY11-13 by geographic area**

The chart shows that the relative proportion of expenditure between the two geographic areas remain consistent throughout the interim price monitoring period.

Conclusion

When considered in aggregate, we consider Unitywater's operating costs for water and wastewater services are to be reasonable from FY11 to FY13. However, we note that the controllable costs for water services are higher than those of other Australian Water Utilities of similar size.

The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs.

We have not identified any significant change in the geographic allocation of operating expenditure.

6.4.8.2. Major operational costs

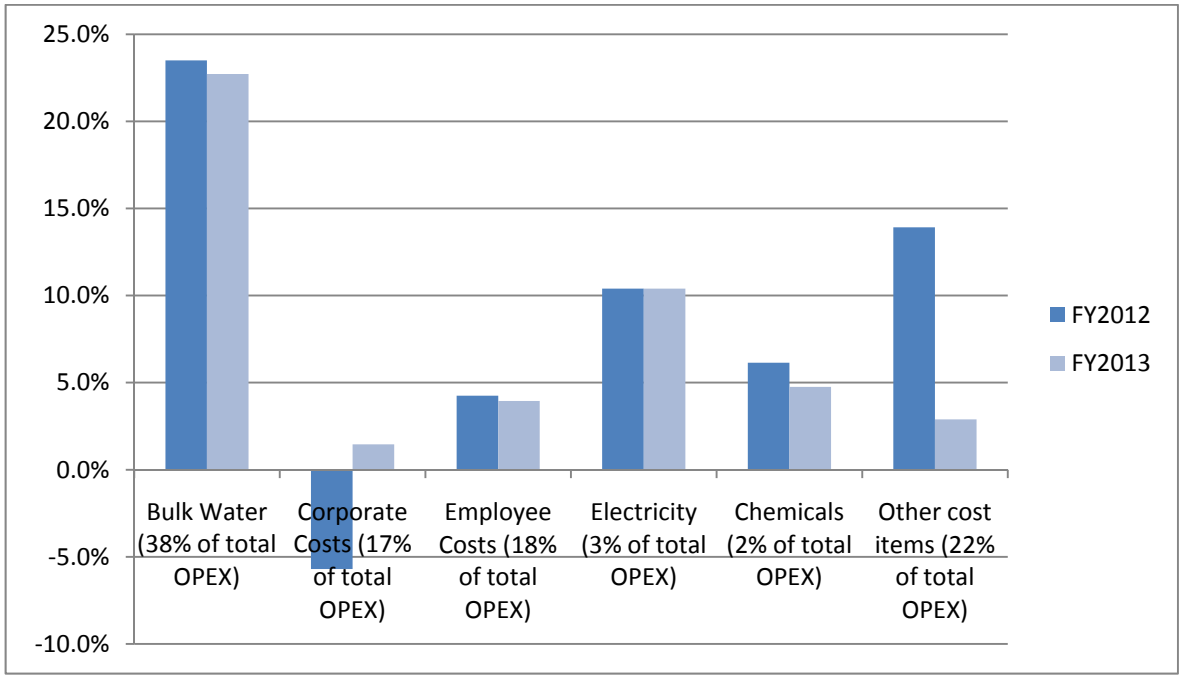
The operating programs or costs centres that comprise the greatest proportion of operating expenditure for the interim price monitoring period, that is, from 1 July 2010 to 30 June 20103, are summarised below. We have presented these costs in Table 5-20 which account for 79% of overall operating costs for the period FY11 to FY13 and briefly discussed these in the following sections of this report.

Table 5-20 Unitywater major operating costs

Cost Centre	FY2011	FY2012	FY2013
Major cost items:			
Bulk water	75.3M	93.0M	114.2M
Corporate costs	49.2M	46.4M	47.0M
Employee costs	46.9M	48.9M	50.8M
Electricity	7.6M	8.3M	9.2M
Chemicals	5.3M	5.6M	5.8M
Other cost items	49.9M	56.9M	58.6M
TOTAL	234.2M	259.1M	285.6M

Source: Unitywater Information Requirements Template

In the figure below we show the year on year percentage increase for each of the major cost categories. These percentages are made up from both cost escalations and growth factors. We note that Unitywater's costs relating to bulk water are increasing at a greater rate than those of the other operating costs which explains, in large part, the increase in forecast operating costs.



Source: Unitywater Information Requirements Template

Figure 5-14 Cost drivers for water and wastewater operating costs FY11-12

Bulk water costs

The purchase of bulk water from the SEQ Water Grid Manager comprises a significant portion of Unitywater's operating expenditure for 20010/11 and for the forecast period. From 2008/9 to 2012/13 the expenditure on bulk water storage, treatment and delivery is seen to increase by 140%, or $66.7M. The increase can be attributed to both an increase in demand and increases in unit costs for bulk water.

The prices charged by SEQ water have been set by the Queensland government and are not within the control of Unitywater. As such, our analysis is limited to:

- Determining whether costs are carried through to the consumer in full
- Determining whether budget expenditure is congruent with projected demands and unit prices

An examination of the Unitywater tariff structure confirms that the costs charged by the SEQ water grid manager for bulk water storage, treatment and delivery is consistent with the bulk water rate charged to customers.

In Table 5-21 below we show the calculation of bulk water costs for the geographic areas that make up the Unitywater operating area. Our calculation establishes that demands multiplied by the bulk water unit prices are consistent with the budgeted bulk water expense.

Table 5-21 Unitywater bulk water costs for FY11

Geographic Area	Demand (ML)	Unit Price ($/kL)	Demand x Unit Price ($)	Budgeted Bulk Water Cost ($)
Moreton Bay	25,512	1.652	42.1M	42.1M
Sunshine Coast	31,007	1.070	33.2M	33.2M

Source: Unitywater Information Requirements Template, Queensland Water Commission

Conclusion

Unitywater's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

Employee costs

In its completed information template, Unitywater has identified an increase in labour costs from $4.24M in FY11 to $4.60M in FY13. In nominal terms this represents a 4.3% increase in FY12, and 4.0% increase in FY13.

Unitywater have identified labour costs as:

- Salaries and wages
- Overtime
- Temporary agency staff
- Employee incentive schemes

- Staff training
- Fringe benefit taxes
- Payroll taxes
- Superannuation contributions
- Workers compensation
- Annual, long service and sick leave
- Other labour related costs

We have reviewed these categories and confirm that these are consistent with the Authority's definition of Employee Costs as noted in the Information Requirements for 2010/11.

The increase in employee costs can be attributed to both an increase in employee numbers and cost escalation for labour.

Unitywater have not identified any growth in employee numbers, but have indicated that vacancies have been included when calculating the employee costs.

Cost escalation for labour costs have been identified as 4.0% and 4.0% for FY12 and FY13.

The *Forecast for labour costs growth March 2010 Report* (2010, Access Economics) was commissioned by the Australasian Electricity Regulator (AER) and provides labour indices for the Electricity, Gas, Water and Waste services industry to 2017-18 for New South Wales, Victoria, Queensland, South Australia, the ACT and Australia in aggregate. The forecast specific to Queensland utilities have been used to benchmark labour costs for the Entities, and are presented in Table 5-22 below. The *Labour Price Index for the hourly rates for public servants in the Electricity, Gas, Water and Waste Services* (2010, Australian Bureau of Statistics) are also presented for comparison with historical trends in the industry.

Table 5-22 Comparison of labour cost escalation indices

Year	Unitywater	Australian Energy Regulator	ABS, Labour Price Index
FY09	-	4.9%	4.38%
FY10	-	3.6%	4.40%
FY11	-	3.8%	
FY12	4.0%	4.2%	
FY13	4.0%	3.9%	

Source: Unitywater Response to Interim Price monitoring Information Requirement, Australian Energy Regulator, Australian Bureau of Statistics

As shown in the above table, from our analysis we conclude that Unitywater's labour cost escalations are in line with both the AER forecast indices and the historic trends as derived from the Labour Price Index. We also note that while the Workforce Framework constrains the number of employees within the Entity, no such constraint exists for the labour cost escalation. That is, the Framework does not provide any guaranteed increase in wage, salary or employee benefits. These are to be negotiated through the Employment Bargaining Agreement process.

We have not undertaken an investigation of the reasonableness of the cost categories that encompass employee costs (eg the reasonableness of superannuation contributions, staff training programmes) as part of the assessment of the reasonableness of operating costs.

Conclusion

The labour cost indices and growth factor used by Unitywater to determine employee costs are considered reasonable. We do not propose that a revision to the Information Requirement Template for Employee Costs is required.

Corporate costs

Corporate costs account for 21.0% of overall operating costs in FY11, reducing to 16.5% in FY13.

Advice on corporate overheads was sourced from the Council on the Cost and Quality of Government (CCQG), now known as the Performance Improvement Branch, Department of the Premier and Cabinet, New South Wales government. For agencies of greater than 350 full time equivalent employees CCQC have benchmarked corporate overheads at between 10 and 12% of overall operating costs.

Unitywater submits firstly that there may not be a strict correlation between corporate costs with growth in customers and demand. Secondly, there can be step change increments associated with growth in the business, for example Information and Communication Technology systems that have a capacity constraint.

However, even considering the above comment and acknowledging that there may not be a strict correlation between it is our opinion that corporate costs that account for 20% or more of overall operating costs is at the upper bound of what could be considered reasonable.

Corporate costs include such items as CEO office, personnel cost in the corporate division and support staff, finance, fleet services, marketing, information technology, legal &governance, training, human resources and payroll. These items are consistent with the definition of corporate costs in the SEQ Interim Price Monitoring Information Requirements for 2010/11, July 2010.

As noted in the Unitywater Response to Interim Price monitoring Information requirement:

> *"[The] main contributor to corporate costs is represented by salary and wages expenditure. Although corporate functionality is new, the labour force was partially sourced from transferred employees from councils who are covered by the current workforce arrangements in force until 2013.*

The second largest contribution to corporate costs is represented by once-off project expenditure. Post budget adjustments have been made to the allocation of some once off project costs. This includes approximately $950k transferred to distribution operating costs in relation to planning initiatives. These costs have been attributed to Water and Sewerage activities equally and categorised as corporate costs. Once off project costs include:

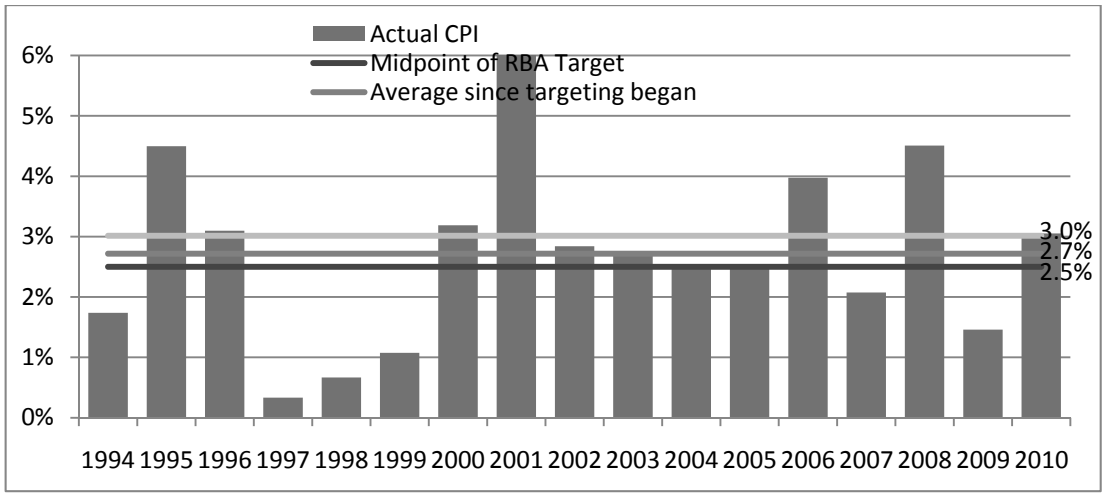
- *Salary equalisation in FY2011*
- *Project "Paramount" which represents costs for tasks required to be completed to align and bring services together*
- *Other distribution operating projects which represent costs associated with development of master plans, network modelling and asset management plans*
- *Standards and specifications development and review*

After 1 July 2011 corporate costs are forecast to decline, primarily because of decreasing once off project costs".

Corporate costs are not driven by growth in customers or demand; hence no growth factors have been applied.

Instead, an annual cost escalation of 2.9%, in line with the consumer price index (CPI) was allowed for. In seeking to understand the overall reasonableness of such a CPI forecast, we have established that since first targeting its current range of 2-3% in 1993, the RBA has historically achieved an *actual* average Year to June CPI of 2.7%[15], and over the most recent five years the actual CPI achieved during this targeting regime has resulted in an average Year to June CPI of 3%, both of which are higher than the expected midpoint of the target range of 2.5%.

This "above the midpoint of the RBA's targeting range" historic CPI result is illustrated through Figure 5-15 below.



[15] ABS 6401.0 Consumer Price Index, Australia TABLES 3 and 4. CPI: Groups, Weighted Average of Eight Capital Cities.

Source: Australian Bureau of Statistics

- **Figure 5-15 RBA CPI targeting results**

Unitywater's adopted general cost escalation of 2.9% is therefore considered reasonable.

The exception is the Service Level Agreements (SLA) with shareholding councils. Unitywater had a policy of moving to self sustainability as soon as possible. Hence costs for SLA are budgeted to reduce from 8.0M in FY11 to 6.6M in FY13.

These services are generally a continuation of pre-existing systems and services to enable an orderly transition to Unitywater: They include: financial accounting, payroll services, development and management charges, call centre, inventory services and depot sites and head office accommodation.

Conclusion

We consider Unitywater's adopted general cost escalation of 2.9% to be a reasonable estimation as such we do not propose that revisions to the Information Requirement Template for Corporate Costs are required.

In future determinations where prudency and efficiency of operation costs are assessed closer we recommend that examination should be given to Unitywater's corporate costs.

Electricity costs

Unitywater uses electricity for their water and wastewater pumping, treatment operations as well as corporate offices.

Electricity purchases for the major sites (eg sewage treatment plants) involve contracts novated from both Moreton Bay and Sunshine Coast Councils. Unitywater advises that these were entered into by an open tender process that was jointly conducted by the Councils in the region for all of their electricity needs.

Electricity for minor sites is a new contract negotiated by Unitywater as an open tender and is expected to realise savings of $1.2M from the previous Council arrangement over the three years of the contract.

We summarise forecast expenditure on electricity in Table 5-23 below.

- **Table 5-23 Unitywater forecast electricity costs**

Year	Water	Wastewater	Total
FY11	1.10M	6.46M	7.6M
FY12	1.21M	7.13M	8.3M
FY13	1.33M	7.87M	9.2M

Source: Unitywater Information Requirements Template

Unitywater have advised us that a cost escalation of 7.9% per annum was allowed for electricity.

For large water utilities such as Unitywater the majority of electricity is consumed by infrastructure that pumps water and wastewater or treatment processes, and will increase or decrease in proportion to the amount of water or wastewater involved. Electricity used for corporate offices or depots would be minor. That is, for the purpose of this evaluation it is reasonable to assume that electricity costs will reflect the increase or decrease in the volume of water and wastewater being pumped or processed.

Table 5-24 compares the growth factors used by Unitywater (nominal increase in electricity expenditure less the cost escalation) with the revised drinking water demand growth rates. Unitywater are not proposing to introduce volumetric charges for wastewater for all applications; subsequently there are no forecasts available. Instead, the growth in wastewater connections is presented for comparison.

Table 5-24 Electricity growth factors

	Unitywater growth rate used for electricity usage	Drinking water demand growth	Wastewater connections growth
FY12	2.5%	1.5%	2.7%
FY13	2.5%	4.2%	2.2%

Source: Unitywater Price Monitoring Information Return, Frontier Economics Assessment of projected demand

We consider the growth rate to be reasonable on the following basis:

- Opportunities exist for efficiency gains in processes due to the amalgamation of the former Moreton Bay and Sunshine Coast Council water businesses.
- The location of growth within particular water zones or wastewater catchments is not known. Growth may be located in areas with less energy intensive transfer and treatment requirements (less pumping stations, more efficient treatment plants), meaning that electricity demand will increase less than overall growth.
- The growth projections used to calculate electricity costs are conservative.

For benchmarking of the price escalation two sets of data have been used. Under the Electricity Act 1994, the rate of change in the Benchmark Retail Cost Index (BRCI) is used to adjust notified electricity prices each year. Under delegated authority from the Minister, Queensland Competition Authority has released a final determination of the BRCI for FY09, FY10 and FY11. The Australian Bureau of Statistics Consumer Price Index for electricity in Brisbane is also used. Refer to Table 5-25.

Table 5-25 Comparison of electricity cost escalation indices

Year	Unitywater	BRCI	ABS CPI for electricity in Brisbane
FY09	-	5.38	11.6
FY10	-	11.82	8.3

Year	Unitywater	BRCI	ABS CPI for electricity in Brisbane
FY11	7.9	13.29	15.5
FY12	7.9		
FY13	7.9		

Source: Unitywater Response to Interim Price Monitoring Information Requirement, Benchmark Retail Cost Index for Electricity, Australian Bureau of Statistics

The mean annual increase in the BRCI and CPI for electricity in the past three years is in the range of 10-12%.

Unitywater have also advised that they sought external advice on future electricity costs, and is based on the proportion of energy purchased through contracts and through the retail market. The cost escalation of 7.9% can therefore be considered reasonable.

Conclusion

The electricity cost indices and growth factor used by Unitywater to determine electricity costs for FY11 are considered reasonable.

Chemicals

Chemicals are used by Unitywater to treat drinking water before deliver delivery to customers, and for wastewater before being discharged into the environment. The need for chemical use is dictated by drinking water standards and compliance with operational licenses for discharge of wastewater.

Unitywater has noted in its submission the supply of chemicals in the register of Third Party Transactions. This contract was inherited from Sunshine Coast and Moreton Bay Councils.

Expenditure on chemicals is forecast to increase from $5.3M in FY11 to $5.8M in FY13. In determining theses forecasts Unitywater have used a cost escalation of 3.5% as determined by the analysis of historical accounts.

For benchmarking of the price escalation two sets of data have been used.

- The producer price index (PPI) for chemical and chemical product manufacture sourced from the Australian bureau of Statistics
- The consumer price index (CPI), weighted average of eight capital cities also produced by the Australian Bureau of Statistics

In Table 5-26 we contrast the cost escalation indices used by Unitywater with PPI and CPI over the financial years 08 to 12.

Table 5-26 Chemical cost escalation indices

Year	Unitywater	PPI	CPI
FY08	-	6.3%	4.5%
FY09	-	12.9%	1.5%
FY10	3.5%	-20.0%	3.1%
FY11	3.5%		
FY12	3.5%		

Source: Unitywater Response to Interim Price Monitoring Information Requirement, Australian Bureau of Statistics

The producer price index is very volatile and hence does not provide a reliable indication of market trends source to forecast chemical costs in the short to medium term. It is also recognised that the index collates data for a wide range of chemical manufacture, not just those specific to the water industry. Hence a direct comparison of Unitywater's proposed cost escalation with the PPI has not been made. However, we have examined the historical costs incurred by the former Council water businesses and concur that a cost escalation 3.5% for chemicals is reasonable.

Transport costs are recognised as a significant cost component for chemicals. This is particularly relevant to Unitywater who are located further from the Brisbane logistics and industrial centres. The amalgamation of the two former Council water businesses increases the purchasing power of Unitywater with potential efficiency gains or reduction in cost through economies of scale through the consolidation of supplier contracts and purchasing power. Indeed, economies of scale are one of the drivers behind the water reforms themselves. We see the streamlining of transportation of chemical as an opportunity for these economies of scale to be realised.

We have insufficient data to conclude that Unitywater's chemical costs will increase above CPI, and hence that 3.5% is a reasonable cost escalation factor. Particularly as no efficiency gains or economies of scale have been considered.

Conclusion

It is our determination that Unitywater's proposed cost escalation index of 3.5% for chemical costs is not reasonable. We have revised the cost escalation to 2.5% for FY12 and FY13. This cost escalation allows for unit prices to increase in line with the upper CPI bound, and 0.5% gain through efficiencies and economies of scale.

6.4.8.3. Impact from revised capital expenditure and growth

Revised capital expenditure

The revised capital expenditure programme will have an impact on the operating expenditure budget. The impact on operating expenditure from each of the capital expenditure classifications are briefly summarised below.

- Growth –capital expenditure associated with a new asset or increasing the capacity of existing assets would expect to increase operating costs due to the addition of new assets and processes.

- Renewal – capital expenditure associated with replacing existing assets and generally maintaining service levels would expect to yield a reduction in operating costs.
- Improvement – capital expenditure associated with improving service levels will generally lead to an increase in operating costs.
- Compliance – capital expenditure associated with meeting legislative obligations will generally require an increase in operating costs.

At this stage we do not have sufficient data to provide the definitive financial impact that the exclusion of capital expenditure projects will have. However, when compared to the overall size of the water and wastewater networks the excluded capital works projects are very small. It is therefore reasonable to assume that the impact to the operating expenditure budget for FY11 to FY13 will be very minor.

As stated in the section on capital expenditure above, the reclassification of some smaller capital expenditure projects as operating expenditure may also be worth investigating in the future.

Revised growth

We have reviewed the *SEQ Interim Price Monitoring: Assessment of Projected Demand* (Frontier Economics, 2010). We note that this is the draft version of this report, and that subsequent changes may be made to the report's recommendations. We have contacted Frontier Economics to determine whether these recommendations are likely to be updated. At the time of writing, Frontier Economics was not able to confirm whether or not their recommendations would change following review of their draft report.

As stated by Frontier Economics "the outcome of demand forecasting is a set of projections upon which capital and operating expenditure requirements are determined".

One of Frontier Economics key recommendations is to increase the predicted properties connected to water and wastewater services in line with PIFU data. These increases are predicted by activity (water, wastewater) geographic area (eg Brisbane, Ipswich) and by type (residential and business). For Unitywater the increase is insignificant – approximately 0-1%.

In our assessment of electricity and chemicals cost we have determined that the revised growth will have negligible impact on volume based operating costs. Any increase in volumetric costs are expected to be offset by variances in CPI and efficiency gains over the next 3 years.

Nonetheless, we have revised the Information Requirement Template for Unitywater for the Bulk Water cost category.

6.4.8.4. Expenditure considered not to be reasonable

From our analysis of Unitywater's operating costs for FY11 to FY13 we have identified that electricity costs and chemical costs are not considered reasonable.

6.4.8.5. Information systems and future returns

Unitywater has noted in their information return that there are ongoing processes to facilitate regulatory preparedness beyond 2013. This process was identified by Unitywater as including:

- Reducing its reliance on Council systems and resources, to the point where it is expected that independent resourcing will be achieved, by and large, for FY2012. Already Unitywater has implemented its own finance and payroll systems.
- Structuring its financial accounts to align with the Authority's data requirements under the interim price monitoring regime.
- Implementing governance processes around the capital expenditure program, including a dedicated sub-committee of the Board to review expenditure and approve variations.
- Developing internal performance indicators and systems of measurement
- Developed detailed cost allocation methodologies
- Identify a pathway to finalise its RAB value based on final, audited financial information from Councils.

Unitywater's progress in achieving the systems required to facilitate a complete, comprehensive and accurate information return is reasonable. During consultation with Unitywater, the Entity noted that finance systems were being implemented in which outputs would align with the Authority's templates. It is clear however, from the review of the data provided by Unitywater, that finalisation of the RAB is a clear priority in providing comprehensive information to the Authority. Secondly, independent financial systems and audited financial statements for both geographic regions will be needed to facilitate future information returns.

6.4.9. Summary of analysis of operational expenditure for Unitywater

The following key conclusions have been made from the analysis of Unitywater's operational expenditure forecast:

- When considered in aggregate, Unitywater' operating costs for water and wastewater services are considered reasonable from FY11 to FY13. However, it is noted that the controllable costs for water services are higher than those of other Australian Water Utilities of similar size.
- Unitywater's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.
- The labour cost indices and growth factor used by Unitywater to determine employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.
- The electricity cost indices and growth factor used by Unitywater to determine electricity costs for FY11 are considered reasonable.
- Unitywater's adopted cost escalation is above both the target range for CPI and average CPI for recent years. Unitywater has not provided sufficient supporting information to support cost escalations for FY12 and FY13 above CPI, and as such, we have deemed this cost as not reasonable.

Our additional findings are as follows:

- The operation expenditure budget process use by Unitywater represents good industry practice. The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs.
- No significant change in the geographic allocation of operating expenditure has been identified.
- Unitywater's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

6.4.10. Proposed revised template

The template was amended to incorporate the conclusions from this analysis in addition to the revised demands as reported by Frontier Consulting.

6.5. Overall summary for capital expenditure and operational expenditure

In summary we have found Unitywater's submission to the Authority to be substantially complying with the guidelines.

Of the 13 projects reviewed by us, the following results were established:

- Five projects are considered prudent and efficient for all financial years
- Five projects are considered prudent and efficient for the initial financial year, with insufficient information provided for following years (although in line with the development stage of the project)
- For two projects no supporting information was provided. Therefore an assessment of these projects cannot be made and they cannot be justified as prudent and efficient.
- One project was identified as not prudent and efficient. The Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML) is identified as no longer being required and it is recommended it is removed from the budget.

We have noted that standards of service and asset design have carried through from the former Council water businesses. Work is underway to provide a consolidated set of service standards across both districts in the near future.

In reviewing operating costs it is also noted that no allowance was made for synergies and economies of scale. As this is a key driver behind water reforms Unitywater will need to clearly identify how these will lead to efficient operations in future price monitoring determinations.

As can be expected with an organisation that have been in existence for a limited time not all policies and systems are currently in place and being implemented. Some projects that have been initiated under previous council arrangements may not have required the same level of scrutiny.

We accept that time constraints and the collation of data from several sources have restricted the level of aggregation in this, the first submission. In future submissions it is expected that improvements to financial models

and cost recording systems, and the adoption on in-house policies and procedures will allow highly aggregated information to be provided and costs assigned to all categories in the Information Requirement Template.

In our assessment Unitywater has identified the current limitations and there are positive indications that adequate systems and policies will be in place to allow informed pricing and reporting for future determinations.

7. Conclusions and Recommendations

The following sections contain the conclusions and recommendations for capital expenditure and operational expenditure for each of the Entities.

7.1. Queensland Urban Utilities

7.1.1. Capital expenditure

The following key conclusions have been made from the analysis of Queensland Urban Utilities' capital expenditure forecast:

- We have identified a representative sample of 15 projects. Of this sample, we have assessed 11 projects against the Authority's definitions of prudency and efficiency, including the standards of work, scope of work and the costs. Of this sample, the capital expenditure for the 2010/11 financial year is prudent and efficient, with the exception of two projects within the Ipswich Distribution Water Main Minor Enhance Program.
- The only projects which are identified as not prudent and efficient are the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn, due to commence in 2011/12 and the Lang Parade Wet Weather Pump Station, due to commence in 2012/13. It is recommended that these projects are removed from the capital works budget.
- For the majority of rolling programs, insufficient information was provided to assess the projects beyond the 2010/11 financial year. Queensland Urban Utilities accepts that for some rolling programs, the exact quantum of required investment in 11/12 onwards is still in the process of being refined. Queensland Urban Utilities has requested that the funding for these three programs be retained to allow the continuation of the alignment and optimisation process currently underway. As Queensland Urban Utilities goes through the 2011/12 budget process, we understand that detailed planning will be undertaken to justify the proposed levels of investment within the rolling programs and that level of funding will be sought.
- We believe that the level of information provided for this review is in line with the context of the newly formed Entity, whereby Queensland Urban Utilities is undertaking a process of aligning the established prudent and efficient policies/procedures/programs from the larger amalgamated service areas across the organisation. In future, it is recommended that further information is provided to identify the process by which projects are selected and prioritised and to identify how the quantum of work was identified. As such, we recommend that these programs are further reviewed before approval.

Our other findings are as follows:

- Queensland Urban Utilities has provided a submission which complies with the Authority's guidelines. The Information Required Template has been completed for the key activities (water and wastewater) and no costs are forecasted for billing and support services.
- In undertaking this assessment we noted a small number of non-material errors within the Information Required Template regarding the allocation of costs to sub categories.
- A project list was provided (Commissioning Model.xls). This is a highly useful and comprehensive tool which links each project to the activity (water, wastewater) geographical area, project drivers, asset class and timing

of expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories.

- Currently Queensland Urban Utilities has several varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand work is underway to create a consolidated version of these standards.
- In respect of the Brisbane and Ipswich districts, Queensland Urban Utilities has well defined policies and procedures which are in agreement with good industry practice. We understand that this may not yet be the case for other geographic areas; however we understand work is underway to review these policies and procedures.
- From the documents reviewed for the representative sample, we conclude that documentation is good for the large single projects (eg master plans, feasibility studies business cases, etc); however documentation is less comprehensive for rolling programs (such as meter replacements). We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

7.1.2. Operating expenditure

The following key conclusions have been made from the analysis of Queensland Urban Utilities' operational expenditure forecast:

- When considered in aggregate, Queensland Urban Utilities' operating costs for water and wastewater services are considered reasonable from FY11 to FY13. The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs. No significant change in the geographic allocation of operating expenditure was identified.
- The labour cost indices and growth factor used by Queensland Urban Utilities to calculate employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.
- Queensland Urban Utilities' adopted general cost escalation of 2.5% for corporate costs is seen to be lower than the average actual CPI over the last five years, but nonetheless a reasonable estimation. No revisions to the Information Requirement Template for Corporate Costs are proposed.
- The electricity cost indices and growth factor used by Queensland Urban Utilities to calculate electricity costs for FY11 are not considered reasonable. Cost escalation estimated for FY12 and FY13 are below market trends and forecast expenditure is revised to include a cost escalation of 7.6%.
- Queensland Urban Utilities adopted cost escalation of 2.5% for chemicals is reasonable.

Our additional findings are as follows:

- The operational expenditure budget process used by Queensland Urban Utilities represents good industry practice.

- The lack of highly disaggregated data available from Councils has limited that degree of comparison that can be done with historical expenditure. Many costs, such as corporate costs and retail costs, were previously aggregated under generalised Council accounts. The analysis undertaken has largely been on whether appropriate growth factors and cost escalation indices are applied. Queensland Urban Utilities' operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

7.2. Allconnex Water

7.2.1. Capital expenditure

The following key conclusions have been made from the analysis of Allconnex Water's capital expenditure forecast:

- We have identified a representative sample of 13 projects. Of this sample, 11 projects were assessed by us against the Authority's definitions of prudency and efficiency, including the standards of work, scope of work and the costs. Based on our review, the capital expenditure for these projects for the 2010/11 financial year is prudent and efficient.
- For the following four projects continuing in 2011/12 and 2012/13, insufficient information was provided to assess the prudency and efficiency of the projects.
  - Merrimac West Stage 2 WW Network Augmentation
  - Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
  - Treatment Plant Future Misc Cap items Estimate
  - Pump Station No. 61
- We believe that the level of information provided for this review is consistent with the stage of development for each project. In future, it is recommended that further information is provided regarding the scope of works required, and to identify the process by which projects are selected and prioritised. As such, we recommend that these programs are further reviewed before approval.
- From our review of Allconnex Water's processes and procedure, we conclude that they represent many aspects of good industry practice. However, it is noted that the policies and procedures are currently different within each district. We note that Allconnex Water has identified that in future a coordinated approach will be taken to the planning issues. We support this statement and recommends that Allconnex Water develops a clear and consistent capital planning and prioritisation process for all districts. This should incorporate the successful elements of the policies and procedures from each district.

Our other findings are as follows:

- Allconnex Water has provided a submission which complies with the Authority's guidelines excepted as noted in the following. The Information Required Template has been completed for the key activities (water and wastewater); however disaggregation of data into all of the potential sub categories has not been carried out,

particularly for corporate costs. In addition there appear to be a few errors within this spreadsheet regarding the misallocation of costs to sub categories.

- A project list was provided. This project list identifies each project, the activity and the proposed timing of expenditure (ie costs per financial year). However limited information is provided on a project by project basis, in terms of cost drivers, scope or standard of works. No linkages have been provided to the underlying cost components such as unit rates, on-costs and contingencies and any other supporting materials such as consultant reports. Based on discussions with Allconnex Water, We understand that a more complete project list is available which includes project descriptions and cost drivers. This was not reviewed during our assessment.
- We would stress that these relatively minor issues should be considered within the overall context of the water reforms, where Allconnex Water has only been in existence for two months and that the list of projects and supporting information was produced from information from three separate councils.
- Currently Allconnex Water has several varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand a review of the standards of each district is currently taking place which will ensure that there is consistency across the business.

7.2.2. Operating expenditure

The following key conclusions have been made from the analysis of Allconnex Water's operational expenditure forecast:

- When considered in aggregate, Allconnex Water's operating costs for water and wastewater services are considered reasonable from FY11 to FY13. However, it is noted that both the operational cost for wastewater and the controllable costs for water services are higher than those of other Australian Water Utilities of similar size. The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs. No significant change in the geographic allocation of operating expenditure was identified.
- The labour cost indices used by Allconnex Water to calculate employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.
- The electricity cost indices and growth factors used by Allconnex Water to electricity costs are considered reasonable. No revisions to the Information Requirement Template for Electricity Costs are proposed.
- We consider Allconnex Water's adopted cost escalation for chemical costs is not reasonable. We have revised the cost escalation index for chemical costs to 2.5% to allow for gains in efficiencies and economies of scale.

Our additional findings are as follows:

- The operation expenditure budget process use by Allconnex Water represents good industry practice.
- Allconnex Water's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

- Allconnex Water's adopted general cost escalation of 3.0% for corporate costs is a reasonable estimation. No revisions to the Information Requirement Template for Corporate Costs are proposed.

7.3. Unitywater

7.3.1. Capital expenditure

The following key conclusions have been made from the analysis of Unitywater's capital expenditure forecast:

- Of the thirteen projects reviewed by us, the following results were established:
  - Five projects are considered prudent and efficient for all financial years.
  - Five projects are considered prudent and efficient for the initial financial year, with insufficient information provided for following years (although in line with the development stage of the project).
  - For two projects no supporting information was provided. Therefore an assessment of these projects cannot be made and they cannot be justified as prudent and efficient.
  - One project was identified as not prudent and efficient. The Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML) is identified as no longer being required and it is recommended it is removed from the budget.
- From our analysis of the information provided, we conclude that Unitywater has established well defined policies and procedures which are in agreement with good industry practice. Unitywater is currently establishing further governance structures to underpin the process of approving capital expenditure.

Our additional findings are as follows:

- Unitywater has provided a submission which substantially complies with the Authority's guidelines. The Information Required Template was completed for the key categories.
- Unitywater has identified that there have been problems with the data regarding the assigning of the correct classification of assets and cost drivers within the historical capital expenditure. The document mentions that these issues will be rectified when the actual audited results are received. We recommended that the capital expenditure allocated to sub categories within the Information Required Template is reviewed, and if required, updated.
- In addition, no establishment costs are included in the historical capital expenditure. We recommend that the templates are updated once information is available on the council's audited accounts and establishment costs.
- A project list was provided for future capital projects. This is a highly useful and comprehensive tool which links each project to the activity (water, wastewater,) geographical area, project drivers, asset class and timing of expenditure. This single spreadsheet allows for a robust disaggregation of project costs into the Authority's selected categories. The use of Unitywater's spreadsheets allows for a highly disaggregated system of cost recording and continued use of this model (or similar versions of this model) is recommended

- Currently Unitywater is reviewing the varying standards of service for customers and asset design as is expected of a newly formed Entity. We understand that work is underway to create a consolidated version of these standards. We recommend that this process is finalised and that a consistent set of standards is applied across both districts.
- We note that documentation is substantially complete for most projects we have reviewed. We note that some of the projects may have been initiated under the previous council arrangements, and may not have required the same level of documentation at the time.

7.3.2. Operating expenditure

The following key conclusions have been made from the analysis of Unitywater's operational expenditure forecast:

- When considered in aggregate, Unitywater' operating costs for water and wastewater services are considered reasonable from FY11 to FY13. However, it is noted that the controllable costs for water services are higher than those of other Australian Water Utilities of similar size.
- Unitywater's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.
- The labour cost indices and growth factor used by Unitywater to determine employee costs are considered reasonable. No revisions to the Information Requirement Template for Employee Costs are proposed.
- The electricity cost indices and growth factor used by Unitywater to determine electricity costs for FY11 are considered reasonable.
- Unitywater's adopted cost escalation is above both the target range for CPI and average CPI for recent years. Unitywater has not provided sufficient supporting information to support cost escalations for FY12 and FY13 above CPI, and as such, we have deemed this cost as not reasonable.

Our additional findings are as follows:

- The operation expenditure budget process use by Unitywater represents good industry practice. The trend for the interim monitoring period is for the proportion of operating expenditure spent on water services to increase. This is driven by the significant increase in bulk water costs.
- No significant change in the geographic allocation of operating expenditure was identified.
- Unitywater's operating budget has demonstrated that prices charged by the SEQ Water Grid Manager for bulk water storage, treatment and delivery are passed through to customers in full.

8. References

8.1. Queensland Competition Authority

SEQ Interim Price Monitoring Framework, April 2010, Queensland Competition Authority, Brisbane, Queensland.

SEQ Interim Price Monitoring Information Requirements for 2010/11, July 2010, Queensland Competition Authority, Brisbane, Queensland.

SEQ Interim Price Monitoring: Guideline for Templates for 2010/11, Version 1.0, May 2010, Queensland Competition Authority, Brisbane, Queensland.

8.2. Queensland Urban Utilities

Queensland Urban Utilities Price Monitoring Information Return, August 2010, Queensland Urban Utilities, Brisbane, Queensland.

8.3. Allconnex Water

Allconnex Water Price Monitoring Submission 2010-2011: submission to the Queensland Competition Authority Review of Prices for Allconnex Water, version 3, 2010, Allconnex Water.

Allconnex Water 2010-2011 Submission Supporting Data, version 1, 2010, Allconnex Water.

8.4. Unitywater

Response to Interim Price Monitoring Information requirements: Water and Sewerage Treatment, distribution and Retail Activities, August 2010, Unitywater, Caboolture, Queensland.

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6345.0 *Labour Price Index; hourly rates; public sector; Electricity, gas, water and waste services,* 2010, Australian Bureau of Statistics.

6410.0 TABLES 3 and 4 *Consumer Price Index; Groups; weighted average of Eight Capital Cities,* 2010, Australian Bureau of Statistics.

Final Decision: Benchmark Retail Cost Index for Electricity: 2010-11, May 2010, Queensland Competition Authority, Brisbane, Queensland.

6401.0 TABLE 13 *Consumer Price Index; Index Number; Electricity; Brisbane,* 2010, Australian Bureau of Statistics.

6427.0 TABLES 12 and 13 *Producer Price Index; Index Number; Base Chemical and Chemical Products,* 2010, Australian Bureau of Statistics.

Appendix A Queensland Urban Utility detailed assessments

Appendix A1 Information register

Project: **QE09780**
SEQ Water and Wastewater Price Monitoring

Information Register

Reference	Date Rec'd	Rec'd from	Title	Version	Key, Confidential or Supporting	Format	Storage Location (Project file)	Description
						Word, PDF, Excel		
QUU								
3.02	1/09/2010	QUU	QCA Information Requirements Templates XLS		Key	SKM	I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100901\For Publication	
3.03	1/09/2010	QUU	QUU Price Monitoring Info Return.pdf	31/08/2010	Key	PDF	I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100901\For Publication	
3.04	1/09/2010	QUU	QCA Information Requirements Templates XLS		Key	Excel	I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100901\For Publication	
3.05	1/09/2010	QUU	QUU Price Monitoring Info Return		Key	PDF	I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100901\For Publication	
3.28	10/09/2010	QUU	Copy of Data Dictionary xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100910	Provides descriptions of the Accounting labels and codes used in the financial documents and the template.
3.29	14/09/2010	QUU via QCA	Capital Project Summaries for all Council areas		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100914	These sheet provide summaries for Capital Projects within all Lockyer, Scenic Rom, Somerset, Brisbane and Ipswich
3 30 - RFI 15	20/09/2010	QUU	Bulimba Creek Trunk Sewer		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 15A	20/09/2010	QUU	20100623_MPE.ppt		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 15B	20/09/2010	QUU	Project Mandate BCTS Stage 1 Rev 1.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 15C	20/09/2010	QUU	Signed Strategic Report 2008-09 BCTS Final pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 15D	20/09/2010	QUU	WD100143 Bulimba Pre Market Business Case V3.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 15E	20/09/2010	QUU	WWP147_09_FR.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 31 - RFI 16	20/09/2010	QUU	Burst Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A	20/09/2010	QUU	Brisbane Burst Mains Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A1	20/09/2010	QUU	Business Case & Program List		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A1A	20/09/2010	QUU	RW4_1011_BC.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A1B	20/09/2010	QUU	RW4_1011_PLAdd.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A2	20/09/2010	QUU	Burst Mains Process		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A2A	20/09/2010	QUU	checkofnewprioritisationmatrix xls		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A2B	20/09/2010	QUU	How to do a Burst main Renewal CURRENT.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A2C	20/09/2010	QUU	WCM020 - Water Cycle Management.xls		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A3	20/09/2010	QUU	Submissions (Sample)		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A3A	20/09/2010	QUU	Approved_BuzacottSt_CarinaHeights.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A4	20/09/2010	QUU	Schedules of Rates		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A4A	20/09/2010	QUU	BMR General Rates.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A4B	20/09/2010	QUU	Comdain Revised Rates 2010.xls		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A4C	20/09/2010	QUU	KW Schedule B v7 rec 301107.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 16A4D	20/09/2010	QUU	schedule B Diona M rec 121207 V6.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 32 - RFI 17	20/09/2010	QUU	Lang Parade Wet Weather PS		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 17A	20/09/2010	QUU	Document Scrap 'Incoming sludge_...'		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 17B	20/09/2010	QUU	S1 North MP 2002.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 17C	20/09/2010	QUU	S1_2006.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 17D	20/09/2010	QUU	WWP104 Lang Pde WW PS pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 33 RFI 18	20/09/2010	QUU	Distribution Water Main ME Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18A	20/09/2010	QUU	Report for the Borallon Zone Water Supply Pumping System - Kuhan		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18A1	20/09/2010	QUU	Borallon_Pumps - Final Report.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18B	20/09/2010	QUU	WNI00037 - Borallon Altitude Valve		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18B1	20/09/2010	QUU	Memo WN 00037 Removal from CWP.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18C	20/09/2010	QUU	WNI00266 - 288 Water main Layard St & Woogaroo St Cnr Goodna		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18C1	20/09/2010	QUU	Layout 1.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18C2	20/09/2010	QUU	WNI00266 - 288 Master Plan Drawing 1.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18D	20/09/2010	QUU	MCPS Water Main Extension, Voyager Dr, Karalee - Revision 1 pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18E	20/09/2010	QUU	RW_1_MinorEnhance_1011_PLAdd.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18F	20/09/2010	QUU	WNE00029 - WN 00009.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18G	20/09/2010	QUU	WNI00260 MCPS - Water main from Emily Crt to Karrabin Rosewood Rd Walloon pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 18H	20/09/2010	QUU	WNI00263 - MCPS Water main from Berlin St, Rosewood VO.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 34 RFI 19	20/09/2010	QUU	Sewerage Rising Mains Renewals Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	

RFI 19A	20/09/2010	QUU	SRP00201 Rising Main Goodna STP Lower Cross St 200m of 600mm		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 19A1	20/09/2010	QUU	Feasibility Study_Replacing 600mm Rising Main_SP33_ pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 19A2	20/09/2010	QUU	SPS Feasibility Final Report SP33 & SP34 Rev1 - Maunsell 10 Sep 2009 pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 19B	20/09/2010	QUU	WWP9_I_1011_PL pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 19C	20/09/2010	QUU	WWP9_I_SRP00026_10_MCPS.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 35 RFI 20	20/09/2010	QUU	Lockyer Valley Retic Mains Improvement Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 20A	20/09/2010	QUU	WWP3_L_1011_PL.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 36 RFI 21	20/09/2010	QUU	Lockyer Valley Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 21A	20/09/2010	QUU	WWP10_L_1011_PL.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 37 RFI 23	20/09/2010	QUU	Upgrade Walker Drive Reservoir Kooralbyn		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 23A	20/09/2010	QUU	Beaudesert Model Build Report February 2008.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 38 RFI 24	20/09/2010	QUU	Brookes Drive Reservoir (Kooralbyn) Implementation		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 24A	20/09/2010	QUU	Beaudesert Model Build Report February 2008.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 24B	20/09/2010	QUU	Brookes Drive Reservoir Implementation MCPS - Final.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3 39 RFI 25	20/09/2010	QUU	Wastewater Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 25A	20/09/2010	QUU	WWP49_S_1011_PL pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3.40 RFI 26	20/09/2010	QUU	Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
RFI 26A	20/09/2010	QUU	Water Retic Mains Renewal Program.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100920	
3.41 RFI 81	27/09/2010	QUU	Lockyer Valley Retic Mains Improvement Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 81A	27/09/2010	QUU	RW_L_DW2_1011_PL pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.42 RFI 82	27/09/2010	QUU	Lockyer Valley Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 82A	27/09/2010	QUU	RW_L_ DW1_1011_PL.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.43 RFI 83	27/09/2010	QUU	Somerset Wastewater Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 83A	27/09/2010	QUU	20100924 RFI 083 response.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 83B	27/09/2010	QUU	Somerset 2007-08 sewer complaints.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 83C	27/09/2010	QUU	Somerset 2008-09 sewer complaints.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 83D	27/09/2010	QUU	Somerset 2009-10 sewer complaints.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.44 RFI 84	27/09/2010	QUU	Somerset Water Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 84A	27/09/2010	QUU	2007-2009 Somerset water burst data .pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 84B	27/09/2010	QUU	20100924 RFI 084 response.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.45 RFI 85	27/09/2010	QUU	Ipswich Distribution Water Main Minor Enhance Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85A	27/09/2010	QUU	Borallon WSZ Planning Memo doc		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85B	27/09/2010	QUU	Borallon WSZ Planning Memo pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85C	27/09/2010	QUU	img-924112912-0001.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85D	27/09/2010	QUU	SKM Review - WNI00049.doc		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85E	27/09/2010	QUU	SKM Review - WNI00049.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85F	27/09/2010	QUU	Memo WN 00266 and WNI00288 Removal from CWP.doc		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85G	27/09/2010	QUU	Memo WN 00266 and WNI00288 Removal from CWP.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85H	27/09/2010	QUU	Water Main Layout.bmp		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 85I	27/09/2010	QUU	Water Main Layout.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.46 RFI 86	27/09/2010	QUU	Ipswich Sewerage Rising Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 86A	27/09/2010	QUU	20100920 Email RM Lower Cross St upgrade advise.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 86B	27/09/2010	QUU	20100920 RM Lower Cross St upsizing reqirements Map pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 86C	27/09/2010	QUU	20100924 RFI 086 response.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 86D	27/09/2010	QUU	GHD Report Appendix C Hydraulic Analysis RM Lower cross St.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.47 RFI 87	27/09/2010	QUU	Brisbane Burst Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 87A	27/09/2010	QUU	20100924 RFI 087 response.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 87B	27/09/2010	QUU	Brisbane Water main burst history.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
RFI 87C	27/09/2010	QUU	Signed Response Form RFI 87.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100927	
3.48 RFI 99	30/09/2010	QUU	Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	
RFI 99A	30/09/2010	QUU	Email Reponse.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	
RFI 99B	30/09/2010	QUU	Copy of Previously Sent Email.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	
3.49 RFI 102	30/09/2010	QUU	Lockyer Valley Retic Mains Improvement Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	
RFI 102A	30/09/2010	QUU	20100929 RFI 102 response.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	
3.50 RFI 103	30/09/2010	QUU	Lockyer Valley Retic Mains Renewal Program		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	
RFI 103A	30/09/2010	QUU	20100924 RFI 103 response.pdf		Supp		I:\QENV2\Projects\QE09780\Incoming Information\QUU\20100930	

Appendix A2 Adequacy of information for Capital Expenditure

Entity: Queensland Urban Utilities (QUU)

Assets:

- Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street
- Brisbane Burst Mains Renewal Program
- Lang Parade Wet Weather Pump Station
- Ipswich Distribution Water Main Minor Enhance Program
- Ipswich Sewerage Rising Mains Renewal Program
- Lockyer Valley Water Retic Mains Improvement Program
- Lockyer Valley Water Retic Mains Renewal Program
- Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn
- Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation
- Somerset Wastewater Retic Mains Renewal Program
- Somerset Water Retic Mains Renewal Program

Asset description: Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street	RFI 15	Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street Major Project Executive 20100623_MPE.ppt	June 2010	PPP	Not covered	Recommendation 5 states that: Project areas around the program, environmental, cost estimates, communications and stakeholder management need to be finalised.	Not covered	The Major Project Executive recommends that based on the findings of the Gate 2 Review, t is recommended that Major Projects Executive approve the commencement of market engagement for the Bulimba Creek Trunk Sewer Project (Stage 1).
		Bulimba Creek Trunk Sewer Upgrade – WD100143 Bulimba Pre Market Business Case V3.pdf	21 May 2010	Rev3, PDF	The primary objectives of this project are to: • provide a trunk sewer in the S3 catchment that will ensure Council fulfils its General Environmental Duty and meets statutory obligations including the City of Brisbane Act 1924, the Metropolitan Water, Safety and Reliability Act 2008 and the Environmental Protection Act 1994. • facilitate urban growth initiatives that are generating rapid population growth in the S3 region including the proposed Rochedale development.	Broader Project The proposed contract represents Stage 1 of a 2 stage project. Stage 1: Padstow Road, Eight Mile Plains to Coora Street, Wishart (4.5 km); and Stage 2: From Wecker Road, Mansfield to Old Cleveland Road Carindale, (this is currently in feasibility assessment stage). The existing trunk sewer length for Stage 2 is 5.5 kilometres. Composition of Stage 1 Stage 1 is comprised of the following two Parts: Stage 1 Part A: Construction of a new trunk sewer; and Stage 1 Part B: Relining of the existing trunk sewer (excluded from the scope of this Project. Stage 1 Part A: Construction of a new trunk sewer The proposed contract involves construction of a new trunk sewer at Bulimba Creek including:	Identified in Commissioning Model.xls as 87% Growth, 13% Renewals. Population projections for the S3 Sewerage Catchment upstream from Coora Street are predicted to increase from approximately 97,000 Equivalent Persons in 2011 to 111,000 Equivalent Persons in 2016 and 134,000 Equivalent Persons for the Ultimate Planning Horizon. The projected growth places additional stress on the already overloaded system. (Page 7) Overflows periodically occur within the S3 Sewerage Catchment upstream from Coora Street when pipe flows are significantly less than the design Peak Wet Weather Flow for the 2011 Planning Horizon. This presents the risk that continuing and increasing overflows lead to breaches of the Environmental Protection Act 1994 and departures from Council/QUU's Department of	Sets out the preferred procurement strategy. This report identifies previous reports such as: Master Planning Studies 1999, 2000 and 2002. These studies determined that a staged sequence of augmentations was required to address capacity issues and cater for future growth within the S3 catchment. Signed Strategic Report (see below) Feasibility Study (see below)

Entity: Queensland Urban Utilities (QUU)

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
						• construction of the 800 mm to 1200 mm diameter trunk sewer to Council's designs; • supply of all items including pipes, penstocks and ventilation components; • 23 additional branch sewer connections to the trunk sewer; • construction of seven vent pairs and installation of three penstocks; • two Closed Circuit Television inspections; • commissioning of the augmented sewer system; and • Provisional allowance for a screened emergency overflow Practical Completion is expected to be 18 months after the commencement date which includes a delivery lead time of 12-16 weeks for supply and delivery of pipe.	Environment and Resource Management licence requirements. There is a requirement for immediate action to address these deficiencies and to cater for future growth. (Page 7)	
		Brisbane Bulimba Creek Trunk Sewer Upgrade - Padstow Road to Coora Street Feasibility Report WWP147_09_FR.pdf	March 2009	Rev B, PDF	To provide sufficient capacity in the sewerage system to meet: • Council's obligations under its General Environmental Duty (EPA), • BCC's Standards of Service and • Water Distribution's Design Standards • State Government Design Guidelines (Table 3.4 – Objectives, Measurement for Success & Benefits)	The Feasibility Study recommended that the capacity of the Bulimba Creek trunk sewer from Padstow Road to Coora Street is augmented by the construction of a new trunk sewer main approximately 4.5 km long to run approximately parallel to the existing trunk sewer. $58.77 million +20%/-15% based on 800mm, 1000mm and 1200mm diameter sewers with various connector pipes.		The Stage 1 Feasibility Report confirms the deficiencies in the Bulimba Creek Trunk Sewer from Padstow Road to Coora Street.
		Project Mandate BCTS Stage 1 Rev 1.pdf	March 2009	Rev 3, PDF		$58.77 million +20%/-15% based on 800mm, 1000mm and 1200mm diameter sewers with various connector pipes. Detailed cost estimate Appendix D. Project contingencies and overheads approx 55% (pg 38). Estimate base date October 2008. Options assessment considered a range of options including an MCA.		
		Brisbane Bulimba Creek Trunk Sewer Upgrade – Padstow Road to Gibson Island	March 2009	Rev 2, PDF				Reviewed the optimum upgrade staging program for

Entity: Queensland Urban Utilities (QUU)

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
		Signed Strategic Report 2008-09 BCTS Final.pdf						the Bulimba Creek Trunk Sewer. The Strategic Study dentified upgrade works required for most of the Trunk Sewer between Padstow Road (Macgregor) and the Gibson Island Water Reclamation Plant. A Staging Program was recommended for the identified trunk sewer segments requiring upgrade works. Stage 1 from Padstow Road to Coora Street was identified as providing the greatest initial benefit.

Asset description: Brisbane Burst Mains Renewal Program

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Brisbane Burst Mains Renewal Program	RFI 16	RW4_1011_BC	20/9/2010	PDF	The drivers for the program are based on limiting the number of interruptions for individual customers. A water main is identified for inclusion in this renewals program when it has caused four or more interruptions to a customer in a rolling twelve month period. QUU currently uses the CSIRO developed PARMS Priority water main replacement prioritisation software to prioritise the mains identified for inclusion in this program. This aims at ensuring that mains within cohort groups with expected high future burst rates are prioritised at the top of the list for replacement. Performance in terms of bursts per 100 kilometres is	Value of the capital expenditure for 2010/11 is provided as list with cost estimate for each scope element (mains for replacement). Cost estimate based on schedule of rates from the successful tenderer. Rates were provided as supporting documentation. An allowance is included for “emergent” work, that is which will meet the criteria for inclusion in the program but was not identified at the time of compiling the budget documentation in December 2009. Increased funding indicated as being	Renewals – The work involves replacement of existing assets to ensure desired standards of service are achieved.	QUU indicate that adjustments for carryover work will be reflected on update of 2009-10 actuals.
		RW4_1011_PLAdd	20/9/2010	PDF				
		Checkofnewprioritisationmatrix	20/9/2010	XLS				
		How to do a Burst Main Renewal CURRENT	20/9/2010	PDF				
		WCM020 - Water Cycle Managment	20/9/2010	XLS				
		Approved_BuzacottSt_CarinaHeights	20/9/2010	PDF				
		BMR General Rates	20/9/2010	PDF				
		Comdain Revised Rates 2010	20/9/2010	XLS				
		KW schedule B v7 rec 301107	20/9/2010	PDF				
		schedule B Diona M rec 121207 V6	20/9/2010	PDF				
	RFI 87	20100924 RFI 087 response	27/9/2010	PDF				
		Brisbane Water main burst history	27/9/2010	PDF				

Entity: Queensland Urban Utilities (QUU)

					published annually in the National Performance Reporting Framework. Failure rate in “Bursts per 100km” ranges from 27.8 in 08/09 up to 49.7 in 06/07. Process includes NPV analysis to compare doing nothing vs replacement	required in 2011/2012 and 2012/2013 is based on “historical work in hand levels and ensuring that the work at hand is minimised”.		

Asset description: Lang Parade Wet Weather Pump Station

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Brisbane Lang Parade Wet Weather Pump Station	RFI 17	S1 North Sewerage Catchment Master Planning Study (Final Report)	June 2002	Final, PDF	Yes. The Master Plan document has a few standards of service (performance requirements) relating to pump stations.	Clarification and supporting information required on the scope of works, costs and works program. The QUU Capex list provides information on the estimated cost per FY. However, these details are not found in the supporting documents provided by QUU.	Yes. Growth – MP (2002) doc identified this project due to a need for capacity upgrade - to divert the 150 L/s wet weather flow to avoid sewer surcharge scenarios.	Noted that the documents (master plan study) submitted are not specifically addressing the scope of works for this project. Instead, the documents refer to all capital works for S1 Sewerage Catchment, where assets include trunk sewers and pump stations.
		S1 Sewerage Catchment Master Planning Investigation – Review	2006	Version 1, PDF				
		Pre-TOR / Feasibility Assessment into WWP104 Land PDE Wet Weather Pump Station (S1N – Misc) WWP48 Auchenflower Branch Sewer (S1N-GM13)	June 2005	Version 1, PDF				

Asset description: Somerset Wastewater Retic Mains Renewal Program

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Somerset Wastewater Retic Mains Renewal Program	RFI 25	WWP49_S_1011_PL	2010	PDF	Potential work identified through customer complaints. Condition assessment and NPV analysis is undertaken to justify works. Reactive programme in response to complaints.	Scope for some of the proposed works (locations, length and diameter of mains) for 2010/11 provided, with a cost estimate based on rates. Their method for estimating rates was provided.	Renewal- The work involves condition assessment and rehabilitation of existing assets to ensure desired standards of service are achieved.	
	RFI 83	20100924 RFI 083 response	2010	PDF				

Entity: Queensland Urban Utilities (QUU)

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
		Somerset 2007-08 sewer complaints	2010	PDF		Scope for “emergent work” not provided, but cost of $120k included. No detail provided on the analysis to estimate this value. No detail provided on scope of work for 2011/12 or 2012/13. No detail provided on the analysis to estimate these values. It is a “Rolling program” and QUU delays or brings forward work to match budget.		
		Somerset 2008-09 sewer complaints	2010	PDF				
		Somerset 2009-10 sewer complaints	2010	PDF				

Asset description: Somerset Water Retic Mains Renewal Program

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Somerset Water Retic Mains Renewal Program	RFI 26	Water Retic Mains Renewal Program	2010	PDF	The project driver is the management of customer complaints related to deficient service provision i.e. reticulation water mains which have experienced repeated leaks or bursts. The current projects identified in the 2010/11, 2011/2012 and 2012/2013 programs were selected by reviewing and analysing the customer complaints register. This register was provided.	Scope for some of the proposed works (locations, length and diameter of mains) for 2010/11 provided, with a cost estimate based on rates. Their method for estimating rates was provided. Scope for “emergent work” not provided, but cost of $15k included. No detail provided on the analysis to estimate this value. Expecting 50% increase in budget for 2011/12 and 2012/13. No detail provided on scope of work for 2011/12	Renewals – The work involves replacement of existing assets to ensure desired standards of service are achieved.	
	RFI 84	20100924 RFI 084 response	2010	PDF				
		2007-2009 Somerset water burst data	2010	PDF				

						or 2012/13. No detail provided on the analysis to estimate these values. It is a “Rolling program” and QUU delays or brings forward work to match budget.		

Asset description: Lockyer Valley Water Retic Mains Improvement Program

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Lockyer Valley Water Retic Mains Improvement Program	RFI 20	WWP3_L_1011_PL	2010	PDF	Compliance with Asset Management Plans	Scope of works are summarised in the program list and response documents Cost is summarised in the program list document	This project is identified as requiring augmentation in order to meet growth and improvements	
	RFI 81	RW_L_DW2_1011_PL	2010	PDF				
	RFI 102	20100929 RFI 102 response	2010	PDF				

Asset description: Lockyer Valley Water Retic Mains Renewal Program

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Lockyer Valley Water Retic Mains Renewal Program	RFI 21	WWP10_L_1011_PL	2010	PDF	Compliance with Asset Management Plans	Scope of works are summarised in the program list and response documents Cost is summarised in the program list document	Renewal - the project replaces existing watermains to ensure desired standards of service are maintained	
	RFI 82	RW_L_ DW1_1011_PL	2010	PDF				
	RFI 103	20100924 RFI 103 response	2010	PDF				

Asset description: Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn

Entity: Queensland Urban Utilities (QUU)

		Information Received			Adequacy of Information Provided			
Project	RFI No	Name of File	Date	Rev and Type	Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn	RFI 23	Beaudesert Model Build Report February 2008	2010	PDF	Standards of service are detailed in sections 2 & 3 of the submitted document.	Scope is to upgrade Walker Drive Reservoir to 8ML	This project is identified as requiring augmentation in order to meet growth.	Noted that the standards of service are more like design criteria.
	RFI 99		2010	PDF				
			2010	PDF				

Asset description: Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation

		Information Received			Adequacy of Information Provided			
Project	RFI No	Name of File	Date	Rev and Type	Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation	RFI 24	Beaudesert Model Build Report February 2008	2010	PDF	Standards of service are detailed in sections 2 & 3 of the Beaudesert Model Build Report February 2008.	Scope of works and cost are detailed in attachment D of the MCPS. Various quotations are also included in attachment D of the MCPS.	Renewal - the project replaces existing reservoir to improve the water supply service to all of Brookes Drive	Noted that the standards of service are more like design criteria.
		Brookes Drive Reservoir Implementation MCPS - Final	2010	PDF				
	RFI 109		2010	PDF				

Asset description: Somerset Wastewater Retic Mains Renewal Program

		Information Received			Adequacy of Information Provided			
Project	RFI No	Name of File	Date	Rev and Type	Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
Somerset Wastewater Retic Mains Renewal Program	RFI 25	WWP49_S_1011_PL	2010	PDF	Potential work identified through customer complaints. Condition assessment and NPV analysis is undertaken to justify works. Reactive programme in response to complaints.	Scope for some of the proposed works (locations, length and diameter of mains) for 2010/11 provided, with a cost estimate based on rates. Their method for estimating rates was provided. Scope for “emergent work” not provided, but cost of $120k	Renewal- The work involves condition assessment and rehabilitation of existing assets to ensure desired standards of service are achieved.	
	RFI 83	20100924 RFI 083 response	2010	PDF				
		Somerset 2007-08 sewer complaints	2010	PDF				

		Somerset 2008-09 sewer complaints	2010	PDF		included. No detail provided on the analysis to estimate this value. No detail provided on scope of work for 2011/12 or 2012/13. No detail provided on the analysis to estimate these values. It is a "Rolling program" and QUU delays or brings forward work to match budget.		
		Somerset 2009-10 sewer complaints	2010	PDF				

Asset description: Somerset Water Retic Mains Renewal Program

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Somerset Water Retic Mains Renewal Program	RFI 26	Water Retic Mains Renewal Program	2010	PDF	The project driver is the management of customer complaints related to deficient service provision i.e. reticulation water mains which have experienced repeated leaks or bursts. The current projects identified in the 2010/11, 2011/2012 and 2012/2013 programs were selected by reviewing and analysing the customer complaints register. This register was provided.	Scope for some of the proposed works (locations, length and diameter of mains) for 2010/11 provided, with a cost estimate based on rates. Their method for estimating rates was provided. Scope for "emergent work" not provided, but cost of $15k included. No detail provided on the analysis to estimate this value. Expecting 50% increase in budget for 2011/12 and 2012/13. No detail provided on scope of work for 2011/12 or 2012/13. No detail provided on the analysis to estimate these values. It is a "Rolling program" and QUU delays or brings forward work to match budget.	Renewals – The work involves replacement of existing assets to ensure desired standards of service are achieved.	
	RFI 84	20100924 RFI 084 response	2010	PDF				
		2007-2009 Somerset water burst data	2010	PDF				

Appendix A3 Prudency and Efficiency of Capital Expenditure Projects

Appendix A3

A.3.1 Capital projects considered efficient and prudent

The following projects are considered to be prudent and efficient:

- Bulimba Creek Trunk Sewer Upgrade Stage 1
- Brisbane Burst Mains Renewal Program
- Ipswich Distribution Water Main Minor Enhance Program
- Ipswich Sewerage Rising Mains Renewal Program Project
- Lockyer Valley Water Retic Mains Improvement Program
- Lockyer Valley Water Retic Mains Renewal Program
- Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation
- Somerset Wastewater Reticulation Mains Renewal Program
- Somerset Water Reticulation Mains Renewal Program

	Bulimba Creek Trunk Sewer Upgrade Stage 1			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$13,000,000	$27,675,000	$11,189,000	$51,864,000
	Source: QUU commissioning model			
	2010/11	2011/12	2012/13	Total
	24,310,000	$24,940,000	-	$49,250,000
	Source: Bulimba Creek Trunk Sewer upgrade Padstow Road to Coora Street. Project Manadate Rev1 June 2009			
Project Description	The scope of Stage 1 upgrade includes the installation of a tunnelled gravity augmentation sewer, which will consist of 4,500m of DN800mm (1983m), DN1000mm (1043m), and DN1200mm (1494m) vitrified clay pipe, running approximately parallel to the existing trunk sewer. This is identified in the documentation as being augmentation Option A. The construction method will be predominantly micro-tunnelling with trenched branch and cross connections. The location of the manhole locations and branch connections has been optimised in the detailed design since the reports were written, however BCC have indicated that the changes are minor.			
Initial Information Provided	Nil			
Initial Data Gaps and Requested Information	RFI 015	The following information was requested in this RFI - Standards of service adopted for the project, Project drivers (e.g. compliance, growth, renewal or improvements), supporting project justification including feasibility studies as well as cost estimates and independent reviews.		
	RFI 120	Request for independent review report on the Bulimba Creek Trunk Sewer Upgrade Stage 1 completed by Beca, April 2010.		
Additional	RFI 015	Bulimba Creek Trunk Sewer Upgrade Padstow Road to Coora Street:		

	Bulimba Creek Trunk Sewer Upgrade Stage 1	
Information Provided		Project Mandate, Bulimba Creek Trunk Sewer Upgrade Padstow Rd to Gibson Island – Strategic study, SQVH - Bulimba Creek Trunk Sewer Augmentation: Pre-Market Business Case and Submission – Tier 1, Bulimba Creek Trunk Sewer Upgrade Stage 1 Padstow Road to Coora Street Feasibility Report.
	RFI 120	Queensland Urban Utilities Major Project Review Scoping Report, Rev. Final 3, April 2010 by Beca Pty Ltd (Beca).
Category Applied	Growth	
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided in the above RFI's. Wet weather flows in the Bulimba Creek Trunk Sewer currently exceed BCC's design standards (adopted by QUU) for flow containment in the sewerage network system. Under current hydraulic loads, both recorded and predicted overflows are occurring during wet weather from the Bulimba Creek Trunk Sewer between Padstow Road and Coora Street (Stage 1), at levels that could compromise QUU's regulatory EPA obligations. This could also result in consequential impacts on creek contamination, public health, access restrictions and potential community discontent. In addition, there is a forecast 40% growth in population for this catchment through to the ultimate planning horizon. The proposed Rochedale development, included in the growth forecast, will only add to the current loadings and exacerbate an already overloaded sewerage transportation system.	
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to appropriate processes based on the information provided in the above RFIs. There were a number of documents provided as part of the submission that imply that this project has been well considered, including a strategic study, a feasibility study and a business case report. In addition, this project is covered by an independent review.	
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The scope of works is to replace the existing trunk sewer with larger pipes to increase the capacity of the sewer as a the population is expected to grow by 40% and the sewer already reaches its capacity and overflows in the upper reaches with a flow of less than 3x ADWF.	
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The project appears to have been designed in accordance with Brisbane City Council's Water Distribution Planning Guidelines for Sewerage and an obligation to cause no environmental harm as a consequence of overflows.	
Efficiency – Market Conditions	The project costs appear to be not unreasonable. Works of this form (tunnelling) have site specific issues which can significantly affect the cost. Brisbane Water have utilised milestone review processes (Gateway reviews) which include cost estimates at relevant milestones. Brisbane Water has completed other comparable tunnelling projects (Woolloongabba area) which would provide good cost references. In addition the provision of Review Reports by consultants (BECA) provides independent assessment of the costs. Based on the above the project costs are	

	Bulimba Creek Trunk Sewer Upgrade Stage 1
	expected to be and appear to be not unreasonable.
Deliverability and Timing	Capital expenditure of this quantum requires a reasonable period for expenditure. The 3 year timeframe is assessed as being possible. The rescheduling of the project over the 3 financial years is predominantly a result of the delay of tendering the project until after the transition of Brisbane Water to QUU. The project should be deliverable in the advised timeframe.
Recommendations	Based on the above, the capital expenditure for this program of works appears prudent and efficient.
Revised Capital Expenditure Value	Not Applicable

	Brisbane Burst Mains Renewal Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	6,800,000	9,943,000	10,500,000	27,249,000
	Source: QUU Commissioning Model			
Project Description	Replacement of water mains with unacceptably high consequence and probability of failure and considering future major urban re-development. It focuses on assets that are in poor condition, unable to be maintained and/or are under performing. These are assets approaching the end of their lives, but also include assets that show sign of early failure. The purpose is management of deficient service provision i.e. repeated leaks or bursts and to minimise consequence of failure. Inclusion in the program is based on estimated annual cost of repairs versus the annualised cost of replacement. Water reticulation mains requiring replacement are prioritised based on failure history and consequence of failure.			
Initial Information Provided	• Business case for 2010/11 water main renewal works. • Renewal program for 2010/11, with scope of work and estimated costs. • Manual for water main renewals assessment procedure. • Example prioritisation matrix. • Policy for water main replacement. • Schedule of rates for water main replacement from a number of contractors (completed tender returns). • Example assessment and submission for approval of a main replacement, which includes cost estimate for replacement, cost estimate of repair cost, customer disruption history, water main details, consequence of failure and sign-off approval of the submission.			
Initial Data Gaps and Requested Information	RFI 087 to request a number of clarifications: • What set of unit rates were used for preparing the costing estimates • Detail to support the estimate for “Emergent Work” within the rolling program. • Detail on how the escalation in total Capital expenditure to 2012/13 was estimated. • Whether “carry over of 2009/10 projects” double-counts the cost of this work for the purposes of the Price Monitoring.			

	Brisbane Burst Mains Renewal Program
	• Further detail of how level of service is considered in the renewal decision, and provision of detail of past performance against any level of service targets (i.e. rate of "customer interruptions"). RFI 106 to request: • The values of the past expenditure on the Brisbane Burst Mains Renewal Program.
Additional Information Provided	• Response to RFI 087 provided on 27/09/2010. • Water main annual number of bursts per 100km rates for 2000 to 2010. • Past expenditure on Brisbane Burst Mains Renewal Program.
Category Applied	Renewals 100%
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Renewals – the project replaces or rehabilitates existing infrastructure to ensure desired standards of service are achieved. Based on the information provided, burst water main rates vary from 28 bursts/100km/ year up to 50 bursts/100km/year. Appropriate asset replacement/rehabilitation capital expenditure will maintain and in some cases improve the performance of Queensland Urban Utilities' asset base. This in turn reduces the number of failures requiring escalation of corrective and responsive maintenance and so can improve whole-of-life costing, reliability, customer levels of service and public safety. Without replacement it is reasonable to expect this burst frequency would increase. The example submission for renewal approval indicates that the NPV of cost of replacement is compared to the NPV for ongoing repair in decision making. The consequence of failure is also considered. The works are prioritised, with the mains with the highest expected burst rates given priority. Approval for replacement includes review of the burst history of the main, which an indicator of condition. The project therefore appears prudent.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to appropriate processes based on the information provided. For the Brisbane Burst Water Main Program QUU have a written policy and procedure for • Identification of water mains with high break history • Compiling relevant information on the water mains • Considering the NPV of replacement against ongoing repair • Compilation and approval of the submission A business case for the renewal program is approved for 2010/11. Documents indicating integration with any risk and asset management planning were not provided. Details of the procurement policy were not provided, although there was evidence that a tendering process occurs as a number of tendered schedule of rates were provided. The process generally appears sound.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. Works enter the programme through customer complaints and analysis of the failure

<table>
<tr><td></td><td>Brisbane Burst Mains Renewal Program</td></tr>
<tr><td></td><td>
history, and are prioritised using prediction of failure rate based on pipe details.

The example submission for approval of a main replacement shows that it allows comparison of the cost estimate for replacement with the cost estimate of repair, as well as consideration of the customer disruption history and consequence of failure in the decision making process to ensure the Council's business is efficient. Cost estimates are based on generic rates provided by contractors.

Renewal involves replacement only.
<table>
<tr><td></td><td>Past Expenditure on this program</td><td>Adjustment to 2010/11 dollars

(Rawlinsons Building Price Index)</td><td>Past Expenditure on this program 2010/11 dollars</td><td>Bursts per 100km</td></tr>
<tr><td>2006/07</td><td>$3.806m</td><td>12.1%</td><td>4.267</td><td>49.7</td></tr>
<tr><td>2007/08</td><td>$5.876m</td><td>4.8%</td><td>6.158</td><td>31.1</td></tr>
<tr><td>2008/09</td><td>$5.341m</td><td>-2.1%</td><td>5.229</td><td>27.8</td></tr>
<tr><td>2009/10</td><td>$4.673m</td><td>0%</td><td>4.673</td><td>37.2</td></tr>
<tr><td>Average</td><td></td><td></td><td>$5.08m</td><td>36.5</td></tr>
</table>
Given Brisbane has 6368km of water mains (as of 1 July 2010), the rate for capital expenditure water main renewal is $1070/km in 2010/11, increasing to $1520/km in 2011/12. This indicates a significant increase in spending. This calculation does not include new mains to be constructed, but this is assumed not to be significant for this benchmark.

The predicted escalation of capital expenditure in 2011/12 and 2012/13 was not fully explained. No detail for the escalation was provided, only a general explanation of the process that was undertaken, which includes using pipe material and asset age data to predict failure rates. The detail of this analysis was not provided. Without further information, it is expected that the increase in failure rate would be more gradual than the 30-50% expected increase in capital expenditure compared with recent expenditure.

Due to the recent drought and general water scarcity, 30 'pressure managed area' zones have been introduced around Brisbane to regulate the pressure of low-level areas in Brisbane in order to reduce water loss within the system. This would be expected to reduce the break rate in these areas for the coming years. It is suggested that operating pressure could be included in the failure rate prediction model.

Assuming that the assessment process is followed for all water main replacements it is considered that the expenditure is efficient (cost effective) for 2010/11.

In requesting "Detail on how the escalation in total capital expenditure to 2012/13 was estimated" we expected to be sent an analysis to justify the increase, but this was not provided. This could have been of the form of an analysis of the pipe age and material cohorts showing a significant increase in the number of mains approaching the end of their design life, or else a trending escalation in the failure rate across the network which needs to addressed to meet the target specified standard of service. It is understood that asset performance modelling and prediction is being undertaken, but no details were supplied.
</td></tr>
</table>

<table>
<tr><th></th><th colspan="4">Brisbane Burst Mains Renewal Program</th></tr>
<tr><td></td><td colspan="4">The information provided is not sufficient to support the increase in expenditure for 2011/12 or 2012/13.</td></tr>
<tr><td>Efficiency – Standards of Works</td><td colspan="4">From a Standards of Works perspective, this project appears to meet the criteria.

The project is designed to achieve a specific level of service, being a maximum of 4 disruptions to a customer during a rolling 12 month period.

Consequence of failure is considered qualitatively.

Water main renewals also serve in the management of leakage rates (when combined with other measures), although this is not considered by QUU.

Information on the standard of works was not provided. It is assumed that the standard of the works would conform with technical, design and construction requirements in legislation, industry and other standards, codes and manuals. The renewal of water mains is a relatively routine project for a water utility.</td></tr>
<tr><td>Efficiency – Market Conditions</td><td colspan="4">The project costs appear to be not unreasonable.

<table><tr><th>Diameter</th><th>Rate per metre ($/m)</th><th>Comparison with SKM Benchmarks ($/m)</th></tr><tr><td>100</td><td>360</td><td>21%</td></tr><tr><td>150</td><td>384</td><td>19%</td></tr><tr><td>200</td><td>540</td><td>26%</td></tr><tr><td>300</td><td>720</td><td>23%</td></tr></table>
Compared to SKM benchmarks, the costs are between +/- 30% of the benchmarks. QUU has noted that the rates “are based on the most expensive contract rates for MPVC pipe under roads in Zone 1.”

The rehabilitation estimates appear to be of the right order of magnitude for the length of water mains and diameters, based on recent quotes SKM has received from contractors.</td></tr>
<tr><td>Deliverability and Timing</td><td colspan="4">The overall project is expected to be deliverable within the proposed timeframe.

2010/11 projects are expected to be deliverable within the proposed timeframe of one year based on past expenditure.

QUU define a rolling program as “a program of works to efficiently deliver a finite number of similar minor capital projects, usually grouped by asset class”. A rolling program is an acceptable method to deliver water main renewals.</td></tr>
<tr><td>Recommendations</td><td colspan="4">Based on the above, it is recommended that the capital expenditure for 2010/11 is prudent and generally efficient.

Without further analysis to support the predicted capital expenditure, for 2011/12 and 2012/13 no assessment of the efficiency of delivery can be finalised. Consequently expenditure for 2011/12 and 2012/13 should be further reviewed before approval.</td></tr>
<tr><td rowspan="3">Revised Capital Expenditure Value</td><td>2010/11</td><td>2011/12</td><td>2012/13</td><td>Total</td></tr>
<tr><td>6,800,000</td><td>Requires further review</td><td>Requires further review</td><td>N/A</td></tr>
<tr><td colspan="4">The capital expenditure for 2010/11 is as per QUU’s return.</td></tr>
</table>

	Ipswich Distribution Water Main Minor Enhance Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$0.114 million	$3.267 million	$3.589 million	$6.970 million
	Source: QUU Commissioning model.			
	2010/11			
	$0.410 million			
	Source: Ipswich Distribution Water Minor Enhance Program			
	2010/11	2011/12	2012/13	Total
	$0.114 million	$3.187 million	$3.416 million	
	Source: ORG_Ipswich Dist Water Minor Enhance Program.xlsx			
Project Description	This program includes some small water main enhancements and a number of larger projects in the Ipswich region. Most of the projects entail the replacement/upgrade of plant and water mains to augment the water distribution system, and to improve the security of water supply and fire flows.			
Initial Information Provided	• 2010/11 Capital Investment Program – Ipswich Project Summaries.			
Initial Data Gaps and Requested Information	RFI 018 was sent to request a number of clarifications: • Previous reports and studies, e.g. planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. • Details of any units rates used for costings. • Documents detailing current programs in place i.e. project drivers, project selection/prioritisation, current mitigation measures and management controls. • Description of proposed works including locations, required mains (lengths and sizes) and associated infrastructure and any associated modelling required for proposed works. • Detail timeframes for proposed works A further RFI 085 was sent requesting cost estimates for the proposed Borallon Pumps project and information on a minor project (which it was discovered, was subsequently removed from the program). A further RFI 118 was sent requesting clarification of the large increase in the capital expenditure from year 10/11 to years 11/12 and 12/13.			
Additional Information Provided	• Response to RFI 018 – Various project scope documents provided on 20/09/2010. • Response to RFI 085 – Various planning memos and layouts provided on 27/09/2010. • Response to RFI 118 – Explanation that for the second FY onwards, this program of works will now also include a rolling program of proposed projects <$1M as a result of a change in definition of what constituted a minor project. A list of the proposed additional projects including their estimated cost was provided. This change of project size classification came about following the formation of QUU.			
Category Applied	Growth 50%			

	Ipswich Distribution Water Main Minor Enhance Program
	Compliance 50%
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need for addressing growth and compliance with safety, operational and environmental standards based on the information provided.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to appropriate processes based on the information provided. Identification and analysis of the projects for FY10/11 appear to follow a sufficiently rigorous process given their size and nature. While a sample of documents such as planning studies, project justifications, and preliminary designs, etc were provided for a number of these projects, generally there appeared to be a lack of rigour in financial analysis. Project justifications included discussion of options but they tended to be addressing only the technical issues with no financial comparisons made. It is therefore suggested that the Minor Capital Project Submission documents should include cost estimates for alternative solutions and an appropriate financial comparison to demonstrate that the preferred solution is not only technically efficient but is the most financially prudent solution. There is a lack of correlation between the QUU word program list for 2010/11 and the excel Ipswich Dist Water Minor Enhance Program. This should be rectified.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. Where project scope of works documents were provided, these typically discussed technical issues, environmental impacts and risks as well as the cost of the selected solution. This is considered appropriate. According to QUU, the smaller projects in this program “tend to be urgent in relation to priority, small in value, but material enough to be outside the scope of maintenance and operational activities”. Because of this, some discussion should be included justifying why those works should be capitalised. This may take the form of a standard paragraph if appropriate, in each capital project submission. It may well be the case that some projects may be a mix of capital expenditure and operational expenditure given their nature.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. Where the information has been provided, (small projects only) the standard of the works generally appears to conform to the required technical, design and construction standards and to the existing Service Standards. However based on the information provided, no reference could be found to compliance with Strategic Asset Management Plans.
Efficiency – Market Conditions	Based on additional information provided, we understand that there are essentially eight "larger projects" in this period. The project requirements were drawn largely from the Ipswich City Water Supply Master Planning Report, 2007. Details of the larger projects, including grouping of related projects, and their status in terms of further planning and further reviews are detailed below: 1) Trunk mains and water main upgrades required to bring the new Chuwar reservoir online consisting of (WNI00286, WNI00012, WNI00276, WNI00275, WNI00032, WNI00029, WNI00023, WNI00014, WNI00257, WNI00027, WNI00137, WNI00254, WNI00255 and WNI00199). The timing of these works is tied to the construction of the Chuwar reservoir (WNI00060) and is currently under review as part of the budget process. These projects are driven by a combination of growth and

improved level of service and are to be the subject of a detailed feasibility study in the coming years. It is recommended that these projects be grouped together and budgeted as an individual project outside of this program.

2) Trunk mains and water main upgrades required to bring the new Walloon reservoir online consisting of (WNI00271, WNI00272, WNI00282, WNI00284 and WNI00285). The timing of these works is tied to the construction of the Walloon reservoir (WNI00121) and is currently under review as part of the budget process. These projects are growth related and will be the subject of a detailed feasibility study which will consider the location of the reservoir and trunk feeder mains. It is recommended that these projects be grouped together and budgeted as an individual project outside of this program.

3) New trunk main augmenting the supply from Haigslea to Marburg (WNI00273 and WNI00274). These projects, which address system deficiencies and allow for growth in the catchment, are currently the subject of a feasibility study currently being undertaken for Project WNI00261.

4) Springfield Elevated HLZ Tower West (WNI00251). This project will be deferred as part of the current budget process as development in this part of the Springfield catchment does not require the construction of this infrastructure at this point in time.

5) Borallon PS upgrade (WNI00049). This project is driven by growth and is currently the subject of a feasibility study which will provide a review of the options and expenditure.

6) Land purchase for Redbank Plains reservoir (WNI00200). This project is driven by significant growth in the south eastern part of Ipswich and is currently the subject of a feasibility study which will provide a review of the options and expenditure.

7) WNI00288 and WNI00266– Goodna Water Zone mains have been the subject of a recent review prior to them being handed over to the Feasibility Section. This review concluded that following a decision to modify the way the Goodna Zone is serviced, these projects are no longer required and have been removed from the program.

8) WNI00264 – Warwick Road Yamanto. This project is currently the subject of a Minor Capital Project Submission. The driver for the project is to improve level of service with the initial findings indicating that there are other options available which will be fully explored and costed prior to proceeding.

Based on information provided, the following projects are no longer required:

	2010/11	2011/12	2012/13
WNI00266 - Goodna Water Zone 20.29m 150mm P112470 (17096.37944.1)	10	-	-
WNI00037 - Borallon Reservoir, Ironbark Rd, Ironbark: Altitude Valve Installation	30	-	-
WNI00251 - Springfield Elevated HLZ Tower West	-	384	-
WNI00288 - Goodna Water Zone 225mm main (P112440 (17096.37944.1) 207.13m 225mm; P112460 (17096.37944.1) 178m 225mm; P112600 (17096.37944.1) 193.67m 225mm)	-	-	62

<table>
<tr><td></td><td colspan="4">Ipswich Distribution Water Main Minor Enhance Program</td></tr>
<tr><td></td><td colspan="4">In addition, a number of projects will be delivered as separate projects in future.
<table>
<tr><th></th><th>2010/11</th><th>2011/12</th><th>2012/13</th></tr>
<tr><td>Delivered as separate project - new Chuwar reservoir</td><td>$0</td><td>$1,825</td><td>$1,340</td></tr>
<tr><td>Delivered as separate project - new Walloon reservoir</td><td>$0</td><td>$54</td><td>$654</td></tr>
</table>
The impact of this is to remove the proposed capital expenditure from this program to two separate projects.

Currently the projects for future years appear only as line items on the overall program. However, we understand that they will be the subject of either a detailed Feasibility Study or Minor Capital Project Submission in the coming years.

A comparison of a number of projects within the 2010/11 program against SKM benchmarks revealed that the costs are within +/- 30% of expected values. Due to the nature of the low value projects (say, under $0.05M) under this program, it is often difficult to make a fair comparison with appropriate benchmark data without making some judgements based on proportional costing which allows for the “small project high setup” factor. However generally, the cost estimates provided for these projects, appear to be reasonable.</td></tr>
<tr><td>Deliverability and Timing</td><td colspan="4">There is insufficient information to make a judgement on the deliverability and timing of projects under construction or completed projects. Notwithstanding this the small amount of works programmed for 2010/11 should be achieved.</td></tr>
<tr><td>Recommendation</td><td colspan="4">Financial year 2010/11 capital expenditure for this program should be reduced by $40k.

Limited information is available regarding the projects which form the 2011/12 and 2012/13 program. However, we understand that they will be the subject of either a detailed Feasibility Study or Minor Capital Project Submission in the coming years.

The future program requires further review when this information is available. The WNI00251 Springfield Elevated HLZ Tower West and the WNI00288 - Goodna Water Zone Projects should not be included in programs.</td></tr>
<tr><td rowspan="3">Revised Capital Expenditure Value</td><td>2010/11</td><td>2011/12</td><td>2012/13</td><td>Total</td></tr>
<tr><td>$74,000
(-$40,000)</td><td>Requires further review</td><td>Requires further review</td><td></td></tr>
<tr><td colspan="4"></td></tr>
</table>

<table>
<tr><td></td><td colspan="4">Ipswich Sewerage Rising Mains Renewal Program Project</td></tr>
<tr><td rowspan="3">Capital Expenditure Value</td><td>2010/11</td><td>2011/12</td><td>2012/13</td><td>Total</td></tr>
<tr><td>$0.578 million</td><td>$0.205 million</td><td>$0.158 million</td><td>$0.9418 million</td></tr>
<tr><td colspan="4">Source: QUU Commissioning model</td></tr>
<tr><td>Project Description</td><td colspan="4">Ipswich City’s sewerage network is currently serviced by 62 sewerage pump stations. The reliability of the rising mains associated with these pump stations is crucial to the performance of the overall system, particularly in minimising the risk of sewerage overflows, which may occur if a rising main fails.

A preliminary investigation of 56 rising mains undertaken during 2006 identified 14 high-</td></tr>
</table>

	Ipswich Sewerage Rising Mains Renewal Program Project
	risk pipelines requiring detailed assessment. An investigation was undertaken to determine the extent of corrosion issues associated with these 14 pipelines. The investigation has identified four rising mains requiring rehabilitation. A detailed condition survey of all rising main air release valves has commenced in order to identify air valves requiring rehabilitation. Project identified under this program for inclusion mainly in the 2010/11 FY are: • Replace rising main air valves • Lamont St rising main rehabilitation • Goodna treatment plant rising main rehabilitation • Enterprise St Wulkuraka rising main replacement
Initial Information Provided	• 2010/11 Capital Investment Program – Ipswich Project Summaries.
Initial Data Gaps and Requested Information	RFI 019 was sent to request a number of clarifications: • Previous reports and studies, e.g. planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. • Details of any units rates used for costings. • Documents detailing current programs in place i.e. project drivers, project selection/prioritisation, current mitigation measures and management controls. • Description of proposed works including locations, required mains (lengths and sizes) and associated infrastructure and any associated modelling required for proposed works. • Detail timeframes for proposed works. A further RFI 086 was sent requesting clarification of which feasibility studies pertained to a number of projects listed under this program.
Additional Information Provided	• Response to RFI 019 – feasibility studies - provided on 20/09/2010. • Response to RFI 086 – clarifying emails, maps and consultant hydraulic report - provided on 27/09/2010.
Category Applied	Renewal : 100%
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Sufficient information has been provided to support the case for addressing renewal based on compliance with safety, operational and environmental standards.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to appropriate processes based on the information provided. Identification of the projects described appeared to have followed a sufficiently rigorous process relative to their size and nature. Based on the documents provided, there appeared to be minimal financial analysis although it was noted that an AECOM rising main study associated with two Goodna treatment plants did contain a financial analysis. It is suggested that future project justifications should contain some basic financial analysis/comparison and an Asset Management check where whole of life considerations can be taken into account. For example, a lifecycle cost comparison

	Ipswich Sewerage Rising Mains Renewal Program Project
	between a number of ongoing repairs verses replacement of a larger section of pipe. This might be carried out on a sample basis if it were considered inappropriate to carry it out for each project e.g. due to its size.
Efficiency – Scope of Works	From a Scope of Works perspective, this project generally appears to meet the criteria. Where project scope of works documents were provided, these typically discussed technical issues, environmental impacts and risks as well as an estimate. This is considered appropriate. Because of the nature of this program, that is, typically small renewal works, some discussion should be included justifying why the works should be capitalised. This may take the form of a standard paragraph if appropriate, in each capital project submission. It may well be the case that some projects could be determined as a mix of capital expenditure and operational expenditure given their nature.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The standard of the works generally appears to conform to the required technical, design and construction standards and to the existing Service Standards. Based on the information provided under this project, no reference could be found to Strategic Asset Management Plans.
Efficiency – Market Conditions	Estimated expenditure for the three financial years under review is considered to be reasonable and appears to be prudent, given that investigations have revealed issues with 14 high-risk pipelines requiring detailed assessment which are likely to lead to ongoing projects of this nature. A comparison against SKM benchmarks reveals the costs to be within 30% of the benchmarks. Due to the nature of the projects under this program, it is often difficult to make a fair comparison with appropriate benchmark data without making some judgements based on proportional costing which allows for the “small project high setup” factor. Generally, the cost estimates provided for the projects described, appear to be reasonable.
Deliverability and Timing	There is insufficient information to make a judgement on the deliverability and timing of projects under construction or completed projects. Notwithstanding this the works programmed should be achieved.
Recommendations	Based on the above, the capital expenditure for this program of works for the three years commencing 2010/11 appears prudent and efficient.
Revised Capital Expenditure Value	Not Applicable

	Lockyer Valley Water Retic Mains Improvement Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	\$0.1million	\$0.103 million	\$1.786 million	\$1.989 million
	Source: QUU commissioning model.			
Project Description	The project comprises the upgrade of 620m of DN100 watermains in William St and a link main in Spencer / Crescent Sts, Gatton.			

	Lockyer Valley Water Retic Mains Improvement Program
Initial Information Provided	• WWP3_L_1011_PL.pdf
Initial Data Gaps and Requested Information	• The initial documents provided were related to wastewater, not to potable water. • RFI 081 – Request for water program list and supporting documents. • No supporting documents provided. • RFI 102 – Request for supporting documents.
Additional Information Provided	• RFI 081 – RW_L_DW2_1011_PL.pdf provided on 27/09/2010. • RFI 102 - 20100929 RFI 102 response.pdf provided on 30/09/2010.
Category Applied	The category from capital expenditure list is Growth 100%. The category from supporting documentation is Growth 70% and Improvements 30%. The categorisation Growth 70% and Improvements 30% appears correct.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need based on the information provided. Upgrade of the watermain in William St is required to meet fire-flow requirements. The new link main in Spencer / Crescent Sts will benefit the area through improved flows, reliability and decreased risk of dirty water complaints that are usually associated with dead-end mains. This program provides enhanced services to customers in order to achieve standards of service, minimise complaints, and services to new developments. Based on the information provided, the project appears prudent.
Prudency (i.e. there are appropriate policies and processes in place)	A business case program list is provided. However, there is no base case or minor capital project submission (MCPS). It may be that the documents have not been prepared at this point in time. Notwithstanding this, this project generally appears to be prudent with respect to appropriate processes based on the information provided.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. Works are predominantly identified by field staff based on experience in managing the water supply system.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The standard of the works complies with Asset Management Plans.
Efficiency – Market Conditions	The project costs appear to be not unreasonable. The rates used for determination of program budgets were originally taken from the asset register maintained by Lockyer Valley Water. Based on feedback from Brisbane staff these rates were doubled when it was pointed out that the rates assumed for construction seemed too low.
Deliverability and Timing	The project is expected to spend $100,000 in 2010/11. 2011/12 and 2012/13 programs have not been developed yet. Notwithstanding this the works programmed should be achieved.
Recommendations	Financial year 2010/11 capital expenditure appears prudent and efficient. However, due

	Lockyer Valley Water Retic Mains Improvement Program			
	to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$100,000	Requires further review	Requires further review	

	Lockyer Valley Water Retic Mains Renewal Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$0.16 million	$0.174 million	$0.798 million	$1.122 million
	Source: QUU commissioning model. From document RW_L_DW1_1011_PL – *$0.16 million in 2010/11.*			
Project Description	The project comprises the replacement of 5 watermains in the townships of Gatton and Laidley. The watermains are all 100mm in diameter with a total length of 936m.			
Initial Information Provided	• RW_L_ DW1_1011_PL.pdf (Lockyer Valley Water Retic Mains Renewal Program, Program List).			
Initial Data Gaps and Requested Information	• The initial document provided was related to wastewater, not to potable water. • RFI 082 – Request for water program list and supporting documents. • Supporting documents not provided. • RFI 103 – Request for supporting documents.			
Additional Information Provided	• RFI 082 – RW_L_ DW1_1011_PL.pdf provided on 27/09/2010. • RFI 103 - 20100924 RFI 103 response.pdf provided on 30/09/2010.			
Category Applied	Renewals 100%			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need based on the information provided. The project proposes the replacement of five (5) existing water mains to ensure existing standards of service are maintained. According to QUU, asset condition assessment will be undertaken this financial year to determine priority for delivery in future financial years. If an identified project does not proceed the asset will be maintained either reactively or through planned maintenance activities until the asset condition deteriorates to a point where capital investment is justified. QUU's response raises the question about the source of funding for these proposed works. If the work is maintenance, then the expenditure would be expected to be Operational expenditure and not Capital expenditure. This further raises the question regarding a consistent set of rules for the water Utilities to follow in allocating expenditure as agreed with the Authority, unless already covered. Because; (a) the proposed scope of works is based on the replacement of five water mains			

	Lockyer Valley Water Retic Mains Renewal Program
	subject to condition assessment yet to be carried out and, (b) no other water mains have been identified for age related assessment and, (c) there is no indication that the proposed work would extend beyond FY 2010/11, the need for additional expenditure in 2011/12 of $0.16 million and $0.76 million in FY 2012/13 requires further justification.
Prudency (i.e. there are appropriate policies and processes in place)	A business case program list is provided. However, there is no base case or minor capital project submission (MCPS). It may be that the documents have not been prepared at this point in time due to the need to carry out condition assessment first. Notwithstanding this, this project generally appears to be prudent with respect to appropriate processes based on the information provided.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The scope of works is the management of age related assets. Mains identified as being older than 60 years were identified for replacement. The projects were selected using historical construction records.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The standard of the works complies with Asset Management Plans. The technical replacement proposals as set out in the Program List, appear to be sound and in accordance with normal industry practice.
Efficiency – Market Conditions	The project costs for 2010 appear to be not unreasonable. The rates used for determination of program budgets were originally taken from the asset register maintained by Lockyer Valley Water. Based on feedback from Brisbane staff these rates were doubled when it was pointed out that the rates assumed for construction seemed too low. The cost in the supporting document agrees with the value within the 2010/11 budget.
Deliverability and Timing	The project is expected to spend $0.16 million in 2010/11. 2011/12 and 2012/13 programs have not been developed yet. Notwithstanding this the works programmed should be achievable.
Recommendations	Financial year 2010/11 Capital expenditure appears prudent and efficient. However, due to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works. The determination that expenditure under this program of works should be capitalised, requires resolution.
Revised Capital Expenditure Value	2010/11 | 2011/12 | 2012/13 | Total $0.160 million | Requires further review | Requires further review |

	Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation			
Capital	2010/11	2011/12	2012/13	Total

	Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation			
Expenditure Value	$0.2 million	0	0	$0.2 million
	Source: QUU Commissioning Model From Brookes Drive Reservoir Implementation MCPS Final – *$302 thousand*			
Project Description	The project comprises the construction of a new 250kL reservoir at Brookes Drive, Kooralbyn to replace the existing 20kL reservoir. The project includes construction of new inlet and outlet pipework, relocation of the existing telemetry equipment and water booster.			
Initial Information Provided	• Beaudesert Model Build Report February 2008.pdf • Brookes Drive Reservoir Implementation MCPS - Final.pdf			
Initial Data Gaps and Requested Information	• This MCPS presents costs of $302,223 (Attachment D) based on supplier quotes. However, the proposed budget for this project is $200,000. • RFI 109 – Verification of budgets.			
Additional Information Provided	• Response to RFI 109 not provided as of 05/10/2010			
Category Applied	Renewals -Part Improvement - Part			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided The project replaces existing 20kL reservoir to ensure the following benefits are achieved, • better ability to meet peak demands (increased storage), • improved fire flow provision, • improved reliability of supply during power outages to properties supplied under gravity from the reservoir, • a reduced number of instances of water pressure falling below Standards of Service levels and, • improved customer satisfaction.			
Prudency (i.e. there are appropriate policies and processes in place)	This project generally appears to be prudent with respect to appropriate processes based on the information provided A minor capital project submission (MCPS) and preliminary study report are provided. However, there is no business case program list or business case. It may be that the documents have not been prepared at this point in time.			
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria 5 options have been considered. The option with a 250kL reservoir provides the greatest benefit to the greatest number of properties in both pressure zones. It almost eliminates risk to water availability upstream of the HLZ booster pump during times of maximum demand. The recommended 250kL ground level reservoir project includes the necessary connecting mains and the relocation of the SCADA and the booster pump.			
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The standard of the works conforms with the Beaudesert Shire Council's standards of service and design and construct manual.			

	Scenic Rim Brookes Drive Reservoir (Kooralbyn) Implementation
Efficiency – Market Conditions	The project appears to be not unreasonable based on the provided quotes from suppliers.
Deliverability and Timing	The works programmed should be achieved, notwithstanding that permits and approvals are yet to be acquired.
Recommendations	Based on the above, the project appears prudent and efficient.
Revised Capital Expenditure Value	Not Applicable

	Somerset Wastewater Reticulation Mains Renewal Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	290,000	154,000	389,000	833,000
	Source: QUU commissioning model			
Project Description	Condition Assessment, Replacement and Rehabilitation of sewer mains. The purpose is management of deficient service provision i.e. the reticulation sewer servicing the subject property is fully or partially blocked. It focuses on assets that are in poor condition and/or are under performing. These are assets approaching the end of their lives, but also include assets that show sign of early failure, such as through excessive tree root intrusion.			
Initial Information Provided	• Renewal program for 2010/11, with scope of work and estimated costs.			
Initial Data Gaps and Requested Information	RFI 083 to request: • Documents detailing current programs in place i.e. what are the project drivers, how are projects selected and prioritised (e.g. condition assessments, asset age) and what current mitigation measures and management controls are in place. • Are there any previous reports and studies, e.g. planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. • Requested details of any units rates used for costing. • Asked how the 2011/12 and 2012/13 programs were developed. • What is allowed for in “Emergent Work” and how this was costed.			
Additional Information Provided	• Response to RFI 083 provided on 27/09/2010. • Customer complaints register for 2007/08, 2008/09 and 2009/10.			
Category Applied	Renewals 100%			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need based on the information provided. Renewals – the project replaces or rehabilitates existing infrastructure to ensure desired standards of service are achieved.			
Prudency (are there appropriate policies and	With respect to the use of appropriate processes based on the information provided there is opportunity for improvement.			

	Somerset Wastewater Reticulation Mains Renewal Program
processes in place?)	For the Somerset Wastewater Reticulation Main Program QUU do not appear to have a written policy and procedure for: • Target level of service • Prioritisation of investigations • Compilation of relevant information on the mains • Consideration of the NPV of replacement against ongoing repair • Compilation and approval of the submission No previous reports and studies, e.g. NPV analysis, planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works were provided. Documents indicating integration with any risk and asset management planning were not provided. Details of the procurement policy were not provided. The exact details and process for the link between the customer complaints register and the renewals process were not provided. The program appears reactive. It is recommended that QUU apply a more rigorous assessment and documentation processes for this wastewater main renewal program. Works enter the programme through customer complaints.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. Condition Assessment (CCTV) inspection is undertaken to verify that the asset is in poor condition or that the asset is in a condition whereby it is no longer economic to maintain through operational expenditure. Renewal includes both replacement and rehabilitation, indicating the most efficient solution should be selected.
Efficiency – Standards of Works	Information on the standard of works was not provided. It is assumed that the standard of the works would conform with technical, design and construction requirements in legislation, industry and other standards, codes and manuals. The renewal of sewers are a relatively routine project for a water utility. From a Standards of Works perspective, this project generally appears to meet the criteria
Efficiency – Market Conditions	The rehabilitation estimates appear to be of the right order of magnitude for the length of sewers and diameter, based on recent quotes from rehabilitation contractors obtained for other projects. In order to develop an approximate budget rate to be utilised in Somerset the rates obtained for Brisbane which Queensland Urban Utilities considers reliable where multiplied by a factor of 2 to take into account identified risk issues. The total project costs were then rounded to the nearest $10k.
Deliverability and Timing	2010/11 projects are expected to be deliverable within the proposed timeframe of one year. No significant approvals or land purchases are generally expected to be required to undertake the renewals. Queensland Urban Utilities define a rolling program as “a program of works to efficiently deliver a finite number of similar minor capital projects, usually grouped by asset class”.

	Somerset Wastewater Reticulation Mains Renewal Program			
	A rolling program is an acceptable method to deliver water main renewals.			
Recommendations	Based on the above, it is recommended that this capital expenditure is prudent and efficient. It is recommended that documentation of appropriate policies and processes is undertaken.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	290,000	Requires further review	Requires further review	

	Somerset Water Reticulation Mains Renewal Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	300,000	503,000	473,000	1,276,000
	Source: QUU commissioning model			
Project Description	Replacement of water mains due to leak and break history, as an indicator of future probability of failure. The purpose is management of deficient service provision i.e. repeated leaks or bursts It focuses on assets that are in poor condition and/or are under performing. These are assets approaching the end of their lives, but also include assets that show sign of early failure.			
Initial Information Provided	• Renewal program for 2010/11, with scope of work and estimated costs.			
Initial Data Gaps and Requested Information	RFI 084 to request: • Documents detailing current programs in place i.e. what are the project drivers, how are projects selected and prioritised (e.g. condition assessments, asset age) and what current mitigation measures and management controls are in place. • Are there any previous reports and studies, e.g. planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works. • Requested details of any units rates used for costing. • Asked how the 2011/12 and 2012/13 programs were developed. RFI 106 to request: • The 2011/12 and 2012/13 programmes of work (scope and cost). • The review and analysis of the customer complaints register. • The values of the past annual expenditure on the Somerset Water Retic Mains Renewal Program.			
Additional Information Provided	• Response to RFI 084 provided on 27/09/2010. • Water Main burst data for 2007-09.			

	Somerset Water Reticulation Mains Renewal Program
	• Response to RFI 106 provided on 30/09/2010. • High-level 2011/12 and 2012/13 programmes of work.
Category Applied	Renewals 100%
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need, based on the information provided. Renewals – the project replaces or rehabilitates existing infrastructure to ensure desired standards of service are achieved. Based on the information provided, some of the water main breaks are occurring in poor condition mains, which would justify replacement, therefore the project appears prudent.
Prudency (are there appropriate policies and processes in place?)	With respect to the use of appropriate processes based on the information provided there is opportunity for improvement. For the Somerset Water Reticulation Main Program Queensland Urban Utilities do not appear to have a written policy and procedure for: • Target level of service • Identification of water mains with high break history • Identification of critical mains • Compilation of relevant information on the water mains • Consideration of the NPV of replacement against ongoing repair • Compilation and approval of the submission No previous reports and studies, e.g. NPV analysis, planning reports, feasibility studies, concept reports, detailed design reports including any costs associated with proposed works were provided. Documents indicating integration with any risk and asset management planning were not provided. Details of the procurement policy were not provided. The exact details and process for the link between the customer complaints register and the renewals process were not provided. The program appears reactive. It is recommended that QUU apply a more rigorous assessment and documentation processes for this water main renewal program. Works enter the programme through customer complaints.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. A basic-level analysis of the customer complaints register was provided, but the link to the program of works for water main renewal is not completely clear. Given Somerset has 207km of water mains (as of 1 July 2010), the rate for capital expenditure water main renewal is $1550/km in 2010/11, increasing to $2170/km in 2012/13 (not including allowance for new mains). The escalation of capital expenditure for 2011/12 and 2012/13 is not fully explained. Queensland Urban Utilities advised that past expenditure information is limited because of the amalgamation of local Authority's. The only past expenditure information Queensland Urban Utilities provided is $160k for 09/10. This is significantly less than Queensland Urban Utilities predicted future expenditure.
Efficiency –	Information on the standard of works was not provided. It is assumed that the standard

	Somerset Water Reticulation Mains Renewal Program			
Standards of Works	of the works would conform with technical, design and construction requirements in legislation, industry and other standards, codes and manuals. The renewal of water mains is a relatively routine project for a water utility. From a Standards of Works perspective, this project generally appears to meet the criteria.			
Efficiency – Market Conditions	The project costs for 2010/11 appear to be not unreasonable. The rehabilitation estimates appear to be of the right order of magnitude for the length of water mains and diameters, based on recent quotes from contractors. Since the predicted escalation of capital expenditure in 2011/12 and 2012/13 was not fully explained, the information is not sufficient to support the increase in expenditure for 2011/12 and 2012/13.			
Deliverability and Timing	2010/11 projects are expected to be deliverable within the proposed timeframe of one year. The proposed total length for replacement (under 1km) should be achievable. Given the lower past expenditure, it is not clear that the increased expenditure for 20111/12 and 2012/13 is achievable. QUU define a rolling program as "a program of works to efficiently deliver a finite number of similar minor capital projects, usually grouped by asset class". A rolling program is an acceptable method to deliver water main renewals.			
Recommendations	Based on the above, the capital expenditure for 2010/11 appears prudent and efficient. However, due to insufficient information supporting the forecast expenditure in FY 2011/12 and 2012/13 it is not possible to finalise the assessment of the efficiency of these later works It is recommended that QUU develop and apply a more rigorous assessment and documentation processes for this water main renewal program.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	300,000	Requires further review	Requires further review	

A.3.2 Capital projects not considered efficient and prudent

The following projects are not considered to be prudent and/or efficient:

- Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn
- Lang PDE Wet Weather Pump Station

	Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	0	$2.607 million	0	$2.607 million
	Source: QUU commissioning model.			
Project Description	The project comprises the augmentation of a new 8ML reservoir at Walker Drive, Kooralbyn in the year 2051 (sic) to cater for growth in the catchment area.			

	Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn
Initial Information Provided	• Beaudesert Model Build Report February 2008.pdf
Initial Data Gaps and Requested Information	• This report identified that the Walker Drive reservoir to be augmented in the year 2051. However, based on the submitted capital expenditure program, there is an expenditure of $2.54 million in the 2011/12. • RFI 99 – Clarification as to whether this project is due to commence in the 2011/12 financial year.
Additional Information Provided	• RFI 99 – Copy of Previously Sent Email.pdf provided on 30/09/2010. Email Reponse.pdf provided on 30/09/2010.
Category Applied	Growth 100%
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need based on the information provided. According to the Beaudesert Model Build Report (February 2008) upgrade of the reservoir due to increased population growth in the catchment area is not required until 2051. Queensland Urban Utilities have identified that "In gathering the information request for the Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn project it was recognised that the funding of this project in the capital program was driven by a recommendation by GHD to Scenic Rim Regional Council during the Council of Mayors SEQ Water Reform Program Due Diligence project to increase funding for reservoirs due to the projected growth within the region. This has resulted in the funding for the Walker Drive Reservoir Kooralbyn when their Master Planning had not identified the work for delivery at this time. Queensland Urban Utilities capital planning process requires a feasibility study to be done for all projects and a feasibility study is due to commence for this project next month. During this process the requirement due to population growth for a new or upgrade to a reservoir within the Scenic Rim district will be reviewed." SKM agrees with Queensland Urban Utilities that further work is required on this project. Until the projected growth has been reviewed and the feasibility study completed.
Prudency (i.e. there are appropriate policies and processes in place)	The project generally appears to be proceeding in a prudent manner with respect to appropriate processes based on the information provided. A preliminary study report is provided. Additional information will be required in due course.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The model described in the report was developed based on the Digital Cadastral Database (DCDB) and property data sourced from the BSC corporate database. From which the model produces an Equivalent Tenement (ET) population for each parcel of land throughout the Shire. The future scenarios within the model were scaled to match the adopted population projections of the recently completed WOSP study, with a minor adjustment (approximately 10%) necessary.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The standard of the works conforms with the Beaudesert Shire Council's standards of service and design criteria. Future designs for this asset should be in line with the latest

	Scenic Rim Upgrade Walker Drive Reservoir Kooralbyn			
	standards of service.			
Efficiency – Market Conditions	The project costs appear to be not unreasonable. The cost estimates presented in the report are an indicative engineering estimate. They are based on Cordell's and Rawlinsons' cost data and engineering experience on similar projects. The cost estimates are not Quantity Surveyor quantities or estimates. Accuracy of these estimates is not warranted in any way and should only be used for indicative budgeting purposes.			
Deliverability and Timing	SKM supports QUU's statement that "Pending a review of the requirement for the project - we anticipate that the new reservoir will not be needed within the next 5 years and will be deferred to future years".			
Recommendations	Based on the above, the overall assessment of prudency and efficiency is not required at this point in time. It is recommended that this project be removed from the 2011/12 budget and reviewed again for inclusion into future budgets once more information is available.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	0	0	0	0
	Remove from budget.			

	Project: Lang PDE Wet Weather Pump Station			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	-	-	$ 2,000,000	$ 2,000,000
	Source: QUU capital expenditure list.			
	2010/11	2011/12	2012/13	Total
	-	-	-	$ 4,385,000
	Source: Response to RFI 070 (27/09/2010) – different from the figures listed in the QUU capital expenditure list.			
Project Description	The capacity upgrade of Lang Parade Wet Weather Pump Station has been identified as an outcome of the development of the master plan (2002) for the S1N sewage catchment. This upgrade is proposed to address the surcharging issue, particularly between the Lang Parade and the intersection with the Hocking St siphon. Based on outcomes from option analysis / assessment for this upgrade, the option to divert the flow from the Auchenflower sewer to downstream of the siphon intersection is preferred. This option involves the construction of a new wet weather pumping station, a rising main and high level gravity sewer.			
Initial Information Provided	■ S1 North Sewerage Catchment Master Planning Study (Final Report). ■ S1 Sewerage Catchment Master Planning Investigation – Review. ■ Pre-TOR / Feasibility Assessment into WWP104 Land PDE Wet Weather Pump Station (S1N – Misc) WWP48 Auchenflower Branch Sewer (S1N-GM13).			
Initial Data Gaps and Requested Information	RFI 070 Clarification required on the following to assist in the assessment of the efficiency: ■ Cost and works program, and to verify with the figures provided in the Queensland			

	Project: Lang PDE Wet Weather Pump Station
	Urban Utilities capital expenditure list. ■ Accuracy and confirmation of details for this project – as the supporting documents (master plan and master plan review) were prepared a few years ago, and does not appear to provide the same outcome.
Additional Information Provided	■ RFI 070 – response received from QUU (Cameron Jackson) 27/09/2010. <u>Response to RFI 070:</u> Lang Parade Wastewater Pump Station (LPWWPS) was identified as being required in the 2002 S1 North Sewerage Catchment Master Plan to assist in alleviating wet weather surcharge along Coronation Drive. The 2006 S1 master plan did not identify LPWWPS as being required for two key reasons: ■ Serious surcharge along Coronation Drive would be relieved by diverting wet weather flow (150 L/s) from Heroes Avenue pump station into the S2 West catchment; and, ■ The overall cost / benefit of the project and Brisbane Water's acceptance of greater risk in managing wet weather surcharge in the gravity main. The 2006 Master Plan also investigated other modified planning cases to understand how the system would perform under various optimising strategies. Potential solutions were identified; however, further investigation was required to support any recommendation. On this basis, while the 2006 master plan did not specifically identify the Lang Parade project for construction, on-going discussions and investigations concluded that some form of diversion (by pump station) along Coronation Drive would be required. With the impending Brisbane City Council revised population projections (increase in growth) and modified planning cases, it was considered prudent to retain the Lang Parade item in the capital investment plan. The S1 sewerage scheme is currently being reviewed as part of the 2010 Master Plan. A significant degree of growth has been identified in the catchment, particularly in the Toowong, Auchenflower and West End areas. As a result, various optimisation scenarios are being assessed to alleviate serious surcharging along Coronation Drive. Some of these options include the construction of a new pump station on the north-side of the river to divert wet weather flow away from Coronation Drive via a river crossing to West End. The study is expected to be completed by November / December 2010.
Category Applied	Growth - Predominantly.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided, although it is noted that the scope of works has yet to be confirmed.
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, the project appears to demonstrating that appropriate policies and processes were partially implemented. It demonstrates to a certain extent compliance with the planning approach specified within the QUU Price Monitoring submission document, particularly with regards to the following: ■ At the high level planning for this project, the requirements to meet business benchmark key performance indicators (ie increase in growth) were taken into consideration. ■ Opportunities for improvements are identified and assessed for this project during the master plan stage.

	Project: Lang PDE Wet Weather Pump Station
	▪ A pre-TOR / feasibility study was conducted for this project. Gaps: ▪ The documentation provided – master plan (2002) and master plan review (2006) did not provide the similar outcomes. Clarification requested from QUU, of which QUU commented that "while the 2006 plan did not specifically identify this project for construction, on-going discussions and investigations concluded that some form of diversion would be required." ▪ Outcomes from the on-going discussions and investigations not provided. ▪ Supporting documentation for the business case and preliminary design for this project was lacking. In summary, there was : ▪ Lack of information to support / justify the decision to go-ahead with this project. ▪ No business case. ▪ No detailed design. ▪ Lack of accompanying documents that reflect integration with risk and asset management planning, corporate directives. ▪ Lack of details of the procurement policy. It is noted that this project is not due to proceed until 2012/13. It is recommended that QUU develop and apply a rigorous assessment and documentation processes for project prior to its implementation.
Efficiency – Scope of Works	▪ From a Scope of Works perspective Details on the basis of costs (unit costs) and assumptions are included within the master plan. ▪ Options were investigated and assessed to determine the one appropriate option for the project. ▪ However, it is unclear from the feasibility report, master plan (2002) and master plan review (2006) on how the conclusion to implement this project was reached. ▪ Clarification / supporting information was requested. Response indicated "…while the 2006 master plan did not specifically identify the Lang Parade project for construction, on-going discussions and investigations concluded that some form of diversion (by pump station) along the Coronation Drive would be required." ▪ This provides confirmation that this project is valid – although noted that no further documentation detailing the outcomes of the above mentioned discussions and investigations were provided. ▪ It is noted from the Response to the RFI 070, that options to upgrade the S1 Sewerage scheme are currently being reviewed. Outcomes will be detailed within the 2010 master plan – which is expected to be completed Nov / Dec 2010. From a Scope of Works perspective, this project appears to generally meet the criteria.
Efficiency – Standards of Works	This project considers the existing and adjacent infrastructure. However, additional information will be required to further assess the efficiency of the expenditure (standard of works), particularly in terms of conformance with specific design, technical, construction standards and legislations; as well as compliance with QUU's strategy asset management strategy.
Efficiency – Market Conditions	It is difficult to confirm whether the project is of the right order of magnitude given the limited data available, and the fact the need for the project will not be confirmed until the completion of the 2010 master plan in November /December. Given it is a relatively moderately sized pumping station $6.7M appears to be a fairly conservative cost estimate for a pump station that appears to be on existing entity land,

	Project: Lang PDE Wet Weather Pump Station			
	but this might reflect a high contingency because of the early phase of planning the project, or local site risk not indicated in the limited documents provided.			
Deliverability and Timing	Given the uncertainty about the need for the project it is difficult to confirm whether the deliverability / timing is prudent. Provided the scheme is confirmed in the upcoming master plan, it should be feasible to scope the scheme, design, tender and commence construction such that the works programmed for 2011/2012 is achieved.			
Recommendations	Based on the above, the project is prudent. Notwithstanding this it is recommended to QUU develop and apply a more rigorous assessment and documentation processes for this project. From an efficiency perspective, insufficient information is available to assess this project. It is recommended that QUU develop or provide further information to support / justify the magnitude of expenditure. This project should be reviewed again for its prudency and efficiency when more detailed information is available (particularly on the scope of works, market conditions, and deliverability and timing).			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
			Requires further review	

Appendix A4 Adequacy of information for operating expenditure

QCA Opex Requirement Table

Entity: Queensland Urban Utilities

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
5.11 Operating costs									
5.11.1 For 2010/11, an *entity* must provide details, allocated between the deemed categories in 3.4.2, of:									
(a) actual operating costs (including taxes and approved establishment costs) for the year ending 30 June 2009 and estimated actual operating costs (including taxes and establishment costs) for the year ending 30 June 2010	'Data Store' tab of QCA Information Requirement Template. Actuals for FY09 &10 included as supporting information.	Y	Y (i) BCC TB FY09 Final.xls, (ii) BCC 2009-10 Year end forecast.xls, (iii) ICC P&L FY09&10.xls, (iv) LVRC P&L Act FY09 and Frcst April2010.xls (v) SRRC Act FY 09 split.xls, (vi) SRRC EOY Op Fore FY10.xls, (vii) SRC TB FY09.xls, (viii) SRC FY10 Forecast.pdf	Nil	Costs in this area have not been fully apportioned to all categories.	QUU identified that the Western Councils did not operate a separate water business. For example, customer service was for all council activities, not water & wastewater specifically. Hence, there is difficulty in being able to fully apportion costs to all categories.	QUU has adopted BCC accounting system.	Nil	Nil
(b) forecast operating expenditure (including taxes and approved establishment costs) from 1 July 2010 to 30 June 2013	'Data Store' tab of QCA Information Requirement Template. Methodology used for development of the operating budget is given in Section 5.11.1 of the Submission.	Y	Y	It would be expected that there would be costs against all of the operating cost categories. Request for information has been issued to confirm that costs such as 'customer service', 'community service obligations', 'license and regulatory fees' have been included under other categories.	Costs in this area have not been fully apportioned to all categories.				Costs to be assigned against all of the operating cost categories. Align the cost categories identified in the return with those used on each entities accounting system to allow efficient output of data.
(i) customer service and billing		N	N						
(ii) regulated demand management costs		N	N						
(iii) community service obligation costs		N	N						
(iv) other costs		N	N						
(c) distribution operating costs									
(v) employee expenses		Y	Y 'Data Store' tab of QCA Information Requirement Template.						
(vi) contractor expenses		Y	Y 'Data Store' tab of QCA Information Requirement						

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
			Template.						
(vii) GSL payments		N	N						
(viii) materials and services (not relating to capital expenditure), including: • the hire of equipment to undertake maintenance works • purchase of materials (including chemicals); • electricity charges; • plant operation; • vehicle running costs; • information technology; • insurance; and • other.		Y	Y 'Data Store' tab of QCA Information Requirement Template.						
(ix) licence or regulatory fees		N	Y 'Data Store' tab of QCA Information Requirement Template.						
(x) natural resources management costs		N	N						
(xi) corporate costs		N	Y 'Data Store' tab of QCA Information Requirement Template.						
(d) indirect taxes		N	N						
5.11.2 Comparative Data: An *entity* is required to provide an explanation of any significant change in expenditure in the explanatory notes section.		N	N	Significant increase in the cost of the wastewater activity from FY10 to FY11 was noted for Lockyer Valley, Scenic Rim and Somerset. Request for Information has been issued to confirm reasons for this increase.					
5.11.3 Explanatory notes An *entity* is required to provide information on all operating expenditure items that have been allocated across *entity business segments* or asset categories, including a description of the item, the value in thousands of dollars, the basis of allocation (including the percentage split), reason		Y	Y 'Allocation' tab of QCA Information Requirement Template.	Nil	Methodology, values, percentage split is included. The reason for selecting this method is not documented.	QUU have acknowledged that the allocation of costs across the business or asset categories could be refined.	QUU have acknowledged that the allocation of costs across the business or asset categories could be refined and will be	Nil	Nil

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
for choosing this basis and any relevant notes from the business's annual report. An *entity* is also required to provide the reasons for anticipated changes in operating costs and taxes over the period from 1 July 2010 to 30 June 2013. An *entity* is also required to provide further explanation of significant one-off expenditure items or any allocations made that would assist the Authority in its assessment of the *entity's price monitoring information returns.* *Queensland Competition Authority Information requirements for 2010/11* *16*							improved in future submissions.		
5.11.4 Subsequent Years **For subsequent years**, a greater level of disaggregation of operating expenditure may be required. For that to be effected, a substantial effort may be required to allocate costs to their appropriate category. The degree of detail required by the ESC in Victoria for example forms Attachment 1.		N	N	Nil	No forecast data beyond the interim price monitoring period has been supplied.	QUU along with the other entities are in the first weeks of operation. To date, the focus has been on providing budget information for the interim price monitoring period (FY11-13). It would be reasonable to expect that sufficient resources are not available to provide budget information of value beyond FY13 in the first year of price monitoring.	No formal commitment to providing operating expenditure detail for *subsequent years* has been made.	Nil	Operating Costs for subsequent years to be supplied in future submissions as resources become available.
5.12 Third Party Transactions									
5.12.1 Where an *entity* enters into transactions with a *third party* which total greater than $1,000,000 of operating expenditure in aggregate, or $10,000,000 of *capital expenditure* in aggregate for the *financial year*, the *entity* must disclose:	Details of Third Party Transactions are included in Section 5.12 of the Submission.								
(a) the name of the *third party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(b) a description of the services provided by the *third party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(c) the value of the payments made to the *third party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(d) a description of how the basis for the payment was determined		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(e) a description of how the payment is reflected in the price *monitoring information returns*, including the asset class or cost		N	N	Details of where costs for third party transactions appear in					

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
category that the costs are included in				monitoring information are not provided. Requests for Information have been sent to clarify this.					
5.13 Related Party Transactions									
5.13.1 Where an *entity* enters into a transaction with a *related party* the *price monitoring information returns* must disclose for each transaction:	Details of Related Party Transactions are included in Section 5.13 of the Submission.								
(a) the name of the *related party* which incurred the cost in providing the service to the *entity* and a description of the *entity's* interest in the *related party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(b) a description of the service provided or received by the *related party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(c) the value of the payments for the service		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(d) demonstration that the value reflects that which would be paid by two companies dealing at arm's length dealing with each other		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(e) a description of how the value was arrived at, including any market testing undertaken		Y	Y Commentary is provided in section 5.13 of the Submission	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(f) description of how the payment for the service is reflected in the *price monitoring information returns*		N	N	Details of where costs for third party transactions appear in monitoring information are not provided. Requests for Information have been sent to clarify this.					
(g) a description of how shared costs have been allocated		N	Y 'Allocation' tab of QCA Information Requirement Template.	Nil	Nil	QUU have acknowledged that the allocation of costs across the business or asset categories could be refined.	QUU have acknowledged that the allocation of costs across the business or asset categories could be refined and will be improved in future submissions.	Nil	

Appendix B Allconnex Water detailed assessments

Appendix B1 Information register

Project: **QE09780**
SEQ Water and Wastewater Price Monitoring

Information Register

Reference	Date Rec'd	Rec'd from	Title	Version	Key, Confidential or Supporting	Format (Word, PDF, Excel)	Storage Location (Project file)	Description
Allconnex								
2.00	1/09/2010	Allconnex	QCA Information Requirements Templates_F NAL.xls		Key	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.01	1/09/2010	Allconnex	QCA Templates_F NAL confidential excised.xls		Key	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.02	1/09/2010	Allconnex	2010-11 Submission_proposed_Final2.pdf	Final2	Key	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.03	1/09/2010	Allconnex	Signed Board Members Responsibility Statement			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.04	1/09/2010	Allconnex	Signed Covering Letter			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.05	1/09/2010	Allconnex	Extract of Board Minutes			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.06	1/09/2010	Allconnex	1. Gold Coast City Council Financial Statements (Excel workbook)		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.07	1/09/2010	Allconnex	2. Gold Coast City Council – Audited Financial Statements 2008-09		Supp		I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.08	1/09/2010	Allconnex	2. GCfinancial-statements-auditors-report.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.09	1/09/2010	Allconnex	2. GCmanagement-certificate.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.10	1/09/2010	Allconnex	3. Logan City Council – Audited Financial Statements 2008-09 (see note 2 - Logan Water)		Supp		I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.11	1/09/2010	Allconnex	4. Redland City Council – Annual Report 2008-09		Supp		I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.12	1/09/2010 (Not received, available on request)	Allconnex	5. Enterprise Financial Model (excel-based forecasting model, which includes forecast statements for FY2010 onwards)		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.14	1/09/2010	Allconnex	7. GC Pricing final pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.15	1/09/2010	Allconnex	7. Logan Pricing final.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.16	1/09/2010	Allconnex	7. Redland Pricing final.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.17	1/09/2010	Allconnex	7b Developer Charges xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.18	1/09/2010	Allconnex	8. GCW Customer Service Standards - Mar 2010.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.19	1/09/2010	Allconnex	9. GCW DSOS Review 2008_final report_091029_Rev3.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.20	1/09/2010	Allconnex	10. GC 546 Water 25 November Adopted Report[1] pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.21	1/09/2010	Allconnex	11. GC PERFORMANCE PLAN 2009-2010 DOC		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.22	1/09/2010	Allconnex	12. GCW Strategic Asset Management Plan 2009.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.23	1/09/2010	Allconnex	13. Logan Customer Service Charter.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.24	1/09/2010	Allconnex	14. Logan_200910 - Performance Plan-v2.DOC		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.25	1/09/2010	Allconnex	15. Logan NWI Reporting 0809 XLS		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.26	1/09/2010	Allconnex	16. Logan SAMP_TMP		Supp		I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.27	1/09/2010	Allconnex	17. Redland SAMP 2008-2010.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.28	1/09/2010	Allconnex	18. Redland Water services standards docx		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.29	1/09/2010	Allconnex	19. GCW Capital Budget Guidelines-2010-11.doc		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.30	1/09/2010	Allconnex	20. 100520 RB Capex doc		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.31	1/09/2010	Allconnex	21. GC LAMP- Section Charter.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.32	1/09/2010	Allconnex	22. Logan QMS Capital Works -v5.DOC		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.33	1/09/2010	Allconnex	23. Logan Program Delivery Process Map Rev 1 0.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.34	1/09/2010	Allconnex	24. Lo_an Pro_ram Mana_ement Plan Rev 1.1[1] pdf		Supp	PDF	I:\QENV2\Pro_ects\QE09780\Incomin_ Information\Allconnex\20100901	
2.35	1/09/2010	Allconnex	25. Logan P and PD Management Plan Rev 1 0[1] pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.36	1/09/2010	Allconnex	26a GC priority_infrastructure_plan[1].pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.37	1/09/2010	Allconnex	26b GC priority infrastructure plan[2].pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.38	1/09/2010	Allconnex	26c GC priority infrastructure plan[3] pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.39	1/09/2010	Allconnex	27. Logan planningschemepolicyno7 pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.40	1/09/2010	Allconnex	28. Logan planningschemepolicyno5 pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.41	1/09/2010	Allconnex	31. Redland Planning scheme policy 3.pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.42	1/09/2010	Allconnex	32. 100708 CEG QLD water draft report pdf		Supp	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.43	1/09/2010	Allconnex	33. GCW Guidelines-2010-11 doc		Supp	Doc	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100901	
2.78	7/09/2010	Allconnex	RESEND 3 year submission capex program.xls		Key	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100907	This is the updated list of capex projects, with projects identified as either water or wastewater projects
2.79	8/09/2010	Allconnex	Operating Costs xlsx		Key	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100908	Provides a breakdown on the OPEX materials and service cost.
2.80	7/09/2010	Allconnex	Logan District Capex Prudency Review - Final Report pdf		Key	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100907	This is the Cardno Report, an independant assessment of capex projects within Allconnex, Logan District

2.81	7/09/2010	Allconnex	2010-11 Submission_Final v3.pdf		Key	PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100907	This is the updated submission with corrected diagrams 11.1 and 11.2.
2.82	10/09/2010	Allconnex	QCA submission presentation.ppt		Supporting	PPT	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100910	These are the slides from the initial Allconnex Water presentation to QCA.
2.83	16/09/2010	Allconnex	045_Cleveland WPCW upgrade planning report GHD 1998.pdf	Draft – unsigned		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Cleveland WWTP Upgrade planning report GHD. December 1998
2.84	16/09/2010	Allconnex	087_Cleveland Water pollution control works - Report on expansion of effluent irrigation area pdf	Draft pdf report		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Cleveland WWTP Water pollution control works report. May 2000
2.85	16/09/2010	Allconnex	327_Cleveland WPCW Upgrade Planning Report - GHD Feb99.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Cleveland WWTP Upgrade planning report GHD. Feb 1999
2.86	16/09/2010	Allconnex	335_Cleveland Water Pollution Control Works Supplementary Report-GHD Apr00.pdf	Rev 0		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Cleveland WWTP water pollution control works supplementary report GHD April 2000
2.87	16/09/2010	Allconnex	341_Cleveland WPCW Upgrade Report on Implications on Increased Load-GHD Apr99 pdf	Rev1		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Cleveland WWTP upgrade report on implications on increased load - GHD. April 1999
2.88	16/09/2010	Allconnex	Cost Estimate Rev E.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	
2.89	16/09/2010	Allconnex	Report Draft Rev 4.pdf	Preliminary		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Wastewater Treatment Strategy to 2025 (dated 2009). November 2009
2.90	16/09/2010	Allconnex	Point Lookout WPCW Capacity of existing plant			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Capacity of existing plant. 1999
2.91	16/09/2010	Allconnex	Point Lookout STP Interim Technical report			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Interim technical report. 2000
2.92	16/09/2010	Allconnex	Point Lookout Sewerage treatment plant planning report	DRAFT		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Sewerage treatment plant planning report. 2000
2.93	16/09/2010	Allconnex	Point Lookout STP Planning Report	Rev 2		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Planning report. 2000
2.94	16/09/2010	Allconnex	Point Lookout STP Planning Report	Rev 3		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Planning report. 2000
2.95	16/09/2010	Allconnex	Pt Lookout sewerage management project Stage 1			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Sewerage managment project Stage 1. 2002
2.96	16/09/2010	Allconnex	Pt Lookout sewerage management project Stage 2			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Sewerage managment project Stage 2. 2003
2.97	16/09/2010	Allconnex	Pt Lookout alternative sewerage scheme investigation report			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Alternative sewerage scheme investigation report. 2003
2.98	16/09/2010	Allconnex	176_Pt Lookout sewage management project stage 2 key holes- water contamination potential			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Sewage management project stage 2 - key holes.Water contamination potential. 2003
2.99	16/09/2010	Allconnex	179_Pt Lookout sewage management project stage 2 comparison of effluent irrigation options			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Sewage management project stage 2 - comparison of effluent irrigation options
2.100	16/09/2010	Allconnex	309_2004 TENDER REV EW AND MBR OPTION INVESTIGATION REPORT.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Tender review and MBR option investigation report. 2004
2.101	16/09/2010	Allconnex	310_Point Lookout WWTP Design and Construction Tender Documents.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Design and construction tender documents.
2.102	16/09/2010	Allconnex	311a_Point Lookout WWTP Environmental Management Plan - EMP pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Environmental management plan
2.103	16/09/2010	Allconnex	311b_Point Lookout WWTP Environmental Management Plan - EMP (Editable)			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Environmental management plan - editable
2.104	16/09/2010	Allconnex	312_RECYCLED WATER network Point Lookout Planning report			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Recycled water network Point Lookout planning report
2.105	16/09/2010	Allconnex	346_Point Lookout Wastewater Treatment Plant Planning Report-KRB			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Wastewater treatment plant planning report - KBR. March 2005
2.106	16/09/2010	Allconnex	ALLCONNEX_BOARD_REPORT_Pt Lookout Board Paper (Rev B)	Rev B		Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Allconnex Board report - Point Lookout Board Paper (Rev B)
2.107	16/09/2010	Allconnex	LOAD EST MATES PS171&172 xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout WWTP. Load estimates
2.108	16/09/2010	Allconnex	Point Lookout Sewerage Project doc			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point Lookout Sewerage project. Project delivery options
2.109	16/09/2010	Allconnex	Point_Lookout_Population_Study_Draft2.doc			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Project Lookout WWTP population study. Draft 2
2.110	16/09/2010	Allconnex	Program Gant Chart V1 pdf	V1		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Program Gant Chart V1
2.111	16/09/2010	Allconnex	Project Proposal Form - 63021 Pt Lookout WWTP Upgrade.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Redland City Council project proposal form for Point Lookout WWWTP
2.112	16/09/2010	Allconnex	Pt Lookout Plant Size Cost Estimates xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point lookout plant size costs
2.113	16/09/2010	Allconnex	Pt Lookout Plant Size Costs.doc			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Point lookout plant size cost estimates
2.114	16/09/2010	Allconnex	Pt Lookout Report Rev 1.1.pdf	Preliminary		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Allconnex - Point Lookout Sewerage Upgrade - Project review report. August 2010
2.115	16/09/2010	Allconnex	Report_Index.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 011 Point Lookout WWTP	Report index - asbestos, planning, costs
2.116	16/09/2010	Allconnex	402_ Preliminary Design of SPSs in Victoria Point (Sewerage Planning Report) - Oct 09 - Cardno pdf	V1		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 055 Pumpstation 61	Pump Station number 61. Preliminary design of SPS's in Victoria point - Sewerage planning report. 25 October 2009
2.117	16/09/2010	Allconnex	63083 Project Proposal Form - SPS 61 - 2010.xlsm			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 055 Pumpstation 61	Redland City Council project proposal form for SPS 61 . 2010. Signed in 2006
2.118	16/09/2010	Allconnex	ZMDP - Investigation Design Report.pdf	0		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 053 Guineas ck gravity & rising aug	Southern Relief Sewer - Stage 1. Gold Coast Water. Elanora Group 5 - Investigation Design Report by Worley Parsons. 16 June 2010
2.119	16/09/2010	Allconnex	ZMDP - PIF - Elanora Group # 5 V0.2.doc	0 2		Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 053 Guineas ck gravity & rising aug	Project Initiation form. 2009-2013 Elanora Catchment Wastewater Projects: Group 5
2.120	16/09/2010	Allconnex	6763045-PIF - Slacks Creek Trunk Sewer Extension - Gravity Main-v2 DOC			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 007 Slacks Crk	Project Initiation form. Slacks Creek Trunk Sewer Extension – Gravity Main. 3/09/10
2.121	16/09/2010	Allconnex	6765012-PIF Appendix A Slacks Creek Trunk Sewer Extension Map-v1.PDF			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 007 Slacks Crk	Map of Slacks Creek Trunk Sewer extension
2.122	16/09/2010	Allconnex	LCC_DOCS-#4500232-v1-Macro_Sewer_Hydraulic_Model_Assessment_-_ET_2008 pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 007 Slacks Crk	Macro sewer hydraulic model assessment for Logan Water to see if the model is suitable for use as a planning tool. February 2008
2.123	16/09/2010	Allconnex	LCC_DOCS-#6703660-v1-90-10-48_-_Logan_North_Wastewater_Strategy_Report_-_Final_with_Appendices pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 007 Slacks Crk	Logan North (LN) Wastewater strategy report, incestigating alternative wastewater conveyance strategies for LN. May 2010
2.124	16/09/2010	Allconnex	20100907 Developed Areas Budget breakdown.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas	Total Capital/Operational and Maintenance costs for Tooraneedin, Jacobs Well, Calypso Bay and Steiglitz. 07/09/2010
2.125	16/09/2010	Allconnex	522 Water 13 May 2009 - Refer tem 2 of Adopted Report.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Council Decisions	Meeting minutes

2.126	16/09/2010	Allconnex	CDM 314 12-Mar-2004 adoption of PCWFMP.doc			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Council Decisions	Meeting minutes
2.127	16/09/2010	Allconnex	CM960716 - Adoption of NWS DOC			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Council Decisions	Meeting minutes
2.128	16/09/2010	Allconnex	Northern Wastewater Strategy Volume 1.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	A wastewater strategy for the Northern region of the City of Gold Coast - Volume 1 Report. 19 April 1996
2.129	16/09/2010	Allconnex	Northern Wastewater Strategy Volume 2 Appendices.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	A wastewater strategy for the Northern region of the City of Gold Coast - Volume 2 Appendicies. 19 April 1997
2.130	16/09/2010	Allconnex	OWTS EA Report v29 Final Report to GCW pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	Environmental assessment of on-site wastewater treatment systems in Northern Gold Coast. November 2009
2.131	16/09/2010	Allconnex	OWTS Implications Report v15 Final Report to GCW.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	Implications of on-site wastewater treatment systems in Northern Gold Coast. November 2009
2.132	16/09/2010	Allconnex	PCWF Master Plan pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	Pimpama Coomera waterfuture master plan. March 2004
2.133	16/09/2010	Allconnex	PCWF Servicing Developed Areas Planning Report Nov_09 pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	
2.134	16/09/2010	Allconnex	PI Augmentation 2011 Map1.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	Pimpama water supply financial catchment Coomera-Pimpama water supply district augmentation to service 2011 demand. Map. Sheet 1 of 2.
2.135	16/09/2010	Allconnex	PI Augmentation 2016 Map1.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	Pimpama water supply financial catchment Coomera-Pimpama water supply district augmentation to service 2016 demand. Map. Sheet 1 of 2.
2.136	16/09/2010	Allconnex	PIP Potable Water12July07.doc	V02		Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 006 PCWF Water Developed Areas\Planning Reports	Priority infrastructure plan. Pimpama water supply financial catchment planning report. December 2006
2.137	16/09/2010	Allconnex	FF_Report_Rev1.pdf	Rev 1		PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 012 Retic Backflow Fire flow augmentation	Redland Water - Water supply System Fire Flow Review. July 2009
2.138	16/09/2010	Allconnex	62029 Fireflow project brief.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 012 Retic Backflow Fire flow augmentation	This is a blank template.
2.139	16/09/2010	Allconnex	LCC_DOCS-#6434865-v1-Details_of_2010-11_Water_Reticulationâ€¦.pdf			PDF	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 052 Provision Retic main replacement	Details of the 25 2010-11 water reticulation main renewal projects
2.140	16/09/2010	Allconnex	6723950-project initiation form - water reticulation main renewals-v1.DOC			Word	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100916\RFI 052 Provision Retic main replacement	Allconnex water. Water Reticulation Main Renewals project initiation form.
2.141	21/09/2010	Allconnex	DD Workshops Report - Finance v2.DOC					
2.142	21/09/2010	Allconnex	Final Report 1.4.14 Capex Plan Review - WB3.pdf					
2.143	21/09/2010	Allconnex	Final Report 1.4.15 Opex Plan Review WB3.pdf					
2.144	21/09/2010	Allconnex	Cardno Report on Roof - ltr.pdf					
2.145	21/09/2010	Allconnex	Roof repair inlet building.doc					
2.146	21/09/2010	Allconnex	6785787 - Miscellaneous Capital Items (20102011)-v1.XLS			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	
2.147	21/09/2010	Allconnex	Gold Coast FAR.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	
2.148	21/09/2010	Allconnex	LCC FAR Land Buildings Plant.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	
2.149	21/09/2010	Allconnex	Logan FAR Facilities.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	
2.150	21/09/2010	Allconnex	Logan FAR Infrastructure.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	
2.151	21/09/2010	Allconnex	Logan FAR Water Services.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	
2.152	21/09/2010	Allconnex	Redland FAR.xls			Excel	I:\QENV2\Projects\QE09780\Incoming Information\Allconnex\20100921	

Appendix B2 Adequacy of information for Capital Expenditure

Entity: Allconnex Water

Assets:

- Merrimac West WW Stage 2
- Potable Water Network – Developed Areas
- Slacks Creek Trunk Sewer Upgrade
- Southern Relief Sewer – Stage 1
- Point Lookout WWTP
- Retic – Backlog fire flow augmentation
- Cleveland WWTP
- Provision for AC Reticulation Main Replacement
- Guineas CK Rd Gravity & Rising main augmentation
- Treatment Plant Future Misc Cap Items Estimate
- Pump Station Number 61

Asset description: Merrimac West WW Stage 2

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Merrimac West WW Stage 2	RFI 004	MW Currie&Brown Cost Review Report Final.pdf	April 09	PDF	Not Covered	Currie&Brown investigated the costs for three options. Costs range from $1.6miliion to $3.9 million for tunnelling. Generally the rates used by GCCC were found to be low, in the case of tunnelling by approximately 50%.	Not Covered	
		542nd Council Meeting 2 November 2009	November 2009	PDF	Not Covered	Not Covered	Not Covered	Alliance Partners were selected through a vigorous approach which involved: Evaluation Workshops Financial Audit Commercial Evaluation
		Agenda for the Water Management Committee Meeting	April 2009	PDF	Not Covered	Not Covered	The Merrimac West Wastewater Catchment spans from Nerang in the north-west, Gilston in the west to Mudgeeraba in the south and includes parts of the suburbs of Merrimac and Carrara. Population in the catchment is estimated to grow from a current 17,000 ET to approximately 32,000 ET in 2056 – an increase of 88%.	
		Merrimac West Sewerage Catchment Master Plan	2008	PDF, Version Final	The 2008 Master Plan recommends wastewater network upgrades to meet Council's Desired Standards of Service and is based upon similar philosophies as used for the Merrimac East catchment upgrade, namely rationalisation and optimisation of wastewater infrastructure augmentations to provide more sustainable	The Master Plan recommends that the network augmentation be based upon construction of a new major trunk collection system generally along a corridor comprising Nielsens Road, Spencer Road, across the Pacific Motorway to the Nerang Fair Shopping Centre and then up the Nerang River Valley. This collection system feeds to a major regional pump station at the south east extremity of Boonaroo Park for	110,500,000 Design and Construction March 2010 – December 2011	The Master Plan was subsequently revised by the BMP Alliance in September 2008 to include the 2006 works and outline the proposed 2011 strategy to reflect outcomes of the review. GCW has a standard methodology it utilises to determine the optimum procurement strategies for delivery of major projects under ts Capital Works Program. The

Entity: Allconnex Water

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
					solutions including the phasing out of existing pump stations where feasible.	where it is pumped to the Merrimac WWTP. The revised Master Plan Report recommends a gravity sewer constructed using a tunnel boring machine for the large diameter sections of the major trunk collection system betweenthe regional pump station and the Nerang Fair Shopping Centre. However, given that there is more risk and hence uncertainty about the final cost of this type of work than for more conventional methods, it is proposed that resolution of the optimum configuration of infrastructure for this section of works should be developed with the assistance of a constructor as part of the delivery process. In general terms the scope of works involved in the project comprises the following: □ 5500m of nominal 1200mm gravity sewer or a combination of gravity sewers, pump station and rising mains □ One or two regional pump stations depending on the above configuration □ 700m of 900mm gravity sewer □ 1200m of 600mm gravity sewer □ 2000m of 750mm rising main □ Decommissioning of 30 existing pump stations and construction of 150 to 525mm bypass sewers □ Odour control, and □ Easement acquisitions with the number depending upon final alignments selected		process utilises a structured objectives based decision making tool (the 3DM Model) to assist in the selection of the best-fit delivery method for a particular project so as to maximise the probability of achieving best-value-for-money outcomes.
		Merrimac West Sewerage Catchment Master Plan	December 2004	PDF, Version Final	Standards Adopted from ICP Planning	$78.8 million	Project required for: □ Insufficient capacity of existing system □ Long detention times and associated odour complaints □ Age of existing infrastructure □ Anticipated development and growth projections □ Stakeholder expectations □ Insufficient capacity of existing system □ Long detention times and	This 2004 Master Plan outlined a program of interim works that was undertaken by the Beenleigh Merrimac Pimpama (BMP) Alliance in 2006 to allow the existing system to cope with loads to 2011, when it was recommended the major optimisation works would be undertaken. (Refer Council Minute No. WS05.0901.012).

Entity: Allconnex Water

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
							associated odour complaints □ Age of existing infrastructure □ Anticipated development and growth projections □ Stakeholder expectations	

Asset description: Potable Water Network – Developed Areas

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of file	Date	Rev and Type				
Potable Water Network – Developed Areas	RFI 006	20100907 Developed Areas Budget breakdown.xls	07/09/2010			Total/Capital/Operational and Maintenance costs for Tooraneedin, Jacobs Well, Calypso Bay and Steiglitz.		
		522 Water 13 May 2009 - Refer Item 2 of Adopted Report.pdf	18 May 2010	Meeting minutes				Council decision
		CDM 314 12-Mar-2004 adoption of PCWFMP.doc	1 March 2004	Meeting minutes				
		CM960716 - Adoption of NWS.DOC		Meeting minutes				
		Northern Wastewater Strategy Volume 1.pdf	19 April 1996					Planning report
		Northern Wastewater Strategy Volume 2 Appendices.pdf	19 April 1996					Planning report
		OWTS EA Report v29 Final Report to GCW.pdf	November 2009					Planning report. Report on the effect of onsite water treatment on the environment
		OWTS Implications Report v15 Final Report to GCW.pdf	November 2009					Planning report Implications of onsite water treatment report
		PCWF Master Plan.pdf	March 2004					Planning report
		PCWF Servicing Developed Areas Planning Report Nov_09.pdf	November 2009					Planning report
		PI Augmentation 2011 Map1.pdf						Planning report
		PI Augmentation 2016 Map1.pdf						Planning report
		PIP Potable Water12July07.doc	December 2006		The Desired Standards of Service are defined in this document.			Planning report

Entity: Allconnex Water

Asset description: Slacks Creek Trunk Sewer Upgrade

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Slacks Creek Trunk Sewer Upgrade	RFI 007	6763045-PIF - Slacks Creek Trunk Sewer Extension - Gravity Main-v2.DOC	3/09/2010	2.0	The project initiation form identifies the objective to comply with the desired standards of service though does not mention what they are.	A general scope and cost estimate is provided in this submission though	Growth	
		6765012-PIF Appendix A Slacks Creek Trunk Sewer Extension Map-v1.PDF						
		LCC_DOCS-#4500232-v1-Macro_Sewer_Hydraulic_Model_Assessment_-_ET_2008.pdf	1/04/2008	Rev 3, Final				
		LCC_DOCS-#6703660-v1-90-10-48_-_Logan_North_Wastewater_Strategy_Report_-_Final_with_Appendices.pdf	15/06/2010	Rev 06, Final	The desired standards of service are indentified in section 3			

Asset description: Southern Relief Sewer – Stage 1

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Southern Relief Sewer – Stage 1	RFI 008	LCC_DOCS-#6703660-v1-90-10-48_-_Logan_North_Wastewater_Strategy_Report_-_Final_with_Appendices.pdf	May 2010	PDF	The document contains the Desired Standards of Service and states work that must be done to meet them,	A summary of the proposed works have been identified in this report though the associated costs are not clearly defined.	This project is identified as requiring augmentation as the existing assets do not meet the future flow demands.	

Entity: Allconnex Water

Asset description: Point Lookout WWTP

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Point Lookout WWTP	RFI 011	Point Lookout WPCW Capacity of existing plant	1999	PDF	A discharge license has been negotiated for the new WWTP site. Standard of Work – the standards of work conforms with GCW standard specifications, are detailed in GCW Strategic Asset Management Plan (SAMP) and outlined in GCW Water and Wastewater Priority Infrastructure Plan (PIP). Ref: ALLCONNEX BOARD REPORT Pt Lookout Board Paper (Rev B)	Costs of the capital expenditure projects provided as a table in the Board Paper report. Supporting documents provided: - Point Lookout WWTP Planning Report - Point Lookout WWTP Design and Construction Tender Documents - Point Lookout Environmental management plan.	Growth – upgrade of the plant is required due to increased population growth in the catchment area Renewals – the project converts existing infrastructure to ensure existing desired standards of service are maintained. Compliance – plant is currently theoretically overloaded from a mass load perspective. Upgrade is required to avoid licence excursions under wet weather conditions. Ref: ALLCONNEX BOARD REPORT Pt Lookout Board Paper (Rev B)	Noted that the service standards as submitted by Allconnex do not include any on effluent discharge.
		Point Lookout STP Interim Technical report	2000	PDF				
		Point Lookout Sewerage treatment plant planning report	2000	Draft, PDF				
		Point Lookout STP Planning Report	2000	Rev 2, PDF				
		Point Lookout STP Planning Report	2000	Rev3, PDF				
		Pt Lookout sewerage management project Stage 1	2002	PDF				
		Pt Lookout sewerage management project Stage 2	2003	PDF				
		Pt Lookout alternative sewerage scheme investigation report	2003	PDF				
		176_Pt Lookout sewage management project stage 2 key holes- water contamination potential	2003	PDF				
		179_Pt Lookout sewage management project stage 2 comparison of effluent irrigation options		PDF				
		309_2004 TENDER REVIEW AND MBR OPTION INVESTIGATION REPORT.pdf	2004	PDF				
		310_Point Lookout WWTP Design and Construction Tender Documents.pdf		PDF				
		311a_Point Lookout WWTP Environmental Management Plan - EMP.pdf		PDF				
		311b_Point Lookout WWTP Environmental Management Plan - EMP (Editable)		DOC				
		312_RECYCLED WATER network Point Lookout Planning report		PDF				
		346_Point Lookout Wastewater Treatment Plant Planning Report-KRB	March 2005	PDF				
		ALLCONNEX_BOARD_REPORT_Pt Lookout Board Paper (Rev B)		DOC				
		LOAD ESTIMATES PS171&172.xls		XLS				
		Point Lookout Sewerage Project.doc		DOC				
		Point_Lookout_Population_Study_Draft2.doc		DOC				
		Program Gant Chart V1.pdf		PDF				
		Project Proposal Form - 63021 Pt Lookout WWTP Upgrade.xls		XLS				
		Pt Lookout Plant Size Cost Estimates.xls		XLS				
		Pt Lookout Plant Size Costs.doc		DOC				
		Pt Lookout Report Rev 1.1.pdf		PDF				
		Report_Index.xls		XLS				

Entity: Allconnex Water

Asset description: Retic – Backlog fire flow augmentation

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of file	Date	Rev and Type				
Retic – Backlog fire flow augmentation	RFI 012	FF_Report_Rev1.pdf	July 2009	Rev 1	The standard of fire service is identified in section 2	This document analyses and has identified significant fire flow deficiencies in the network. It identifies the remedial action required and the associated cost	Compliance to standard of service	
		62029 Fireflow project brief.xls						Blank template

Asset description: Cleveland WWTP

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of file	Date	Rev and Type				
Cleveland WWTP	RFI 013	*045_Cleveland WPCW upgrade planning report GHD 1998.pdf* *Draft – unsigned*	*December 1998*	*Draft pdf report*	*New oxidation ditch ~$9M* *Growth and nutrient removal (quality) are main drivers* *Document not relevant – this upgrade was completed in 2002*			
		087_Cleveland Water pollution control works - Report on expansion of effluent irrigation area.pdf	*May 2000*	*Draft pdf report*	*Expansion of irrigation areas* *Not costed* *Document not relevant – this upgrade was completed in 2002 along with plant upgrade*			
		327_Cleveland WPCW Upgrade Planning Report - GHD Feb99.pdf	*Feb 1999*	*Pdf report*	*New oxidation ditch ~$10.4M* *Growth and nutrient removal (quality) are main drivers* *Document not relevant – this upgrade was completed in 2002*			
		335_Cleveland Water Pollution Control Works Supplementary Report-GHD Apr00.pdf	*April 2000*	*Rev 0 Pdf report*	*New oxidation ditch & irrigation area ~$13M* *Growth and nutrient removal (quality) are main drivers* *Document not relevant – this upgrade was completed in 2002*			
		341_Cleveland WPCW Upgrade Report on Implications on Increased Load-GHD Apr99.pdf Rev1	April 1999	Rev 1 pdf report		Balance tank, inlet works expansion, GDD, pump upgrade, Convert An digesters to Ae ~$3.6M	Growth. Report has technical focus on impacts on process capacity and performance	Review of capacity of 'new' BNR plant to treat future loads to 2025.
		Cost Estimate Rev E.xls	December 2009	Excel spreadsheets		Recycled water filter, balance tank, inlet works odour control, bigger BFP, some repairs, access road etc. $7.1M – see document below for detail.	Growth / Quality / Renewals split	Direct costs from Report Draft Rev 4 revised up to ~$3.5M then significant on-costs and 25% contingency added. Just build-up to numbers, no supporting info. Source of rates etc. Big difference in direct cost from November 2009 report. Some concerns re rates and applicability of oncost multipliers to be resolved.

Entity: Allconnex Water

		Report Draft Rev 4.pdf Wastewater Treatment Strategy to 2025 (dated 2009)	November 2009	Preliminary pdf report	Mentions need to obtain revised Dry Weather Flow consent now as already at risk of ecceded.	Recycled water filter, balance tank, inlet works odour control, , some repairs, access road etc.$1.4M 'Priority 1' works, Bigger BFP $0.7M 'Priority 2' works	Growth (current 32k PE, capacity 38k PE, 2025 47k PE)/ Quality (improved recycled water) / Renewals (inlet screen repairs). However suggests plant could take 2025 loadings with internal modifications. Recycled water filter, balance tank, inlet works odour control, bigger BFP, some repairs, access road etc.	Insufficient information to test the reasonableness of the cost against the recommended works. Particularly re balance tank.

Asset description: Provision for AC Reticulation Main Replacement

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of file	Date	Rev and Type				
Provision for AC Reticulation Main Replacement	RFI 052	LCC_DOCS-#6434865-v1-Details_of_2010-11_Water_Reticulationâ€¦.pdf			The failure rate of each of the 25 assets has been identified in this report.	The report identifies the type and length of pipe to be replaced as well as the estimated replacement cost.	Improvement	
		6723950-project initiation form - water reticulation main renewals-v1.DOC				A brief scope and cost estimates have been identified in this project initiation form.		

Asset description: Guineas CK Rd Gravity & Rising main augmentation

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of file	Date	Rev and Type				
Guineas CK Rd Gravity & Rising main augmentation	RFI 053	ZMDP - Investigation Design Report.pdf	16June 2010			More detailed scope and costs are identified in this investigation design report.		
		ZMDP - PIF - Elanora Group # 5 V0.2.doc			There are currently a number of spills occurring at this site.	There is a broad scope for the project identified in this document.		

Entity: Allconnex Water

Asset description: Treatment Plant Future Misc Cap Items Estimate

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Treatment Plant Future Misc Cap Items Estimate	RFI 54	Cardno Report on Roof	Sept 2010	Letter, PDF	Lack of information at the moment. Not commented or discussed in any of the documents.	Lack of information. Lack of details in contingency, and how the quote of $80k becomes $150k. Quote from Xtreme Protection Coatings is for the roof, but there is lacking information for the quote for the building façade?	Renewal	It is difficult to comment on the standards of service for this capital work – renewal of LWPCC Inlet Building Façade and Roof Repairs. Noted that the quote is for the propose works to be undertaken for the roof.
		6785787-Miscellaneous Capital items(20102011)-v1	2010	XLS				
		Roof Repair Inlet Building Price Quote from Xtreme Protective Coatings	2010	Letter, DOC				

Asset description: Pump Station Number 61

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Pump Station Number 61	RFI 55	402_ Preliminary Design of SPSs in Victoria Point (Sewerage Planning Report)	October 2009	PDF	Standards of service are summarised in Table 2 of the submitted document. *(Whether or not the standards used are approved not known)* Ref: Preliminary design of SPSs at Victoria Point.	Unit costs assumptions provided within the report. Summary of the works to 2013 that will require to be prioritised are included in Table 7-2. *(The document provided provides description of the SPSs for Victoria Point Catchment, no specific details on the scope of work proposed / planned for SPS Number 61.)*	This project is identified as requiring augmentation in order to meet the required design requirements. This PS No. 61 is one of the SPS requiring augmentation for Victoria Point Catchment	No board paper for this project provided. Noted that the standards of service are more like design criteria. And the service standards as submitted by Allconnex do not include any standards relating to SPSs requirements. Noted that the information submitted by Allconnex provides description on the SPS for Victoria Point Catchment that requires renewal / upgrade / augmentation.
		63083 Project Proposal Form – SPS 61	2010	XLS				

Appendix B3 Prudency and Efficiency of Capital Expenditure Projects

Appendix B3

B.3.1 Capital projects considered efficient and prudent

The following projects are considered to be prudent and efficient for the 2010/11 financial year:

- Merrimac West Stage 2 WW Network Augmentation
- Potable water network – developed area
- Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
- Point Lookout WWTP
- Reticulation – Backlog fire flow augmentation
- Cleveland WWTP
- Provision for AC Reticulation Main Replacement
- Guineas CK Rd Gravity & Rising Main Augmentation
- Treatment Plant Future Misc Cap items Estimate
- Pump Station No. 61

	Merrimac West Stage 2 WW Network Augmentation			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$78,750,000	$159,311,000	$579,000	$238,640,000
	Source: 2010/11 Four Year Capital Budget for Merrimac West Wastewater Network Augmentation Stage 2.			
Project Description	To upgrade the current wastewater infrastructure within the Merrimac West catchment to accommodate the proposed level of required service for future growth. The upgrade is justified through the following factors: • Current lack of capacity of existing system for additional loading. • Long detention times and associated odour complaints. • Age of existing infrastructure. • Anticipated development and growth projections based on philosophies introduced by relevant documentation including the Master Plan and relevant IDM data. Parts of the current system have reached capacity under current loading, while other reaches of the system, while yet to reach capacity, will not perform to the desired level of service given future predictions of loading for the catchment. Many components throughout the system are reaching the end of their useful asset life including mechanical equipment in major pump stations, while the current system practices promote the production of odorous gases.			
Initial Information Provided	• Scope of works and prepared options for proposed upgrade. • Merrimac West Original master plan (2004) and updated version (2008) including summary of works undertaken in 2006 and updated 2011 strategy. • Project Requirements brief as derived by the Gold Coast Water Strategic Plan			

	Merrimac West Stage 2 WW Network Augmentation
	• Currie and Brown Estimation Review Report detailing the three proposed options.
Initial Data Gaps and Requested Information	RFI 104 was sent to request clarifications to: • Confirmation of recommended Option for the project. • Approvals from council on items such as TOC and Preferred Option including any further documentation available. • Confirmation of current projects schedule i.e. is the project still on track.
Additional Information Provided	Response to RFI 104 included: • Confirmation of Gravity option as Preferred Option with variation of 5500m of nominal 1200mm gravity sewer replaced by 4500m of nominal 1500mm gravity sewer. • The TOC and preferred option did not go to Council. This will now be an Allconnex Water board decision. The TOC is currently being finalised. No further documentation is available to be released at this stage. • Project currently behind schedule however construction is still anticipated to start before the end of the year.
Category Applied	Renewals 100%. Assessed to include Growth.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Given the regions projected population growth, work involving the upgrading of existing infrastructure is required. As a number of elements of the existing system are currently at capacity, sufficient information has also been provided to support, an immediate start to work.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to the use of appropriate processes based on the information provided. This project has been initiated by Gold Coast Water prior to the transition. The procedures used are consistent with the procedures adopted by Allconnex Water Gold Coast District. Documentation includes a Master Plan, produced initially in 2004 and amended in 2008. These documents outline various policies and targets for the Merrimac West catchment and the philosophy of system optimisation and rationalisation rather than traditional wastewater planning. This project is included within the Priority Infrastructure Plan of Merrimac Catchment produced by Gold Coast Water and adopted by Allconnex Water Gold Coast District. This document identifies population growth and the required capacity of required for wastewater infrastructure and supports the need for the upgrade.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The scope of works is to upgrade the existing sewer system for the Merrimac catchment in line with ideals and previous philosophies outlined within the Master Plan. The capacity of the existing system in parts has already been reached with various elements a reaching the end of its useful asset life and will require augmentations to various sections of the system to operate within the desired range. A number of options have been considered and reviewed during the development of the scope, including the production of an independent cost assessment. The preferred option is currently a gravity mains sewer system which has a reduced

	Merrimac West Stage 2 WW Network Augmentation			
	detention time to that of the current rising main system. With gravity sewer systems being a preferred infrastructure solution (where technically feasible) the current scope of works can be considered appropriate.			
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The Merrimac Catchment scope of works is in line with future IDM's and reports including the Master Plan (2004) and updated Master Plan of 2008. The preferred option of a gravity sewer is designed in accordance with the Allconnex Water Gold Coast District desired standards of service of ADWF of 825L/ET/d. This includes a desired standard of 5 x ADWF for peak wet weather flow. The implementation of Reduced Infiltration Gravity Sewers (RIGS) should be considered. This will result in the design standard of 4 x ADWF for peak wet weather flow. The construction of a strategic gravity sewer line facilitates the decommissioning of adjacent pump stations. This reduction in pump stations means lower energy consumption, reduced risk of sewage spillages and the reduced odours and greenhouse gas emissions. This various benefits to the system are in line with the Master Plan in reducing emissions and protecting the local waterways.			
Efficiency – Market Conditions	The project costs appear to be not unreasonable. An independent cost estimation was undertaken by Currie and Brown, on the three proposed options for the upgrade. The conclusions of this report were that the costs for the preferred gravity option appeared low. Following this report, the scope of works has since been updated with 5500m of nominal 1200mm gravity sewer replaced by 4500m of nominal 1500mm gravity sewer. SKM has undertaken a high level cost review of the works. Given the intricacies of the network including the large number of pump stations to be decommissioned and subsequent bypass sewers to be installed, a complete cost review of each item was not feasible within the project timeframes. Based on a review of the rates and itemised costs of items and works such as gravity sewers, rising mains and the new regional pump station to be delivered, the costs appear to be of the correct order of magnitude. The combination of SKM's high level review and a detailed independent review, result in the conclusion that the capital costs appear to be efficient.			
Deliverability and Timing	Given certain elements of the existing system are currently at capacity, sufficient information has also been provided to support an immediate start to work. Construction is scheduled to begin before the year ends, however SKM has been advised that the project is currently behind schedule. The impact of this delay on the budget cannot be determined. It is recommended that the budget for future years is reviewed during the next assessment to account for any carryover of capital works. The TOC has yet to be agreed by the Allconnex board. Until there is agreement on the proposed delivery method, there is uncertainty. The alliance delivery method has a related impact on the quantum and timing of expenditure.			
Recommendations	Based on the above, the capital expenditure for this program of works for 2010/11 appears prudent and efficient; however the expenditure in years 2011/12 and 2012/13 require further review.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$78,750,000	Requires further review	Requires further review	Requires further review

	Potable water network – developed areas			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$4,725,000	$9,812,000	$5,209,000	$19,746,000
	Source: RESEND 3 year submission capital expenditure program			
Project Description	The Pimpama Coomera Waterfuture Master Plan was approved by Council in 2004. The recommendations of the Master Plan included the implementation of dual reticulation and wastewater infrastructure to new developments, and where appropriate, to existing developments. The existing development areas in the region that need to be considered under this recommendation are Tooraneedin, Jacobs Well, Calypso Bay, Steiglitz, and Cabbage Tree Point Tooraneedin potable water infrastructure: Pipes — 2,005 m of DN150 PE; 879 m of DN200 DI Jacobs Well potable water infrastructure: Pipes — 8,647 m of DN150 PE; 1,798 m of DN200 DI Pump Station — 129L/s @ 40m head 2.6 ML Reservoir Rechlorination plant Steiglitz potable water infrastructure: Pipes — 3,381 m of DN150 PE; 7,326 m of DN250 DI Pump Station — 96L/s @ 40m head 2.0 ML Reservoir Rechlorination plant			
Initial Information Provided	Nil			
Initial Data Gaps and Requested Information	RFI006 drivers: Confirmation of Standards of service adopted for the project, Project (e.g. compliance, growth, renewal or improvements), Supporting project justification including feasibility studies, cost estimates and independent reviews. RFI101: Clarification of the scope, program and costs.			
Additional Information Provided	A number of documents were provided in response to RFI006. They included a number of planning reports and council meeting minutes containing decisions made. Clarification of the scope, program and costs was provided on 29/09/2010			
Category Applied	Growth 100%, assessed as predominately growth.			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be predominately prudent with respect to demonstrated need based on the information provided. Reports provided have identified that construction of these assets will meet the desired standards of service for potable water supply to the predicted growth in the Tooraneedin, Jacobs Well and Steiglitz areas.			
Prudency (are there appropriate policies and	This project generally appears to be prudent with respect to appropriate processes based on the information provided.			

	Potable water network – developed areas
processes in place?)	Planning reports contained options assessments, including cost assessments. A number of council meetings have been held to address this project, the most recent information available were the minutes of the 522nd Council Meeting 18 May 2009, where approval was given to commence community engagement and capital allocations were to be included in the Draft 2009/10 to 2012/13 Four Year Capital Works Program.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The broad scope of works for this project is to address the growth in the Tooraneedin, Jacobs Well and Steiglitz areas. Due to the nature of growth new infrastructure is required.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The *PCWF – Development of Options for Service Delivery Impacting on Pimpama Coomera* implies that infrastructure has been sized to deliver peak hour flows and fire flow while maintaining service pressure to customers as outlined in GCW's desired standards of service, which have been adopted by Allconnex Water Gold Coast District.
Efficiency – Market Conditions	The project costs appear to be reasonable. The potable water network in these developed areas appears to be of the right order of magnitude for the lengths, diameters and additional infrastructure to be provided in this project. Based on a comparison of the average unit rates used within *PCWF – Development of Options for Service Delivery Impacting on Pimpama Coomera,* with a range of unit rates from similar water utilities, the rates are within +/- 20% and are considered to be reasonable.
Deliverability and Timing	There is insufficient information to make a judgement on the deliverability and timing of this project.
Recommendations	Based on the above, the capital expenditure for this program of works for the three years commencing 2010/11 appears prudent and efficient.
Revised Capital Expenditure Value	Not Applicable

	Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1			
Capital Expenditure Value	Chetwynd St Upgrade			
	2010/11	2011/12	2012/13	Total
	$2,100,000	$16,538,000	$9,261,000	$27,899,000
	Source: RESEND 3 year submission capital expenditure program			
	Southern Relief Sewer Stage 1			
	2010/11	2011/12	2012/13	Total
	$5,250,000	$16,538,000	$5,788,000	$27,576,000
	Source: RESEND 3 year submission capital expenditure program			
	Total $55,475,000			
	Above replaced by			

	Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
	Total Slacks Creek Project and other smaller projects
	2010/11 | 2011/12 | 2012/13 | Total
	- | - | - | $61,001,090
	Source: Response to RFI 100.
	Slacks Creek Trunk Sewer Extension- Rising Main Stage 1
	2010/11 | 2011/12 | 2012/13 | Total
	$2,000,000 | $22,000,000 | $7,000,000 | $31,000,000
	Source: Logan North Wastewater Strategy report.
Project Description	In response to RFI's Allconnex advised that the Chetwynd St Upgrade and Southern Relief Sewer Stage 1 had been replaced by the 'Slacks Creek Project and other smaller projects'. It is understood that the main the main components of this 'Slacks Creek Project and other smaller projects' are: Loganlea Park Diversion Gravity sewers $21.8 M Loganlea Park Diversion Rising Mains $30.2 M Loganlea Park Stage 1 New Pump Station $7.0 M Plains Pump Station Rising Mains $32.2 M The project assessed is the Slacks Creek Trunk Sewer Extension- Rising Main Stage 1 which is assumed to be the same as the Loganlea Park Diversion Rising Mains. This project involves the provision of a new wastewater rising between Loganlea (future SPS) and Loganholme Water Pollution Control Centre (WPCC). Length 5000m diameter 1350mm.
Initial Information Provided	Nil
Initial Data Gaps and Requested Information	RFI 007 Confirmation of Standards of service adopted for the project, Project drivers (e.g. compliance, growth, renewal or improvements), supporting project justification including feasibility studies, cost estimates and independent reviews. RFI 008 Confirmation of Standards of service adopted for the project, Project drivers (e.g. compliance, growth, renewal or improvements), supporting project justification including feasibility studies, cost estimates and independent reviews.
Additional Information Provided	The following report was submitted to as part of the review process: • Review of Prudency of Capital Expenditure by Cardno, September 2010. The following information was supplied in response to RFI007. • Project Initiation form - Slacks Creek Trunk Sewer Extension – Gravity Main v2 • Logan North Wastewater strategy report – Final with appendices. • Slacks creek trunk sewer extension map v1 (Appendix A) • Macro sewer hydraulic model assessment (2008)

	Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1
	The following information was supplied in response to RFI008: • Logan North Wastewater strategy report – Final with appendices.
Category Applied	Growth (100%) Assessed as growth and compliance.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Benefits of this project proceeding are identified below: • Ensuring compliance with legislation, e.g. environmental drivers – EP Act. • Significant reduction to the incidence of wastewater overflow events. • Providing wastewater conveyance capacity ahead of growth. • Reduction in operational costs for conveyance of wastewater between Slacks Creek and Loganholme WPCC. • Provision of redundancy in Logan District's major trunk wastewater conveyance mains between Alfred Street and Loganholme WPCC. Reduced risk of wastewater spills to the environment. A number of impacts if the project is delayed or terminated are identified below: • Potential for prosecution under the EP Act – non compliance with General Environmental Duty – as delay increases it will become increasingly difficult to demonstrate Due Diligence. • Increase incidence of wastewater overflows at Alfred Street WWPS and Chetwynd Street Overflow. • Inability to provide for predicted growth in the Logan North catchment. • Impact to Allconnex Water reputation. • Erosion of public / shareholder confidence in Allconnex Water.
Prudency (are there appropriate policies and processes in place?)	This project generally appears to be prudent with respect to appropriate processes based on the information provided. The information above has been derived from a strategy report which included a value management process.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. This project appears to meet the desired outcomes addressing the growth of the area.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. This appears to meet the desired standards of service as per section 3 of the Logan North Wastewater Strategy Report, which have been adopted by Allconnex Water Logan District.
Efficiency – Market Conditions	Based the broad scope above and past experience these costs appear to be higher than expected and may be delivered more efficiently. Information was not available to assess the reasons for higher than normal commercial levels. It is noted that the works are being completed as part of the Logan Water Alliance.
Deliverability and	The detailed program of works was not provided, though it does appear that the projects

	Chetwynd St Upgrade, Southern Relief Sewer Stage 1, the Slacks Creek Project and the Slacks Creek Trunk Sewer Extension – RM Stage 1			
Timing	are in the early stages of planning. The Logan North Wastewater Strategy (May 2010) recommends that "In combination with the business case development, an optioneering study should be undertaken to investigate in more detail the configuration and staging of the preferred strategy, as well as potential short term and alternative options that will address the existing capacity issues in the Loganholme trunk sewer network. These options should be developed in the context of the long term strategy, but will focus on improving the staging of capital expenditure associated with the preferred strategy." The works are part of the Logan Water alliance which is understood to be behind schedule in delivering constructed and commissioned infrastructure. While there is a large amount of money to be spent, particularly in 2011/12, the works programmed should be achievable.			
Recommendations	Although the preferred strategic option for the Slacks Creek project has been identified, the configuration and staging of the preferred strategy is still under development, and as such, there is insufficient information to determine whether the project is prudent and efficient and it is recommended that the capital expenditure in 2011/12 and 2012/13 should be reviewed in the future.			
Adopted Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$2,000,000	Requires further review	Requires further review	

	Project: Point Lookout WWTP			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 5,656,000	$ 6,319,000	$ 289,000	$ 12,264,000
	Source: Allconnex capital expenditure List.			
	2010/11	2011/12	2012/13	Total
	$100,000	$16,818,000	-	$16,918,000
	Project Proposal Form – 63021: estimated $100,000 for the preliminary work. Point Lookout Report Rev 1 (Aug 2010): estimated $16,918,000 for design and construct of this project.			
Project Description	The Point Lookout Sewerage development identified the need to upgrade / further develop the Point Lookout WWTP, particularly to address the issue of nutrient release at Cylinder Beach and providing for the emerging growth of the township. The capacity of the plant is to be upgraded from approximately 860EP to around 6000EP. Preliminary work (detailed design and tender assessment) to be completed in 2010. Construction scheduled to commence in 2011 (ref: supporting document – Program Gant Chart) and scheduled for completion by 2012.			
Initial Information Provided	• Point Lookout WPCW Capacity of existing plant • Point Lookout STP Interim Technical report			

	Project: Point Lookout WWTP
	• Point Lookout Sewerage treatment plant planning report • Point Lookout STP Planning Report • Point Lookout STP Planning Report • Pt Lookout sewerage management project Stage 1 • Pt Lookout sewerage management project Stage 2 • Pt Lookout alternative sewerage scheme investigation report • 176_Pt Lookout sewage management project stage 2 key holes- water contamination potential • 179_Pt Lookout sewage management project stage 2 comparison of effluent irrigation options • 309_2004 TENDER REVIEW AND MBR OPTION INVESTIGATION REPORT.pdf • 310_Point Lookout WWTP Design and Construction Tender Documents.pdf • 311a_Point Lookout WWTP Environmental Management Plan - EMP.pdf • 311b_Point Lookout WWTP Environmental Management Plan - EMP (Editable) • 312_RECYCLED WATER network Point Lookout Planning report • 346_Point Lookout Wastewater Treatment Plant Planning Report-KRB • ALLCONNEX_BOARD_REPORT_Pt Lookout Board Paper (Rev B) • LOAD ESTIMATES PS171&172.xls • Point Lookout Sewerage Project.doc • Point_Lookout_Population_Study_Draft2.doc • Program Gant Chart V1.pdf • Project Proposal Form - 63021 Pt Lookout WWTP Upgrade.xls • Pt Lookout Plant Size Cost Estimates.xls • Pt Lookout Plant Size Costs.doc • Pt Lookout Report Rev 1.1.pdf • Report_Index.xls
Category Applied	From the Board Paper and the Pt Lookout Report, the applicable categories are: • Growth – upgrade of the plant is required due to increased population growth in the catchment area. • Renewals – the project converts existing infrastructure to ensure existing desired standards of service are maintained. • Compliance – plant is currently theoretically overloaded from a mass load perspective. Upgrade is required to avoid licence excursions under wet weather conditions.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. The necessary works deemed to be required for Point Lookout WWTP are identified as

	Project: Point Lookout WWTP
	part of the Point Lookout Sewerage Development. It is specified in the Allconnex Paper for Endorsement for the Point Lookout Sewerage Development that "In accordance with the Framework, this project is considered prudent as the project is deemed necessary for: Growth, Renewals and Compliance.
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, this project appears to be ***substantially*** consistent with the policies and procedures specified within the Allconnex Price Monitoring submission document. It appears compliant with regards to the following: • Planning report – options assessment, justification, recommendation and further development. • Cost Estimates – Capital expenditure and Operational expenditure budgets • Delivery method considered within the planning report (2005) – but further supporting information is recommended to provide confirmation on the selected delivery method (to-date). • Board report, Business case – although noted that this is not the final version. • Works Program It is recommended that Allconnex provide the final version of the Board paper for verifying prudency from this perspective.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. • Scope of Works – the preferred option was determined through a 'Value for Money' multi-criteria selection process and the least "Whole of Life" cost option selected.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. • Standard of Work – the standards of work conforms with relevant standard.
Efficiency – Market Conditions	The project costs for 2010 appear to be reasonable. • Costs and Timings – An Independent Estimator (Project Support) and an Alliance Financial Auditor (KPMG) provided external scrutiny of the process and reviewed costing information. • The build-up of costs appears to be robust, with the historically expected uplifts for island working etc applied.
Deliverability and Timing	Given the level of development of the scheme, and the envisaged scope, it appears to be practicable that it could be delivered in the 2011/2012 period.
Recommendations	Based on the above, the project appears prudent and efficient. The final Board paper should be provided.
Revised Capital Expenditure Value	Not Applicable

	Reticulation – Backlog fire flow augmentation			
Capital Expenditure	2010/11	2011/12	2012/13	Total

	Reticulation – Backlog fire flow augmentation			
Value	$2,554,684	$4,629,740	-	$7,184,424
	Source: RESEND 3 year submission capital expenditure program.			
Project Description	This project involves replacing large amounts of pipe infrastructure to meet the fire flow demands. In undertaking detailed network modelling for the Pressure & Leakage Management Project, it was discovered that significant areas of the water supply network are unable to provide fire flows in accordance with the current NRW Planning Guidelines for Water Supply & Sewerage. Identified failures have been prioritised based on whether they fail at current demand (170l/person/day based on 06/07 water meter data). Subsequent years of the program contain areas that fail at 230l/person/day, and planning demands of 320l/person/day. This project will improve the (reticulation) water network's ability to provide fire flows. The 2010/11 financial year is the second of three year project program.			
Initial Information Provided	Nil			
Initial Data Gaps and Requested Information	RFI 012 – Confirmation of Standards of service adopted for the project, Project drivers (e.g. compliance, growth, renewal or improvements), supporting project justification including feasibility studies, cost estimates and independent reviews. RFI 096 – Clarification of the desired standards of service, program, total expenditure and category to which these cost have been applied.			
Additional Information Provided	The following information was submitted in response to RFI 012: • Redland Water, Water Supply System Fire Flow Review, Rev 1, July 2009. • Fireflow project brief. A written response to the questions in RFI096 was received on the 29 September 2010.			
Category Applied	These costs have been allocated to Redland "Drinking Water"- "Distribution Infrastructure and not included in another category" (Tab 5.6.1 cells H1865 and I1865 for 2010-11 and 2011-12 respectively) in the Authority template submission. An appropriate category would be Compliance.			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Improvement of the water supply network's ability to provide fire flows in accordance with the NRW's Planning Guidelines for Water Supply & Sewerage.			
Prudency (are there appropriate policies and processes in place?)	This project generally appears to be prudent with respect to appropriate processes based on the information provided. A Pressure and Leakage Management Program was undertaken across Redlands entire water supply network. A detailed fire flow analysis across its entire water supply network which identified significant fire flow deficiencies in the network. Deficiencies created by the implementation of District Meter Areas through the Pressure and Leakage Management Program where rectified with augmentations as part of the construction program. The remaining augmentations (required now based on the 2006 planning demands) were classified as 'backlog' augmentations and further investigations were undertaken to validate the need for these augmentations and prioritise the construction of these augmentations.			

	Reticulation – Backlog fire flow augmentation
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The report provided typically discusses the detailed works to be completed as part of this upgrade in order to meet the desired standards of service.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. This project has been designed to meet the fire flow requirements in the NRW's Planning Guidelines for Water Supply & Sewerage.
Efficiency – Market Conditions	The Redland Water, Water Supply System Fire Flow Review, Rev 1, July 2009 provides an itemised cost estimate totalling to $6.24M (as at Sept 2008). Based on a comparison of the average unit rates, with a range of unit rates from similar water utilities, the rates are within +/- 20% and are considered to be reasonable. The costs in the capital expenditure program for the 2010/11 and 2011/2012 financial years total $7.1M. This along with the 2009/10 expenditure which, according to the response to capital expenditure RFI096 (29/9/2010), was $2.851M suggests that for the scope the costs are over represented in the capital expenditure budget. Response to capital expenditure RFI096 (29/9/2010) identifies this cost discrepancy to be due the fact that the budget costs are due to the 2009/10 costs being compound indexed by 5% though this still does not account for the additional budgeted costs. The project costs appear to be not unreasonable.
Deliverability and Timing	The current program is based on the Water Supply System Fire Flow Review Report Rev 1, July 2009. All works indentified in the 2009-10 backlog fire flow program were delivered, the program value was $2.851M. The future program appears feasible.
Recommendations	Based on the above, the capital expenditure for this program of works for the next two years commencing 2010/11 appears prudent and efficient. It is recommended that submissions where the project has already begun, more information is included on the work that has been completed to date.
Revised Capital Expenditure Value	Not applicable.

	Project: Cleveland WWTP			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	-	$ 192,000	$ 4,661,000	$ 4,854,000
	Source: Allconnex capital expenditure list.			
	2010/11	2011/12	2012/13	Total
	$1,936,000			$7,150,000*
	Source: Cleveland supporting docs 'Cost Estimate Rev E.xls' (December 09). *= includes budget for balance tank in 2016.			
Project Description	2010: Renew access road, provide filters for recycled water, repair inlet screens, upgrade odour control, replace belt filter press. By 2016: Provide balancing tank and chlorine contact tank.			

	Project: Cleveland WWTP
Initial Information Provided	• 045_Cleveland WPCW upgrade planning report GHD 1998.pdf • 087_Cleveland Water pollution control works - Report on expansion of effluent irrigation area.pdf • 327_Cleveland WPCW Upgrade Planning Report - GHD Feb99.pdf • 335_Cleveland Water Pollution Control Works Supplementary Report-GHD Apr00.pdf • 341_Cleveland WPCW Upgrade Report on Implications on Increased Load-GHD Apr99.pdf • Cost Estimate Rev E.xls • Report Draft Rev 4.pdf Wastewater Treatment Strategy to 2025 (dated 2009)
Initial Data gaps and Requested Information	RFI 069: • The evidence supporting the Cleveland WWTP project consists of two relevant contemporary documents: Report Draft Rev 4.pdf (Wastewater Treatment Strategy to 2025) and Cost Estimate Rev E.xls • There are significant differences between the costs ($2.1M direct cost vs $3.6M direct cost) and significant on-costs added in the cost estimate document. Please can you provide narrative to support? • The scoped scheme has limited details of the main cost item (balancing tank). Report draft rev4 does not build a convincing case for the need for this item. Please can you provide narrative to support? • There are discrepancies in the unit rates used in the cost estimate document. Please provide narrative on the basis of unit costs, and basis of other costs. • We can find no information on the standards of service applied to the project. Please can you provide narrative to support? • We can find no information to support the allocation of costs for work items across the deemed categories. Please can you provide narrative to support? RFI 108: • The following elements of the Cleveland project are programmed for delivery in 2010: ▪ Refurbish access road ▪ Inlet Odour Control upgrade ▪ Repair inlet screen ▪ Filtration system for recycled water ▪ Replace BFP • Are the works still programmed for 2010? • Have specifications or tenders been prepared for these works to enable review of standards of works? • Are any vendor quotes available to verify the costs?
Additional Information provided	RFI 069: • Refer to report 341_Cleveland WPCW upgrade report on the Implication of increased load – GHD Apr 99, there has been an intention to provide a balance tank and other items to meet loads. Costs from this report are approximately equivalent to the capital required in 2013 after consumer price index is added. The current WWTP strategy needs to be updated with these expectations. In addition, experience in budgeting for WWTP assets has in recent times been

	Project: Cleveland WWTP
	difficult as the market has operated well above expectations on price. • Population growth projections in the Cleveland catchment from current (33,000 EP in 2009) until 2025 (47,000EP) are significant at 45%. The plant is currently performing well and meeting all licence limits. However, as flow and load to the WWTP increases, this will become increasing difficult to achieve with the existing WWTP process and capacity. Redland Water has undertaken various process audits and capacity assessments and has determined that flow balancing should be incorporate into plant upgrading (at about 38,000EP) otherwise aeration will not meet the oxygen requirements for biological nitrogen removal. In addition, Allconnex Water submitted a licence application for Cleveland WWTP in April 2010, as the previous provisional licence which is currently in the Information Request stage then will commence being assessed. The current effluent licence limits (based on the provisional licence) include total nitrogen (TN) 5mg/L and total phosphorus (TP) 1mg/L. These limits are considered current best practice for SEQ and are met at Cleveland STP using an oxidation ditch process. As part of the current licence application, recommendations have been received from DERM including consideration of future plant upgrade to include licence limits of TN 3mg/L and TP 0.5mg/L. The outcome of this licence application, and in particular the TN and TP licence limits assigned by DERM, will have significant implications on the planning strategy for this WWTP. The balance tank will provide additional operational stability to ensure licence nitrogen limits for the plant can be met for future loads and therefore has been included in the capital planning for the plant. A balance tank has been provided at CAPALABA WWTP and has proven to provide excellent robustness in regard to consistently meeting low levels of nitrogen. A supplementary document titled Ken Hartley Cleveland Capacity v2 is supplied. • This document has been created on the basis of experience and information from associated reports on each plant. The unit rates for similar items at different plants vary due to infrastructure differences at each site. • Refer to response provided in dot point two. • Refer to document 341_Cleveland WPCW upgrade report on the Implication of increased load – GHD Apr 99. RFI 108: • The works program is being finalised. There is no additional documentation available.
Category Applied	Growth - Majority Renewals Compliance
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need based on the information provided. There appears to be significant growth experienced in the catchment, and this is expected to continue. DERM have indicated tighter consent limits to be applied. Renewals component is minor.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The scope of works appears to be efficiently addressing the identified issues at the

	Project: Cleveland WWTP
	Cleveland. The only slight query is with respect to the need for the balancing tank. The 2009 report into Wastewater Treatment Plant Strategy states : Hartley reports that after the aeration capacity will become the limiting factor if the SRT is reduced and that the aeration capacity would be 48,000 EP which would be sufficient to meet 2025 estimated loads. Hartley states that the standby aerator could become a duty unit with a cold standby in store. GHD (GHD, 2000) also notes that to reach the ultimate load of 52,000 EP, the third stand-by aerator will most likely be " required to operate to meet peak oxygen demands, unless flow balancing is installed. They state that the plant should have been designed for a flow balancing facility to be incorporated in the 38,000 EP upgrading. In view of these comments, it would be desirable to make a provision for purchase of a spare aerator of provision of a balance tank. The balance tank will provide additional operational stability and therefore has been included as part of the future plant requirements. It has not been demonstrated that the balancing tank offers better value for money compared to increasing aeration capacity. Both are identified as potential options. It is noted that the balancing tank reduces operational risk more effectively thank aeration.
Efficiency – Standards of Works	There is insufficient data provided to be able to make as assessment on the standard of works proposed. However it is expected that appropriate standards will be used.
Efficiency – Market Conditions	The project costs appear to be not unreasonable. The project appears to be of the right order of magnitude, albeit that there are no supporting quotes for the work programmed in the near future.
Deliverability and Timing	The works programmed should be achievable. Overall this is a relatively small project. The components programmed for 2010 are relatively minor and mostly M&E works so in should be deliverable in 2010/11. The major component is not programmed until 2016 and even then the scope is relatively small.
Recommendations	The capital expenditure appears prudent and efficient. Based on the information made available the need to undertake this project appears to have been demonstrated. The estimates generated to date appear to demonstrate cost efficiency, however there are some minor concerns about apparently very different unit rates for the same or similar work at the same site. However overall the approach adopted to date appears to be efficient.
Revised Capital Expenditure Value	Not applicable.

	Provision for AC Reticulation Main Replacement			
Capital expenditure Value	2010/11	2011/12	2012/13	Total
	$1,700,000	$3,200,000	$3,200,000	$8,100,000
	Source: Allconnex 3 year submission Capital expenditure program spreadsheet, received 6/09/2010. These numbers are close to but to not exactly match those in the project initiation form.			
Project Description	Replace existing water supply reticulation mains (DN100/150 pipes) with same diameter or different diameter (as determined through planning). The following tasks are in the 2010/11 scope of the projects: • Supply and installation of about 8.3 kilometres of DN100/150 new pipelines, including valves and hydrants over 25 different locations. • Reconnection of existing water service connection to the new main. • Decommissioning of existing section of pipeline to be replaced. • Should some existing property services be found to be in poor condition, they will be replaced during the work.			
Initial Information Provided	Nil			
Initial Data Gaps and Requested Information	RFI 052 Confirmation of Standards of service adopted for the project, Project drivers (e.g. compliance, growth, renewal or improvements), Supporting project justification including feasibility studies, cost estimates and independent reviews. RFI 094 Confirmation of the capital expenditure, unit rates, details of 2011/12 and 2012/13 renewals and the cost category to which the costs have been applied.			
Additional Information Provided	RFI 052 Project initiation form – Water reticulation main renewals v1 Details of 2010-11 Water reticulation (LCC_DOCS-#6434865-v1) RFI 094 Response to this RFI was received 29/09/2010 confirming the costs, unit rates and the application of these costs as renewals. The proposed future renewals were not available.			
Category Applied	Renewal of assets.			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided in the above RFI's. Business benefits of this project include: • The number of water main breaks and associated duration of water supply interruptions will be reduced in Logan District. • Minimise unaccounted for water (system losses). • Reduce customer complaints. • Maintain customer service standards. Business impacts if this project does not proceed include: • Damage reputation of business due to customer dissatisfaction. • Decrease level of service due to unplanned interruptions for water supply. • Increased whole-of-life costs of pipeline assets. • Impact on overall KPIs. • Insurance claims from property damage or business loss.			

	Provision for AC Reticulation Main Replacement
	This work is required due to the pipe failure history over the past 3-6 years and the observed pipe conditions are the reasons behind these projects to be initiated. As part of fulfilling the customer service target of less than 25 main breaks per 100km and maintenance management, Allconnex Water aims to renew pipes that have greater than or equal 2 bursts in the past 12 months or greater than or equal 4 bursts in past 3 years on the water main asset. The Customer Service Standard was adopted in the Total Management Plan 2009 for Logan District. The report 'Review of Prudence of Capital Expenditure' September 2010 by Cardno (Qld) Pty Ltd has also drawn the conclusion that this project is prudent.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to appropriate processes based on the information provided in the above RFIs. The pipelines identified for renewal in the 2010/11 financial year have been finalised and the concept planning completed. This project has been identified from the pipe network consumption and renewal planning model "AssetPlan".
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. This project proposes to only replace mains that do not currently meet the Desired Standards of Service, those that have had a number of failures in the past few years.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The project appears to follow the Logan District Desired Standards of Service. This project plans to replace existing mains, which continue to fail, with new infrastructure in order to bring them up to standard.
Efficiency – Market Conditions	The project costs appear to be not unreasonable for the 2010/11 financial year based on the scope provided. These costs do appear on the lower side of what might be expected (less than 30% of some unit rates). The Project Initiation Plan identifies $2.88M of work, however, the program for this work is not identified. Information of the scope for the subsequent financial years is not available and hence no assessment can be made regarding its reasonableness.
Deliverability and Timing	2010/11 projects are expected to be deliverable within the proposed timeframe of one year, as no significant approvals or land purchases are generally expected to be required to undertake the renewals. Information of the scope for the subsequent financial years is not available and hence no assessment of the reasonable of the deliverability can be made.
Recommendations	Based on the above, the capital expenditure for this program of works for the three years commencing 2010/11 appears prudent and efficient. Due to lack of information no assessment can be made regarding the prudency and efficiency of capital expenditure in FY 2011/12 and 2012/13

	Provision for AC Reticulation Main Replacement
Revised Capital Expenditure Value	Not applicable

	Guineas CK Rd Gravity & Rising Main Augmentation			
Capital expenditure Value	2010/11	2011/12	2012/13	Total
	$1,083,000	-	-	$1,083,000
	Source: 'RESEND 3 year submission capex program.xls' (received 7/09/2010)			
Project Description	The scope of work is the design and construction of the infrastructure detailed below: • Construction of 38 m of 300mm rising main connecting the existing C9 rising main on the south bank of Currumbin Creek in the proximity of the Pacific Motorway (Currumbin Creek Bridge) and a pedestrian bridge; to the Southern Injector System (SIS) rising main as detailed in section 5.1 of the report. • Condition assess the existing C9 rising main that will continue in service to determine if there is a need to replace it. • Decommission the redundant C9 to C1 rising main (1080m of DN300). • Construct a new wet well (with a minimum diameter of 2.4m), to replace the existing C9 wet wells (2 x 1.86 dia wells) and provide new pumps and associated mechanical and electrical equipment (e.g. switchboards, soft starter units). • Decommission the redundant wet wells. • Condition assess the S004-C1 to S004-00064N rising main to determine if there is a need to replace it. • Upgrade C1 pumps or impeller and install a VSD. • The provision of "As Constructed" drawings and other documentation as per the Land Development Guidelines. • Update GIS with "As Constructed" data. • Update Hansen with new asset information and decommissioned asset information.			
Initial Information Provided	Nil			
Initial Data Gaps and Requested Information	RFI 053	Confirmation of Standards of service adopted for the project, Project drivers (e.g. compliance, growth, renewal or improvements), supporting project justification including feasibility studies, cost estimates and independent reviews.		
	RFI 093	Confirmation of the final scope of the project, the completion date, the cost discrepancy and the cost driver.		
Additional Information Provided	RFI 053	The following information was supplied as a response: • The project initiation form • Elanora Group 5, Investigation design report, Gold Coast Water (16 June 2010)		
	RFI093	Response to this RFI was received 29/09/2010.		
Category Applied	Growth - 100% Assessed: Growth - Majority, Renewal - Minority			

	Guineas CK Rd Gravity & Rising Main Augmentation
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided in the above RFIs. The augmentation of this infrastructure is required due to increased population growth in the catchment area and the current infrastructure not meeting the flow requirements.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to appropriate processes based on the information provided in the above RFI's. While there is little information it appears that consideration has been given by different teams throughout Gold Coast Water, via a process. It is recommended that in the future process for identifying appropriate capital expenditure be recorded and available for review.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria Currently this infrastructure does not meet the desired standards of service. There is currently spilling at this site and at properties just upstream. Growth is also expected in the area and with an already overloaded system it is proposed that the above design and construction work be complete to meet the desired standards of service.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria This project appears to meet the desired standards of service and avoid spilling at this site. The planning of this work has taken into account its compatibility with a number of other interrelated works. In the Investigation Design Report supplied the broad scope of this project is identified. The specific standard of the works with respect to technical, design and construction requirements in legislation, industry and other standards, codes and manuals has yet to be identified.
Efficiency – Market Conditions	The project costs appear to be not unreasonable based on the scope provided. Based against comparisons with benchmarks the costs are within +/-30%.
Deliverability and Timing	It would be expected that this project could be completed in the 2010/11 financial year, notwithstanding that the current status of this project is unclear.
Recommendations	Based on the above, the capital expenditure for this program of works for the 2010/11 financial year appears prudent and efficient.
Revised Capital Expenditure Value	Not applicable

	Project: Treatment Plant Future Misc Cap items Estimate			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 105,000	$ 221,000	$ 289,000	$615,000
	Source: Allconnex capital expenditure list – for all misc cap items.			
	2010/11	2011/12	2012/13	Total
	$150,000			$ 150,000

	Project: Treatment Plant Future Misc Cap items Estimate
	Source: Response to RFI 072 $80 k for roof repairs, $70k for the remedial works for the façade (Ref: response to RFI 072)
Project Description	This project has been identified as part of the miscellaneous items that should be included within the capital works program. This project includes the renewal of both the roof and inlet building façade of the LWPCC, as it has been identified as a serious workplace health and safety issue.
Initial Information Provided	• Cardno Report on Roof • 6785787-Miscellaneous Capital items(20102011)-v1 • Roof Repair Inlet Building Price Quote from Xtreme Protective Coatings
Initial Data gaps and Requested Information	▪ RFI 072- Confirmation on scope of works and cost breakdown.
Additional Information provided	▪ Response to RFI 072 provided on 23/09/2010 ▪ Scope of Works: This project includes both the roof and façade. The Cardno report was supplied as justification of the façade work only. ▪ Cost breakdown: $80k for the roof repairs and $70k for the remedial work for the façade to ensure safety obligations are met.
Category Applied	From the initial information provided for this project, the applicable category is: ▪ Renewals – the project converts existing infrastructure to ensure existing desired standards of service are maintained.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. It is necessary to renew the LWPCC Inlet Building Façade and Roof Repairs as it has been identified as a serious workplace health and safety issue. This is evidenced by the photos enclosed with the supporting document, which shows loose bricks at the top part of the façade and a vertical crack over the southern wall. As a temporary solution the southern wall has been cordoned off, however this is now impinging operation of the plant as some equipment cannot be maintained.
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, this project appears to be substantially consistent with the policies and procedures specified within the Allconnex Price Monitoring submission document. The project involves renewal of the façade and roof. Planning report (letter format by Cardno) provides information on the roof and façade, but only the costing information for the roof was provided. Additional information requirements include the following: ▪ Cost Estimates – Capital expenditure and Operational expenditure budgets for the façade building ▪ Delivery method considered within the planning report (2005) – but further supporting information is recommended to provide confirmation on the selected delivery method (to-date).

	Project: Treatment Plant Future Misc Cap items Estimate
	▪ Board report, Business case – although noted that this is not the final version. ▪ Works Program Notwithstanding this, this project generally appears to be prudent with respect to appropriate processes based on the information provided.
Efficiency – Scope of Works	▪ From a Scope of Works perspective, this project appears to meet the criteria Scope of works for this project to meet service standards (particularly health and safety) requirements.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. ▪ Standard of works provided within the Cardno Report, such as compliance with Safety Standard Act,
Efficiency – Market Conditions	Insufficient information was provided to confirm what proportion of miscellaneous capital expenditure is these two items.
Deliverability and Timing	Further information is required to confirm the programme deliverability of these 2 items, however this is not thought to be undeliverable.
Recommendations	Based on the above, the project appears to be prudent. However, further information (eg detailed report, delivery method, board report, works program) is required in order to confirm this. Based on the above, the project appears to be efficient. However, it is recommended that clarification be provided on the difference between the cost indicated within the Allconnex capital expenditure list ($600k) and the Capital expenditure for the façade building and roof repairs ($150k). It is assumed that budget for future years may also include other items which have not yet been scoped out.

Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$105,000	Requires further review	Requires further review	

	Project: Pump Station No. 61			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$53,000	$177,000	-	$230,000
	Source: Allconnex capital expenditure List.			
	2010/11	2011/12	2012/13	Total
	$53,000	$191,000	-	$244,000
	Source: Response to the RFI 077 and Planning Report Response to the RFI 077 specified a capital cost allowance of $53k for the preliminary works prior to the construction stage.			

	Project: Pump Station No. 61
	Total asset cost of $244k for PS No. 61 was taken from the Planning Report. As the response to the RFI 077 did not detail the costs allocated for the construction stage, it is assumed to be that the difference between the estimated total asset cost and the preliminary works is for the construction stage.
Project Description	Pump station upgrade for Pump Station No. 61 in order to meet performance requirements. New Pump duty 2 pumps 41L/s @ 57m. It has been identified as under capacity by MWH (2006) and Cardno (2009). Only designs will be undertaken in 10/11 to ease expenditure load. Construction scheduled for 11/12.
Initial Information Provided	■ 402_ Preliminary Design of SPSs in Victoria Point (Sewerage Planning Report). ■ 63083 Project Proposal Form – SPS 61.
Initial Data Gaps and Requested Information	■ Require clarification on the cost breakdown, particularly on the design works and construction costs. The Planning Report (2009) provides details on the base cost structure (which includes 5% for design), and estimated a total asset cost of $244,000. However, on the project proposal form, the design cost was specified as $25,000 (and reference a 2007 CH2MHill report). ■ RFI 077 – Clarification on the estimated capital cost details. ■ Require clarification on the driver for the upgrade for PS No. 61, or to provide supporting information that a new wet well is required for PS No. 61. Planning report identified that the operating levels of PS 61 needs to be reviewed as they are currently failing design standards with respect to pump starts / hour, but did not mention any conclusion (ie outcomes from assessing the adequacy of the current wet well). ■ RFI 088 – Clarification on the efficiency of the expenditure allocated for this project.
Additional Information Provided	■ Response to RFI 077 –provided on 23/09/2010. "The capital budget for the project has allowed $53,000 for 2010/11 which includes survey, planning, design / engineering and start of construction prior to the end of 2010/11. The remaining construction will be completed by Jan 2012." ■ Response to RFI 088 – provided on 27/09/2010. "The Cardno report shows the calculated started per hour for PS61 as 28 as the ultimate flow which is deemed to be high. Currently both pumps do about 7 starts per hr, or 3.5 starts per pump per hour, which is not excessive. This indicates the current operating levels are satisfactory. PS 61 is currently operating more than 8 hrs / day which clearly indicates the PS is under capacity, irrespective of operating levels. The capacity of the PS is required to be increased from currently rated 16 L/s to 38 L/s. While undertaking the detailed design to determine the required pump size to deliver the increased capacity, the wet well size will also be assessed to ensure it can accommodate the pumps."
Category Applied	Growth- Majority, Renewals – Minority
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Growth – this project is part of sewerage master plan identified for the Victoria Point Sewerage Catchment area to provide sufficient capacity to cater for current and future

	Project: Pump Station No. 61
	developments in the Victoria Pt catchment. This project is required to comply with the EPA Water Protection Policy (ref: 63083 Project Proposal Form – SPS 61).
Prudency (are there appropriate policies and processes in place?)	The planning report provided was for the overall sewerage system rather than specifically on Pump Station 61. In addition, the outcomes / recommendations from the planning report did not clearly indicate the upgrade works for PS No. 61. There was insufficient information on the following aspects : • Planning report – evidence on upgrade works required for PS No. 61, which includes options assessment, justification, recommendation and further development of the upgrade works required for PS No. 61. • Cost Estimates – Capital expenditure and Operational expenditure budgets. • Delivery method considered within the planning report (2005) – but further supporting information is recommended to provide confirmation on the selected delivery method (to-date). • Board report, Business case – although noted that this is not the final version. • Works Program. It is recommended that Allconnex refine and universally implement a more rigorous assessment and documentation processes for projects beyond the following Allconnex advice. Based on the information provided, this project does not appear to be completely in alignment with the policies and procedures specified within the Allconnex Price Monitoring submission document. Consequently an assessment of the prudency with respect to appropriate processes cannot be finalised.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. Confirmation requested regarding outcomes of the planning report (as it is not specified within the report that the works required for PS 61). Response to RFI 088 provides information on the upgrade, which involves new pump capacity and reassessment of the wet well. - Noted that it was recommended to assess the wet well operating levels from the planning report as the pumps starts were deemed to be high (28 starts / hr). However, the response to RFI 088 mentions that the pump starts is currently acceptable at (7 starts / hr). The trigger / driver for this upgrade of PS 61 is due to its long operating hours (> 8hrs/day). • From the provided document (planning report) it is not clear what the required works for this project are and there are some discrepancies between the information provided within the planning report and the response to the RFI 088. - Noted from the Cardno Planning report – Duty point for PS 61 is rated at 41 L/s and running at 6.6 pump starts / hr (average 2008). Response to RFI077 mentioned, “PS 61 is currently operating more than 8 hrs/day which clearly indicates the PS is under capacity, irrespective of operating levels. The capacity of the PS is required to be increased from currently rated 16 L/s to 38 L/s.” • Response to RFI 077 provides clarification on the general characteristics of the capital item. The capital budget for the project has allowed $53,000 for 2010-11 which includes survey, planning, design/engineering and start of construction prior to the end of 2010-11. The remaining construction will be completed in 2012-1-12.
Efficiency –	From a Standards of Works perspective, this project appears to meet the criteria.

	Project: Pump Station No. 61			
Standards of Works	Expenditure appears efficient in terms of demonstrating compliance (ref: project proposal form) with EPA Water Protection Policy, as well as the entity's design / performance requirements.			
Efficiency – Market Conditions	The project costs appear to be not unreasonable. While the design investigation is still to be complete the preliminary estimate of a 2m dia. wet well to be constructed at the existing entity site seems reasonable for that scope of works indicated. Some of the overheads are tight – the% on-costs can often be higher for small projects – but given the apparent simple nature of the indicated project this might be appropriate.			
Deliverability and Timing	The project is expected to be deliverable within the proposed timeframe. There do not appear to be any deliverability issues, as this is a small project on existing entity land.			
Recommendations	It is noted that this a relatively minor project and that the budget is generally consistent with the supporting documentation. Further information could be provided on this type of project (ie detailed planning report, cost estimates, delivery method, board report, works program) in order to support the criteria / requirements to be prudent. As design investigation is yet to be completed, it is difficult to confirm on the efficiency of the expenditure for this project. However, given the apparent simple nature of this project, this project is considered to be efficient.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$53,000	Requires further review		

B.3.2 Capital projects not considered efficient and prudent

All projects evaluated are considered by SKM to be prudent and efficient for the 2010/11 financial year.

Appendix B4 Adequacy of information for operating expenditure

QCA Opex Requirement Table

Entity: Allconnex

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
5.11 Operating costs									
5.11.1 For 2010/11, an *entity* must provide details, allocated between the deemed categories in 3.4.2, of:									
(a) actual operating costs (including taxes and approved establishment costs) for the year ending 30 June 2009 and estimated actual operating costs (including taxes and establishment costs) for the year ending 30 June 2010		Y	Y		Costs in this area have not been fully apportioned to all categories.	Categories used reflect those in Allconnex Water's own EFM. Not all categories are used and some categories may represent the aggregate of a number of categories.	Not applicable		
(b) forecast operating expenditure (including taxes and approved establishment costs) from 1 July 2010 to 30 June 2013				It would be expected that there would be costs against all of the operating cost categories. Request for information has been issued to confirm that costs such as 'customer service', 'community service obligations', 'license and regulatory fees' have been included under other categories.	Costs in this area have not been fully apportioned to all categories.	Allconnex has identified that the current forecasting submitted to the QCA is based on its own Enterprise Financial Model (EFM). Not all categories are used and some categories may represent the aggregate of a number of categories.	It is noted that generally – as the business moves forward during 2010-11, further work will be undertaken to verify, test and develop more robust data. The total operational costs have been provided as well as the key forecasting assumptions.	Nil	Costs to be assigned against all of the operating cost categories. Align the cost categories identified in the return with those used on each entities accounting system to allow efficient output of data.
(i) customer service and billing		N	N						
(ii) regulated demand management costs		N	N						
(iii) community service obligation costs		N	N						
(iv) other costs		N	N						
(c) distribution operating costs									
(v) employee expenses		Y	N						
(vi) contractor expenses		Y	N						
(vii) GSL payments		N	N						
(viii) materials and services (not relating to capital expenditure), including: • the hire of equipment to undertake maintenance works • purchase of materials (including chemicals); • electricity charges; • plant operation; • vehicle running costs; • information technology; • insurance; and • other.		Y	N						
(ix) licence or regulatory fees		N	N						
(x) natural resources management costs		N	N						
(xi) corporate costs		Y	N						
(d) indirect taxes		N	N						

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
5.11.2 Comparative Data: An *entity* is required to provide an explanation of any significant change in expenditure in the explanatory notes section.		Not applicable. No significant step changes in operating expenditure by activity/location over the price monitoring period.	Not applicable	Nil	Nil	Not applicable	Not applicable	Nil	Nil
5.11.3 Explanatory notes An *entity* is required to provide information on all operating expenditure items that have been allocated across *entity business segments* or asset categories, including a description of the item, the value in thousands of dollars, the basis of allocation (including the percentage split), reason for choosing this basis and any relevant notes from the business's annual report. An *entity* is also required to provide the reasons for anticipated changes in operating costs and taxes over the period from 1 July 2010 to 30 June 2013. An *entity* is also required to provide further explanation of significant one-off expenditure items or any allocations made that would assist the Authority in its assessment of the *entity's price monitoring information returns.* *Queensland Competition Authority Information requirements for 2010/11* *16*		N	N		The methodology, percentage split and reasons for basis of allocation of costs across the entire business or asset categories are not included.	Not specifically addressed in submission.	N		Methodology, percentage split and reasons for allocation of basis of allocation of costs across the entire business or asset categories are to be included in future submissions.

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
5.11.4 Subsequent Years **For subsequent years**, a greater level of disaggregation of operating expenditure may be required. For that to be effected, a substantial effort may be required to allocate costs to their appropriate category. The degree of detail required by the ESC in Victoria for example forms Attachment 1.		N	N	Nil	No forecast data beyond the interim price monitoring period has been supplied.	Allconnex Water along with the other entities are in the first weeks of operation. To date, the focus has been on providing budget information for the interim price monitoring period (FY11-13). It would be reasonable to expect that sufficient resources are not available to provide budget information of value beyond FY13 in the first year of price monitoring.	No formal commitment to providing operating expenditure detail for *subsequent years* has been made.	Nil	Operating Costs for subsequent years to be supplied in future submissions as resources become available to complete this.
5.12 Third Party Transactions									
5.12.1 Where an *entity* enters into transactions with a *third party* which total greater than $1,000,000 of operating expenditure in aggregate, or $10,000,000 of *capital expenditure* in aggregate for the *financial year*, the *entity* must disclose:	Details of Third Party Transactions are detailed in Supporting Data including copies of Contract Documents. A sample of this documentation has been reviewed.								
(a) the name of the *third party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(b) a description of the services provided by the *third party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(c) the value of the payments made to the *third party*		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(d) a description of how the basis for the payment was determined		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(e) a description of how the payment is reflected in the price *monitoring information returns*, including the asset class or cost category that the costs are included in		N	N	Details of where costs for third party transactions appear in monitoring information are not provided. Requests for Information have been sent to clarify this.					
5.13 Related Party Transactions									
5.13.1 Where an *entity* enters into a transaction with a *related party* the *price monitoring information returns* must disclose for each transaction:	Details of Related Party Transactions are detailed in Supporting Data including copies of								
(a) the name of the *related party* which incurred the cost in providing the service to the *entity* and a description of the *entity's* interest in the *related party*		Y	Y Related Party contract docs	Nil	Nil	Not applicable	Not applicable	Nil	Nil

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
(b) a description of the service provided or received by the *related party*	Contract Documents. A sample of this documentation has been reviewed.	Y	Y Related Party contract docs	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(c) the value of the payments for the service		Y	Y Related Party contract docs	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(d) demonstration that the value reflects that which would be paid by two companies dealing at arm's length dealing with each other		N	Y Related Party contract docs	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(e) a description of how the value was arrived at, including any market testing undertaken		Y	Y	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(f) description of how the payment for the service is reflected in the *price monitoring information returns*		N	N	Details of where costs for third party transactions appear in monitoring information are not provided. Requests for Information have been sent to clarify this.					
(g) a description of how shared costs have been allocated		Y	N	Nil	Nil	Not applicable	Not applicable	Nil	Nil
5.13.2 For the purposes of this clause, a payment made under a contract with a party who was a *related party* at the time the contract was entered into, even if that party is no longer a *related party* (including, but not limited to, where the *related party* was sold to another party) must be recorded as a related party transaction.		N/A							

the other 2 entities have indicated that they will provide the same information.

Appendix C Unitywater detailed assessments

Appendix C1 Information register

SKM

Project: **QE09780**
SEQ Water and Wastewater Price Monitoring

Information Register

Reference	Date Rec'd	Rec'd from	Title	Version	Key, Confidential or Supporting	Format	Storage Location (Project file)	Description
						Word, PDF, Excel		
Unity Water								
4.00	1/09/2010	Unity	QCA Submission_Version A_PDF.pdf		Key	Pdf	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater	
4.01	1/09/2010	Unity	QCA Submission_V31.8_PDF pdf		Key	Pdf	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater	
4.02	1/09/2010	Unity	QCA Submission_V31.8_PDF pdf		Non Conf	Pdf	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Non-Confidential	
4.51	1/09/2010	Unity	Other - Non Regulated Services Expenses.xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\Other	
4.52	1/09/2010	Unity	Other - Non Regulated Services xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\Other	
4.53	1/09/2010	Unity	Other - Service Level Agreements.xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\Other	
4.54	1/09/2010	Unity	SEQ Interim Price Model and Templates - QCA Information Requirements Templates.xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\SEQ Interim Price Model and Templates	
4.55	1/09/2010	Unity	SEQ Interim Price Model and Templates - QCA Input Summary Sheet xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\SEQ Interim Price Model and Templates	
4.56	1/09/2010	Unity	SEQ Interim Price Model and Templates - QCA MAR Building Block Model.xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\SEQ Interim Price Model and Templates	
4.57	1/09/2010	Unity	SEQ Interim Price Model and Templates - QCA MAR Summary.xls		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010\SEQ Interim Price Model and Templates	
4.58	1/09/2010	Unity	Unitywater IPMR File and Workpaper Mapping August 2010 xlsx		Supp	Excel	I:\QENV2\Projects\QE09780\Incoming Information\Unitywater\Unitywater Confidential\Unitywater Interim Price Monitoring Workpapers August 2010	
4.59	27/09/2010	Unity	Northern SEQ distributor-Retailer Authority Budget Process FY10/11		Supp	PDF		

Appendix C2 Adequacy of information for Capital Expenditure

Entity: UnityWater

Assets:

- South Caboolture WWTP Upgrade and Augmentation (Stage 2)
- Burpengary Wastewater Treatment Plant Stage 2 Augmentation
- Kawana STP
- Nambour STP
- Noosa STP
- 600mm watermain – P001
- Water Meter Replacement – 20mm Meters
- WPS Pump Replacement

Asset description: South Caboolture WWTP Upgrade and Augmentation (Stage 2)

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
South Caboolture WWTP Upgrade and Augmentation (Stage 2)	RFI 33	Report for South Caboolture STP Amendments to Planning Study	Sept 2008	PDF	Yes. Upgrade is based on the requirement to meet the expected flows and loads up to 2021, as well as to meet future anticipated EPA licence requirements,	Yes. Information provided on the scope of works includes price breakdown, basis of cost estimate, and description of the preferred / recommended option, plans and drawings.	Yes. Growth	
		Report for South Caboolture STP Planning Study	Dec 2007	PDF				
		South Caboolture STP Process Flow Diagram	June 2010	PDF				
		South Caboolture STP Process Table	June 2010	PDF				
		Estimate from GHD	May 2009	XLS				
		South Caboolture Electrical Drawings		PDF				
		South Caboolture Civil Structural Drawings		PDF				

Asset description: Burpengary Wastewater Treatment Plant Stage 2 Augmentation

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Burpengary Wastewater Treatment Plant Stage 2 Augmentation	RFI 34	Burpengary East STP Planning Report	Sept 2004	Rev 3 Final, PDF	Yes. Upgrade is based on the requirement to meet future capacity (49,000 EP) and EPA requirements on effluent quality standards.	Yes. Information provided on the scope of works includes price breakdown, basis of cost estimate, and description of the preferred / recommended option, plans and drawings.	Yes. Growth	
		10-11 Treatment Works Cost Report	Aug 2010	XLS				

Entity: UnityWater

Asset description: Kawana STP

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Kawana STP	RFI 38	Diversion of South Buderim Sewerage to Kawana STP Planning Report	Nov 2008	PDF	Yes. Upgrade to Kawana STP is required due to the diversion of the flow to the STP, and to meet the EPA licence requirements of being able to treat sewage up to 5 x ADWF.	No. Further information required on the upgrade strategy / option adopted for the STP and capital works program proposed for this upgrade. Although Cardno report includes the basis of Cost estimates provided in the Planning Report.	Yes. Growth	Documents provided are for the diversion of South Buderim Area to Kawana STP. Further supporting information required on the following: - Report to Council for the diversion mentioned another report to council specifically on the Kawana STP Upgrade. (This might be a more useful document for the assessment of the prudency and efficiency of the expenditure) - Cost - In the Planning Report, cost of future upgrade A to Kawana STP = $ 7.5 million in 2008 dollars, upgrade B = $3.5 million (based on a CH2MHill 2002 report) - Schedule for this project – design, tender, construction. This is to identify the capex allocated for this project for each FY.
		Report to Council - Diversion of South Buderim Area to Kawana SEWAGE TREATMENT PLANT	Aug 2009	DOC				

Asset description: Nambour STP

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Nambour STP	RFI 39	Council Resolution - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants	September 2009	PDF	Yes. STP Augmentation Treatment Standards – Class A recycled water, enhanced nutrient removal to reduce TN to less than 3 mg/L and TP to less than 1 mg/L (50%ile).	Clarification required: - on the selection of having a new plant over the option of having two additional clarifiers – to assess efficiency of expenditure (scope of works) - Cost – derivation of a total of $ 52 million (as shown in the UnityWater Capex List) from the cost estimate of $42 mil (in 2007 dollars) from the Cost Estimate report.	Growth Compliance (although not specified in the UnityWater Capex List) – the requirement for TN to be less than 5 mg/L all times is not met at times.	
		Nambour STP: Loads and Impact Study_JWP	May, 2007	PDF				
		Original Report to Council - Sunshine Coast Regional Council's Sewage Treatment Plant Augmentation Program	Nov 2008	DOC				
		Report to Council - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants	Sept 2009	DOC				
		Review of Cost Estimate for Coolum, Suncoast and Nambour Sewage Treatment Plants _RodLehmannReport	Sept 2008	Final, DOC				

Entity: UnityWater

Asset description: Noosa STP

Project	RFI No	Information Received			Adequacy of Information Provided			
		Name of File	Date	Rev and Type	Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
Noosa STP	RFI 40	Planning Report Noosa STP	Sept 2009	Final, DOC	Yes. To ensure compliance with the changes in environmental requirements for the improvement of water quality in Burgess Creek, and changes in catchment population growth predictions.	Yes. Scope of works and associated costs (with breakdown) provided.	Growth – to meet future plant capacity requirements. Compliance – to meet EPA Licence requirements.	Capital works program to assess efficiency of expenditure, in terms of market condition, deliverability and timing.
		Council Resolution - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants	September 2009	PDF				

Asset description: 600mm watermain – P001

Project	RFI No	Information Received			Adequacy of Information Provided			
		Name of File	Date	Rev and Type	Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
600mm watermain – P001	RFI 41	Appendix M - SCW Regional Water Infrastructure Strategic Gro	2010	PDF	Standards of service are excerpted from the Sunshine Coast Water Desired Standards of Service. They are detailed in Table 4.1 – Demand Based Standards and Table 4.2 – Performance Based Standards in Sections 4 & 5 – SCW Regional Water Infrastructure Strategic Growth document.	Scope is a staged 600mm diameter main augmentations, 4,400m in length. Unit costs assumptions provided in documents Table N1 – SWC Regional Water Infrastructure Strategic Growth and GHD Valuation 08-09. Cost estimation is in document Section 11 - SCW Regional Water Infrastructure Strategic Growth	This project is identified as requiring augmentation in order to meet growth.	Supporting documents for 2011/12 and 2013/13 not provided
		Figres F1 & F2 - SCW Regional Water Infrastructure Strategic	2010	PDF				
		GHD Valuation 08-09	2010	DOC				
		MWH early advice - 3 year water CAPEX program	2010	XLS				
		MWH e-mail North Shore mains replacement sizing including Fi	2010	RTF				
		RFI Response	2010	XLS				
		Section 7.3.2 - SCW Regional Water Infrastructure Strategic	2010	PDF				
		Section 11 - SCW Regional Water Infrastructure Strategic Gro	2010	PDF				
		Sections 4 & 5 - SCW Regional Water Infrastructure Strategic	2010	PDF				
		Table N1 - SCW Regional Water Infrastructure Strategic Growt	2010	PDF				

Entity: UnityWater

Asset description: Water Meter Replacement – 20mm Meters

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
Water Meter Replacement – 20mm Meters	RFI 42	20mm Water Meter Replacement Monthly Report Sept	2010	XLS	Standards of service is in accordance with draft Australian Standard AS3565 Part 4	Scope of work is the replacement of 6,379 water meters across Unitywater Northern area. Cost is provided in the first page of the Project Brief Water Meter Replacement DOMESTIC METERS 2010-1 document. Unit cost is adopted from 2008/09 water meter replacement program as in Water Meter Replacment Rates & Debrief 2009-10 document.	Renewal – the project replaces existing meters to ensure desired standards of service are maintained.	Supporting documents for 2011/12 and 2013/13 not provided
		Project Brief - Water Meter Replacement LARGE METERS 2010-1	2010	DOC				
		Project Brief Water Meter Replacement DOMESTIC METERS 2010-1	2010	DOC				
		Request for Information SKM Audit - 20mm Water Meters 160910	2010	XLS				
		Water Meter Replacement Programme 2010-11 20mm	2010	XLS				
		Water Meter Replacment Rates & Debrief 2009-10	2010	XLS				
		BW 20060825_Revised_Draft Report Maroochy water meter	2010	DOC				
		BW 20061031 _ Draft Report_ 2nd batch Maroochy	2010	DOC				
		J Kane Water Meter Report summary Nov 06	2010	DOC				

Asset description: WPS Pump Replacement

					Adequacy of Information Provided			
Project	RFI No	Information Received			Standards of Service	Scope and Costs	Appropriate Category Applied (growth, renewal, improvements, compliance)	Comments
		Name of File	Date	Rev and Type				
WPS Pump Replacement	RFI 43	Project Brief – Upgrade Little Mountain Pump Station	Aug 2010	DOC	Yes. Renewal of this project is required to avoid the potential risks and consequences associated with the failure of the pump station.	Yes As provided within the Unitywater Project Brief for this project.	Renewal - to minimise risk of system failure and subsequent unplanned water service interruptions, as required under Unitywater Goal No. 1.4 – Effectively manage assets to meet present and future growth and other demands.	Clarification required on cost and works program to further assess efficiency of expenditure in terms of market condition, deliverability and timing.
		Preliminary Estimate – replace switchboard and pump supports for Little MTN PS Upgrade (Attach 1)	Sept 2010	PDF				
		Capital Project Request Form - Little Mtn PS Upgrade (Attach 2)	Sept 2010	PDF				
		PS Flow Calculations	Sept 2010	PDF				
		Request for Information SKM Audit - WPS Replacement WPS02		XLS				

Appendix C3 Prudency and Efficiency of Capital Expenditure Projects

Appendix C3

C.3.1 Capital projects considered efficient and prudent

The following projects are considered to be prudent and efficient for at least the 2010/11 financial year:

- South Caboolture WWTP Upgrade and Augmentation Stage 2
- Burpengary Wastewater Treatment Plant Stage 2 Augmentation
- Water Main Hakae Ct – Areca Ct, Narangba Project
- Nambour STP
- Watermain – P001
- Water Meter Replacement – 20mm Meters
- WPS Pump Replacement
- Noosa STP
- Moreton Bay Water / Sunshine Coast Water - Heavy Vehicle Fleet Replacement

The following projects are not considered to be prudent and efficient:

- Kawana STP
- Water Supply Service Reservoir, Boundary Road Reservoir No 3 (24ML)

For the following projects, information has not been provided and therefore is not included in our assessment.

- Water Supply Facilities – Switchboard Replacement Program
- Water Main WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline.

	Project: South Caboolture WWTP Upgrade and Augmentation Stage 2			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 38,115,000	$ 3,957,000	$ 433,000	$ 42,505,000
	Source: UnityWater CAPEX List.			
	2010/11	2011/12	2012/13	Total
				$ 28,698,000

	Project: South Caboolture WWTP Upgrade and Augmentation Stage 2
	Source: "Report for South Caboolture STP Amendments to Planning Study" – Sept 2008. Costs indexed to 2007.
Project Description	The upgrade and augmentation for South Caboolture Sewage Treatment Plant (SCSTP) is required to meet projected population growth and expected loads up to the year 2021. This will require the existing plant to be upgrade from its current nominal design capacity of 9.6 ML/d average dry weather flow (~ 40,000 EP) to a capacity of 18 ML/d (~ 80,000 EP). The augmented plant is a SBR type plant with the new stages being continuous process, and upgrades tertiary filtration, chlorination and sludge dewatering.
Initial Information Provided	▪ Report for South Caboolture STP Amendments to Planning Study ▪ Report for South Caboolture STP Planning Study ▪ South Caboolture STP Process Flow Diagram ▪ South Caboolture STP Process Table ▪ Estimate from GHD ▪ South Caboolture Electrical Drawings ▪ South Caboolture Civil Structural Drawings
Category Applied	Growth.
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. The existing plant is approaching its maximum capacity, and the upgrade is required to meet the projected population growth and expected loads up to the year 2021.
Prudency (are there appropriate policies and processes in place?)	With respect to appropriate processes based on the information provided the project appears to be substantially consistent with the policies and procedures set out within the Unitywater Price Monitoring submission document. Supporting information regarding the need to upgrade this STP, future infrastructure requirement, and planning investigation and the associated cost estimates and detailed drawings are provided. However, information regarding the proposed works program is not available. It is recommended that Unitywater develop / provide this information to demonstrate that they fully meet the criteria / requirements for this category.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The upgrade and augmentation of the South Caboolture WWTP is based on outcomes from options assessment as well as consideration of the characteristics of the existing plant and site by independent consultant.
Efficiency – Standards of Works	From a Standards of Works perspective this project partially meets the criteria. From the Price Monitoring submission it is noted that, "other information required by the Authority in relation to approval processes, linkages to strategic asset management plans…will be matters addressed by Unitywater during the Authority's detailed review of capital expenditure." More information relating to standards for technical, design and construction requirements should be provided to confirm consistency with the criteria.

	Project: South Caboolture WWTP Upgrade and Augmentation Stage 2
	The criteria met include meeting the anticipated future requirements of EPA licence.
Efficiency – Market Conditions	The project costs appear to be reasonable. The projected construction cost appears to be detailed and reasonably developed and robust for the scope of works indicated on the construction drawings. Although noted from the cost breakdown and basis of cost provided within the documents, the basis of cost is based on other similar projects by the independent consultant, and does not specifically provide any reference.
Deliverability and Timing	The design for the project appears to be well advanced, with a substantial set of construction drawings provided. This indicates that it would be practicable to construct the plant in 2010-2011.
Recommendations	Based on the information provided, the project is generally deemed to be prudent and efficient. To further confirm on the efficiency of this project, it is recommended that Unitywater provides the business case for assessment.
Revised Capital Expenditure Value	Not applicable

Data	Project: Burpengary Wastewater treatment Plant Stage 2 Augmentation			
Capex Value	2010/11	2011/12	2012/13	Total
				$ 22,413,000
	From the Treatment Plant Cost Report (Aug 2010)			
	2010/11	2011/12	2012/13	Total
	$ 22,413,000	-	-	$ 22,413,000
	From UnityWater CAPEX List.			
Project Description	This project consists of upgrading the existing Burpengary East STP to 49,900 EP. The plant upgrading is to include provision for a future 10 ML effluent storage reservoir to permit storage and reticulation of recycled effluent. The effluent quality standards have been developed in consultation with the EPA with the objective of reducing impacts on the northern part of Deception Bay and enhancing reuse opportunities for the reclaimed water generated. The project is substantially complete and the indicated budget is to finalise construction of the asset – the value of works completed is already is ~$37M			
Initial Information Provided	■ Burpengary East STP Planning Report (Sept 2004) ■ Treatment Plant Cost Report			
Initial Data Gaps and Requested Information	■ Clarification / further supporting information required to assess the efficiency of expenditure, particularly on the following: - Scope of works, - Cost and - Works program for the tertiary system for the plant			

Data	Project: Burpengary Wastewater treatment Plant Stage 2 Augmentation
	▪ Clarification required on the cost estimates. The planning report (2004) provided a cost estimate of approximately $ 12 million, but the treatment plant cost report provides an overall cost of $ 55 million. ▪ RFI 121
Additional Information Provided	▪ Response to RFI 121 provided (07/10/2010) Additional document provided: Tender document for the tertiary treatment system for the plant. Regarding the query on the 10 ML effluent storage tanks, Unitywater responsed, ▪ "In the 2004 planning report, the consultant CH2MHILL has only made provisions for a future storage tank. This was to accommodate the EPA discharge restrictions (EPA does not allow continuous effluent discharge) and storing effluent for reuse in future. Unitywater has sought approval for continuous effluent discharge from DERM. Depending on DERM's decision and the current flow rates, the exact capacity of the effluent storage tank will be determined in future." Regarding the query on the tertiary treatment system: ▪ (Field tests, including chlorine demand and tracer tests, were carried out to design the chlorine disinfection system. The tender specifications prepared were based on the findings of the field tests. The tender document is attached and the scope is included in the tender document. The tenders will be closed next week). ▪ (There is no tank included at this stage. As mentioned above, the need for an effluent storage tank depends on DERM's decision in relation to continuous (no time restrictions) discharge to the Caboolture River estuary. ▪ (Effluent reuse was seriously considered and the reasons included minimising the nutrient loads to waterways, minimising potable water consumption and ultimately achieving sustainable development. In view of the current regulatory environment and the consequent costs it is unlikely that Unitywater will proceed with supply of recycled from Burpengary East STP to the Narangba Industrial Estate.) Regarding the query on the basis of cost estimates, Unitywater responses, ▪ "The cost estimations were prepared by consultant CH2MHILL based on planning cost figures available at that time. At this time planning cost estimates are no longer considerations given that the former Moreton Bay water has called competitive tenders for all works, equipment and materials in accordance with the requirements of the Local Government Act. Actual expenditure and budget allocation is based upon the tenders accepted by Moreton Bay Regional Council."
Category Applied	Growth (primarily). Compliance
Prudency (i.e. there is a demonstrated need for the expenditure)	Based on the information provided, the project appears prudent from the perspective of demonstrating the need for the expenditure. Growth – upgrade required to increase the existing capacity to 49,000 EP, and to comply with EPA licence requirements. Compliance – in accordance with effluent quality requirements – the 2004 report shows that the effluent performance marginally exceeds the long term objectives for BOD and TN, and as indicated in the report, "the targets for the effluent nutrients have been revised to 2.5 mg/L TN and 0.3 mg/L TP.

Data	Project: Burpengary Wastewater treatment Plant Stage 2 Augmentation
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, this project does not appear to be prudent with regards to demonstrating that the development of this project is in alignment with the policies and procedures set out within the Unitywater Price Monitoring submission document. *Unitywater's Capital Planning Process consists of the following key components:* *1) Overall demand projections* *2) Network modelling* *3) Future infrastructure requirements* *4) Detailed planning investigation* *5) Capital prioritisation* *6) Capex program* Currently, this is regarded as not prudent due to the lack of data provided (as identified above and have been requested through RFI 121) to demonstrate prudency of this project. - The planning report (2004) provided a cost estimate of approximately $ 12 million. However, the total cost estimates for this plant (provided in the Cost Estimate report) is approximately $ 55 million. - The planning report justified the demand and need to upgrade the STP. However, there seems to be conflicting information regarding the proposed works for the next 3 FYs, particularly for the tertiary system. - This includes the detailed design, derivation of the associated cost estimates and development / justification of the works program. Noted as well that this project is already well developed. Hence, it is expected that such supporting information / documentation will be available. Level of compliance in this aspect may change when response to RFI 121 is received. Response received 07/10/2010 – which only partially addressed the need. It is recommended that Unitywater develop / provide this information to demonstrate that they meet these key criteria / requirements for this category.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to generally meet the criteria, as the upgrade option is based on the outcomes from options assessment by independent consultant. Further information required to fully meet the criteria in terms of: ■ 10 ML effluent storage tank – derivation of the requirement to have the tank and the respective size. ■ The tertiary system in terms of the assessment of the options for the disinfection system. - The costing (2004 Planning Report) excludes effluent filtration to achieve Class A reuse standards. Noted from the Treatment Plant Cost Report (Aug 2010) that a disinfection system is included ($2,500,000). Supporting information required on the scope of work for the tertiary system. - Noted that a 10 ML effluent storage tank to be provided for reuse purposes. Considering that the disinfection system is included in the 2010 cost report, clarification is required on the storage tank (is there any tank? Cost report does not indicate any) ■ The tertiary system in terms of its works program.

Data	Project: Burpengary Wastewater treatment Plant Stage 2 Augmentation
	- From the planning report (2004), equipment required for effluent re-use is indicated as 'future structure and description'. Clarification required on decision to include the effluent reuses system for this upgrade. Response provided (07/10/2010) addresses the query on the 10 ML tank –"Depending on DERM's decision and the current future flow rates, the exact capacity of the effluent storage tank will be determined in future."
Efficiency – Standards of Works	From an efficiency perspective this project partially meets the criteria. Noted from the Price Monitoring submission, "other information required by the Authority in relation to approval processes, linkages to strategic asset management plans…will be matters addressed by UnityWater during the Authority's detailed review of capital expenditure." More information relating to standards for technical, design and construction requirements can be provided to further provide evidence of efficiency. Criteria met in terms of complying and meeting anticipated future requirements of EPA licence.
Efficiency – Market Conditions	The project is now substantially complete. The former Moreton Bay Water called for competitive tenders for all works. However it is noted that the budgeted expenditure on the plant is 3.5 times the cost indicated in earlier planning reports.
Deliverability and Timing	The project is well progressed, it would appear to be reasonable to complete the remaining value of works in the indicated timescale.
Recommendations	Based on the information provided, the project appears generally to be prudent and efficient. However as the project is so well developed more information on the development of costs and program history is warranted. The cost and duration of the project to date is significantly in excess of that indicated in the planning report provided. The budgeted expenditure on the plant is 3.5 times the cost indicated in the planning report and is projecting completion 5 years after that originally proposed. The scheme may have been able to be developed in a more cost efficient way. It is recommended that a review is undertaken of the design process and any lessons learnt incorporated into relevant future projects. To further confirm on the efficiency of this project, it is recommended that Unitywater provides the business case for assessment.
Revised Capex Value	Not Applicable

	Water Main Hakae Ct-Areca Ct, Narangba Project			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	0	$0.076 million	0	$0.076 million
	Source: Unitywater additions post 1 July 10.xls			
Project	A network analysis report identified that there is a fire flow deficiency in the area of			

	Water Main Hakae Ct-Areca Ct, Narangba Project
Description	Hakae Ct-Areca Ct, Narangba. This is to be addressed by the installation of 114 metres of 150mm water main.
Initial Information Provided	▪ QCA Submission_V31.8_PDF ▪ Proposed Unitywater Service Standards
Initial Data Gaps and Requested Information	RFI 37 was sent to request a number of clarifications: ▪ Feasibility and background reports on associated works, e.g. Network Master Plan, Caboolture District, Water Supply Network Master Plan and associated drawings ▪ Details of specific water main including size and length of pipework, additional infrastructure required ▪ Conditions assessment and risk analysis of existing assets
Additional Information Provided	▪ Response to RFI 37 – project need and plan - provided on 30/09/2010
Category Applied	Compliance : 100%
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided Only very basic information was provided. However due to the nature and size of this sample small project, there is generally sufficient information to consider the prudency.
Prudency (are there appropriate policies and processes in place?)	This project appears to be prudent with respect to the use of appropriate processes based on the information provided. Unitywater's service standards and the submission to the Authority provide sufficient information that policies and procedures appropriate to supporting this project, are in place. Compliance with DERM Guidelines on fire flow requirements triggered the need for this project and this is appropriate.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The project scope of works entails the installation of 114 metres of 150mm water main. No project scoping document apart from the proposed plans was received. There is therefore a need to develop a template for small project scopes it not already in existence. Given the nature of the documentation provided for this project, the scope appears appropriate for the purposes of this review but is not considered appropriate as a quality document for project justification.
Efficiency – Standards of Works	The project will comply with the DNRM Guidelines on fire flow requirements. For other areas of the work, it is expected that appropriate industry standards will be used
Efficiency – Market Conditions	Based on a consideration of typical unit rates for this length and diameter of pipeline, the project costs appear to be reasonable (within +/- 30% of typical rates for 150mm pipe constructed in road).
Deliverability and Timing	There is insufficient information to make a judgement on the deliverability and timing of this project. Notwithstanding this it is expected that the works should be achievable.

	Water Main Hakae Ct-Areca Ct, Narangba Project
Recommendations	Based on the above, the capital expenditure appears prudent and efficient
Revised Capital Expenditure Value	Not applicable

	600mm Watermain - P001			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$0.158 million	$0.522 million	$6.965 million	$7.644 million
	Source: Section 11 & Table N1 SCW Regional Water Infrastructure Strategic Growth Planning Study – $14.283 million.			
Project Description	The project comprises the augmentation of a 600mm watermain in the Image Flat Water Supply Scheme. The watermain stretches from Savilles Rd in the West to Nambour Leagues Club in the East, with a total length of 4,400m. The priority project is identified in a recently completed "SCW Regional Water Infrastructure Strategic Growth Planning Study (MWH – July 2010)".			
Initial Information Provided	• Appendix M - SCW Regional Water Infrastructure Strategic Gro.pdf • Figures F1 & F2 - SCW Regional Water Infrastructure Strategic.pdf • GHD Valuation 08-09.docm • MWH early advice - 3 year water CAPEX program.xls • MWH e-mail North Shore mains replacement sizing including Fi.rtf • RFI Response.xls • Section 7.3.2 - SCW Regional Water Infrastructure Strategic .pdf • Section 11 - SCW Regional Water Infrastructure Strategic Gro.pdf • Sections 4 & 5 - SCW Regional Water Infrastructure Strategic.pdf • Table N1 - SCW Regional Water Infrastructure Strategic Growt.pdf			
Initial Data Gaps and Requested Information	• No cost breakdown for the 3 financial years and difference in cost between capital expenditure program and supporting document. • RFI 110 – Request for cost break down and clarification of budgets difference.			
Additional Information Provided	• RFI 110 – Response Template.xls provided on 06/10/2010.			
Category Applied	Growth 100%			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Augmentation of the 600mm watermain is required due to increased population growth in the catchment area. Two existing North Shore trunk watermains are located in the vicinity of the proposed augmentation, a 300mm main constructed in 1972 and a 450mm main constructed in 1982. The ability of these existing mains to meet the increasing demand in the high growth service area is inadequate as detailed in the MWH report.			
Prudency (i.e. there are	This project appears to be generally prudent with respect to the use of appropriate			

	600mm Watermain - P001
appropriate policies and processes in place)	processes based on the information provided. A planning study report is provided. However, there is no business case or minor capital project submission. It may be that the documents have not been prepared at this point in time.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. The scope of works includes route selection / pre-design in 2010/11, detailed design in 2011/12 and construction in 2012/13. The alignment issues related to locating new watermain are considered extensive and problematic, when considering available space, constructability, land ownership and easement acquisition. Significant feasibility work is recommended in confirming preferred alignments for this proposed watermain. Rezoning has been considered, but identified to be unfeasible.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The standard of the works conforms with the desired Standards of Service of Sunshine Coast Water.
Efficiency – Market Conditions	The project costs appear to be reasonable based on the provided independent cost valuation by GHD. The cost estimate entered into the current program was based on a construction unit rate of $1500/m (totalling $6.6M) which was subsequently indexed during the 2010/11 budget process. This unit rate was based on a recently completed Sunshine Coast Water project. Additional amounts of 2.25% were allowed for detailed planning (route selection etc) programmed for 2010/11, and 7.5% for detailed design programmed for 2011/12. The MWH cost estimate is significantly higher than that currently in the capital works program ($1,052) primarily due to the additional up lift factors applied (refer Table N1 - SCW Regional Water Infrastructure Strategic Growth Planning Study). The base rate used is within +/- 30% of SKM's benchmarking unit rates.
Deliverability and Timing	Notwithstanding that insufficient information regarding the program has been provided the works should be implementable within the timeframes.
Recommendations	Based on the above, the project appears prudent and efficient.
Revised Capital Expenditure Value	Not applicable

	Water Meter Replacement – 20mm Meters			
Capital expenditure Value	2010/11	2011/12	2012/13	Total
	$1.602 million	$1.684 million	$1.794 million	$5.080 million
	Source: Project Brief Water Meter Replacement Domestic Meters 2010-1 – $1.5 million			
Project Description	The project comprises the replacement of 6,379 20mm water meters across Unitywater Northern area in the 2010/11 financial year.			
Initial Information Provided	• 20mm Water Meter Replacement Monthly Report Sept.xls • Project Brief - Water Meter Replacement LARGE METERS 2010-1.doc			

	Water Meter Replacement – 20mm Meters			
	• Project Brief Water Meter Replacement DOMESTIC METERS 2010-1.doc • Request for Information SKM Audit - 20mm Water Meters 160910.xls • Water Meter Replacement Programme 2010-11 20mm.xls • Water Meter Replacement Rates & Debrief 2009-10.xls • BW 20060825_Revised_Draft Report Maroochy water meter.doc • BW 20061031 _ Draft Report_ 2nd batch Maroochy.doc • J Kane Water Meter Report summary Nov 06.doc			
Initial Data Gaps and Requested Information	• No supporting documentation on how the 2011/12 ($1.68 million) and 2012/13 ($1.79 million) programs have been developed. • RFI 111 –Clarification on how the 2011/12 and 2012/13 programs have been developed.			
Additional Information Provided	• RFI 111 – No response received as of the assessment cut off date (5/10/2010)			
Category Applied	Renewals 100%			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided The project replaces existing 20mm water meters to ensure the accurate recording of water consumption, which impact billing revenue and asset management functions.			
Prudency (i.e. there are appropriate policies and processes in place)	This project appears to be prudent with respect to the use of appropriate processes based on the information provided A project brief for 2010/11, a water meter test report and a review of the water meter test report have been provided. However, there is no business case for the project.			
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria The projects replaces 20mm water meters that are ▪ meters registering over 5500 kL, and ▪ Age of meter > 15 years			
Efficiency – Standards of Works	From a Standard of Works perspective, this project appears to meet the criteria The standard of the works conforms with the Australian Standard AS3565 Part 4.			
Efficiency – Market Conditions	The project costs appear to be reasonable based on the actual costs from the 2008-09 water meter replacement programme. A system has been put in place to track average costs per meter replacement on a monthly basis in 2010/11. It is recommended that this is used to inform and update future budgets.			
Deliverability and Timing	Works commenced in July 2010 and are scheduled for completion in May 2010.			
Recommendations	Based on the above, the project appears prudent and efficient.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$1.602 million	Further review required	Further review required	

	Water Meter Replacement – 20mm Meters

Data	**Project: WPS Pump Replacement**			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 79,000	$ 63,000	$ 70,000	$ 212,000
	Source: UnityWater CAPEX List.			
	2010/11	2011/12	2012/13	Total
	~ $ 81,000			~ $ 81,000
	Source: "Preliminary Estimate" provided.			
Project Description	This project consists of the replacement of pump bases as well as the switchboard. Assessment of the pump station has indicated that existing pumps are in fair condition but pump bases are severely rusted and required replacement to avoid failure. Existing switchboard has been upgraded from Auto-trans started to soft-started, but the rest of the switchboard is beyond its useful life.			
Initial Information Provided	▪ Project Brief – Upgrade Little Mountain Pump Station. ▪ Preliminary Estimate – replace switchboard and pump supports for Little MTN PS Upgrade (Attach 1). ▪ Capital Project Request Form - Little Mtn PS Upgrade (Attach 2). ▪ PS Flow Calculations. ▪ Request for Information SKM Audit - WPS Replacement WPS02.			
Initial Data Gaps and Requested Information	RFI 098. Clarification / supporting information required on cost and works program to further assess efficiency of expenditure in terms of market condition, deliverability and timing. This is also to verify the figures provided in the UnityWater's Capex list.			
Additional Information Provided	▪ Response to RFI 098 not provided as of 05/10/2010.			
Category Applied	Renewal			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need based on the information provided. Renewal – to minimise risk of system failure and subsequent unplanned water service interruptions, as required under Unitywater Goal No. 1.4 – Effectively manage assets to meet present and future growth and other demands.			
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, this project is not completely consistent with the policies and procedures set out within the Unitywater Price Monitoring submission document. (Refer to font in italics below). Information on the identification of assets to be renewed / replaced was provided. However, further supporting information regarding the associated cost estimates and works program are not provided. It is recommended that Unitywater develop and provide these documentations for re-assessment of the prudency of this project.			

Data	Project: WPS Pump Replacement			
	Unitywater's Capital Expenditure Process for renewals consists of the following key components: *1) Condition Assessment* *2) Update Asset Database* *3) Identify critical assets to be replaced* *4) Detailed Planning investigation* *5) Capital prioritisation* 6) *Capital expenditure program*			
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. ▪ Other options for the PS have been taken into consideration and assessed to shortlist the most preferred option for the PS.			
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to meet the criteria. The works considers the existing and adjacent infrastructure, as well as modern engineering equivalents and technologies. However, this aspect is lacking supporting information relating to standards for technical, design and construction requirements can be provided to further support evidence of efficiency.			
Efficiency – Market Conditions	Based on the information provided, it is difficult to assess the efficiency of the expenditure with regards to its market conditions. Cost breakdown are provided in one of the supporting document (Preliminary Estimate – Attach 1) but further information / clarification is required on cost and works program. The Unitywater Capex list specified an overall estimate of $212,000 for this project, whereas the supporting document mentioned $81,543 ((Sept 10 doc). It appears that further capital works are planned for the FYs – 11/12 and 12/13. Clarification required on cost and works program requested through RFI 098 (27/09/2010), however no response received as yet (05/10/2010).			
Deliverability and Timing	Project Brief, "Works to be completed by 24/12/10 due to the extremely poor condition of the existing pump supports and potential failure." Considering the simple nature of this project, the deliverability and timing appears to be practical. However, as noted from the UnityWater Capex list that expenditure is allocated for the following two FYs – 11/12 and 12/13. Clarification required of the further capital works planned for this project/program.			
Recommendations	This project appears to be prudent for the 2010/11 FY. Information on the identification of assets to be renewed / replaced was provided. Project brief (Sept 2010) provides information on the schedule and cost estimate for this project. However as noted from the UnityWater Capex list that expenditure is allocated for the following two FYs – 11/12 and 12/13. Clarification/ further information is required of the further capital works planned for this project/program.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 79,000	Requires further	Requires further	

Data	Project: WPS Pump Replacement			
		information	information	

Data	Project: Nambour STP			
Capex Value	2010/11	2011/12	2012/13	Total
	0	$ 19,471,000	$ 33,241,000	$ 52,712,000
	From UnityWater CAPEX List.			
	2010/11	2011/12	2012/13	Total
				$42,000,000
	Cost estimate report - In 2007 dollars. Response to RFI 091 - cost shown in the Capex program has been escalated from the Cost Estimate Report at 5% annum. Response to RFI 091 – work program is not finalised as yet, but it is proposed to have the augmentation works commencing in 11/12 financial year and completing in 12/13.			
Project Description	Upgrade to the Nambour STP is necessary, as it is now operating at or close to capacity, and occasionally operating in breach of its current Licence.			
Initial Information Provided	▪ Report to Council - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants ▪ Council Resolution - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants ▪ Nambour STP: Loads and Impact Study_JWP ▪ Original Report to Council - Sunshine Coast Regional Council's Sewage Treatment Plant Augmentation Program ▪ Review of Cost Estimate for Coolum, Suncoast and Nambour Sewage Treatment Plants _RodLehmannReport			
Initial Data Gaps and Requested Information	▪ Clarification / further supporting information required to assess the efficiency of expenditure (particularly on the scope of works): 1) Upgrade option - on the selection of having a new plant (Plant C) over the option of having two additional clarifiers – to assess efficiency of expenditure (scope of works) 2) Cost – derivation of a total of $ 52 million (as shown in the UnityWater Capex List) from the cost estimate of $42 million (in 2007 dollars) from the Cost Estimate report. 3) Information required on the proposed works program for the Nambour STP Upgrade. This is to assess the deliverability and timing for this project. ▪ RFI 091			
Additional Information Provided	Response to RFI 091 – provided 1/10/2010 1) Please find attached a PDF document including a capacity assessment by our process engineer and some covering correspondence (emails) which indicates our view on this. The May 2007 JWP report partially explores the option of installing two clarifiers plus some minor ancillary works to boost capacity of the plant and defer (from 2009 to 2014) the larger Plant C upgrade. However the report did not fully consider biosolids digestion and handling issues in proposing an interim clarifier upgrade option. Our own assessment [redacted]			

Data	Project: Nambour STP
	[redacted]- is that the plant is constrained by biosolids capacity limitations. In short, any proposed interim clarifier option would still need to include an upgrade of the biosolids digestion and dewatering systems at the plant. Our preference would be to upgrade both the liquid process and biosolid streams as a single exercise. 2) The cost shown in the Capex program has been escalated from the Cost Estimate Report at 5% annum. 3) Unitywater is currently proposing to undertake the augmentation works commencing in 11/12 financial year and completing in 12/13. This is subject to development approval by DERM and decisions on the preferred method of delivery by Unitywater. Additional document provided: Emails regarding Nambour STP upgrade requirements in June 2008. ■ Additional response to RFI 091 – provided 5/10/2010 - on the works program This was a capital deferral option The implementation window for the two clarifier option has expired. This needed to implement on or around 2004 to be beneficial. The option was not taken up in 2004 because it more than just two clarifiers JWP did recognise the substantial additions solids stream works that was also required. The growth in the catchment from 2004 – 2010 now requires a full upgrade to be implemented to achieve treatment standards required by DERM. in relation to the program question a rough Program for this project is ■ Develop the Business Case - 5 mths. ■ Obtain development approval - 9 mths ■ Prepare concept design and tender docs - 3 mths ■ Tender - 3 mths ■ Construction & commission - 18 mths
Category Applied	■ Growth
Prudency (i.e. there is a demonstrated need for the expenditure)	Based on the information provided, the project appears prudent. ■ Growth – Currently, the plant is already operating at or close to capacity. ■ Compliance – Currently, the plant is occasionally in breach of its current Licence.
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, this project appears to be ***substantially*** prudent (following the response to RFI 091) with regards to demonstrating that the development of this project is in alignment with the policies and procedures set out within the Unitywater Price Monitoring submission document.(Refer to font in italics below) Supporting information regarding the need to upgrade this STP is provided: ■ Planning, Options Assessment ■ Infrastructure requirements ■ Prioritisation of works ■ Works program *Unitywater's Capital Planning Process consists of the following key components:* *Overall demand projections* *Network modelling*

Data	Project: Nambour STP
	Future infrastructure requirements *Detailed planning investigation* *Capital prioritisation* *Capex program*
Efficiency – Scope of Works	From an efficiency perspective this project meets the criteria. The Scope of Works – Upgrade Strategy for the STP is based on the outcomes from options study by independent consultant, as well as consideration of options for alternatives sewerage configurations for the Nambour catchments.
Efficiency – Standards of Works	From an efficiency perspective this project partially meets the criteria Noted from the Price Monitoring submission, "other information required by the Authority in relation to approval processes, linkages to strategic asset management plans…will be matters addressed by Unitywater during the Authority's detailed review of capital expenditure." More information relating to standards for technical, design and construction requirements can be provided to further provide evidence of efficiency. Criteria met in terms of complying and meeting requirements of EPA licence (particularly to ensure treated effluent to be less than 5 mg/L at all times)
Efficiency – Market Conditions	The costs for the works appear to be consistent with prevailing market conditions. The costs for this project have been reviewed (by Water Futures Sept 2008) to ascertain the accuracy and efficiency compared with recent projects at a range of scales conducted under contemporary market conditions. Advice has been given on the most effective timing of the project to take advantage of a likely depression in contractor workload that will result in a better likelihood of competitive process being received.
Deliverability and Timing	This project appears to be practically deliverable in the timescales indicated by the entity.
Recommendations	This project appears to be prudent. Overall, this project appears to be efficient – costs for the works appear to be consistent with prevailing market conditions, and appears to be practically deliverable in the timescales indicated.
Revised Capex Value	Not applicable

	Project: Kawana STP			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	0	$ 11,578,000	$ 19,944,000	$ 31,522,000
	Source: Unitywater CAPEX List. Note: Clarification was requested regarding the capital works for this project. Subsequent additional information provided indicates that the planning report for Kawana STP augmentation is expected to be finalised late 2010 (with the earlier planning reports superseded). Hence, the efficiency of the expenditure cannot be accurately assessed for the purpose of this project. This capital expenditure is required to be assessed and reviewed in the future.			

	Project: Kawana STP
Project Description	Upgrade to the Kawana STP is required to facilitate the implementation of the diversion of the South Buderim sewerage to the nearby Kawana STP and allow for growth in the catchment
Initial Information Provided	▪ Report to Council – Diversion of South Buderim Sewerage to Kawana STP ▪ Diversion to South Buderim Sewerage to Kawana STP Planning Report.
Initial Data Gaps and Requested Information	▪ RFI 090 ▪ Documents provided are for the diversion of South Buderim Area to Kawana STP. Further supporting information required on the Kawana STP Upgrade, such as the following: 1) Report to Council for the diversion mentioned another Report to Council specifically on the Kawana STP Upgrade. (This might be a more useful document for the assessment of the prudency and efficiency of the expenditure) 2) Further information required on the upgrade strategy / option adopted for the STP and capital works program proposed for this upgrade. 3) Cost - In the Planning Report, cost of future upgrade A to Kawana STP = $ 7.5 million in 2008 dollars, upgrade B = $3.5 million (based on a CH2MHill 2002 report) 4) Schedule for this project – design, tender, construction. This is to identify the capital expenditure allocated for this project for each FY.
Additional Information Provided	▪ Response to RFI 090 – provided 29/09/2010 ▪ Response to queries (as numbered above): 1) The report to Council referred to the "South Buderim Area Sewerage Strategy Report", JWP, 2000 and "Maroochy Estuary Sustainable Loads Study", WBM Oceanics, 2004. 2) The upgrade of the Kawana STP is in the planning stage and earlier planning reports are no longer relevant. A number of relevant planning reports are in various stages of completion, including: a review of interim measures (de-bottlenecking) of the plant prior to full augmentation, environmental constraints to utilising the existing site, a structure report which will optimise demand distribution between the Kawana STP, the future Palmview STP and the future Caloundra South STP, and a study of the capacity of the Mooloolah River to assimilate wet weather discharge from the Kawana STP. This latter report is the most advanced and is included on the disc in draft form. The abovementioned structure report is subject to finalising negotiations between Sunshine Coast Regional Council and the Minister for Infrastructure and Planning. 3) "Concept Design Report for Kawana Water Pollution Control Works Stage 2B Works and Augmentation of Kawana Outfall Infrastructure", CH2M Hill, 2002 is included on the disc. 4) As mentioned in 2 above, planning for Kawana STP augmentation has not progressed to a stage where meaningful cost estimates and schedules can be made over the life of the project. Following the RFI, the following documents were provided: ▪ Concept Design Report for Kawana WPCW Stage 2b and Aug of Kawana Outfall, CH2M Hill 2002.pdf ▪ Draft Mooloolah River Loads and Sustainability Study.pdf ▪ Maroochy Estuary Sustainable Loads Study - Supplementary Report 2004 - WBM Oceanics.pdf ▪ South Buderim Area Sewerage Strategy Report 2000 - JWP.pdf

	Project: Kawana STP
Category Applied	Category: Growth
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be generally prudent with respect to demonstrated need, based on the information provided Growth – to meet EPA requirements, and increase in flow expected to Kawana STP as an outcome of the implementation of the diversion of the South Buderim Sewerage to Kawana STP. Noted that the additional information provided further justifies the need for the upgrade at Kawana STP.
Prudency (are there appropriate policies and processes in place?)	The response to RFI indicated that this project does not meet the criteria / requirements with regards to this aspect due to the lack of supporting information regarding the upgrade, which is currently in the planning stage and has not progressed to a stage where meaningful cost estimates and schedules have been created. Hence, the absence of relevant detailed designs and associated cost estimates and works program. Supporting information regarding the need to upgrade this STP has been provided. Based on the information provided, this project has not progressed sufficiently through the various procedures to be realistically assessed against the policies and procedures set out within the Unitywater Price Monitoring submission document. Unitywater's Capital Planning Process consists of the following key components: 1) Overall demand projections 2) Network modelling 3) Future infrastructure requirements 4) Detailed planning investigation 5) Capital prioritisation 6) Capital expenditure program It is recommended that Unitywater develop and provide this documentation
Efficiency – Scope of Works	This project has not progressed sufficiently through the various procedures to be realistically assessed As per the response to RFI 090, Unitywater advised that for this project, the upgrade is in the planning stage and earlier planning reports are no longer relevant. Hence, it is difficult to assess the scope. As mentioned above, clarification was requested regarding the capital works for this project. Subsequent additional information provided indicates that the planning report for Kawana STP augmentation is expected to be finalised late 2010 (with the earlier planning reports superseded). Also noted from the response to the RFI that, "planning for Kawana STP augmentation has not progressed to a stage where meaningful cost estimates and schedules can be made over the life of the project."
Efficiency – Standards of Works	This project has not progressed sufficiently through the various procedures to be realistically assessed Based on the information provided regarding the works, we are unable to assess and comment on the standards of works for this project. Notwithstanding this it is expected

	Project: Kawana STP			
	that appropriate standards will be utilised.			
Efficiency – Market Conditions	This project has not progressed sufficiently through the various procedures to be realistically assessed Notwithstanding this and based on the information provided, the project is of the right order of magnitude of costs			
Deliverability and Timing	While insufficient information has been provided regarding timing and deliverability, the works of this magnitude of costs should be able to be delivered in the 3 year timeframe			
Recommendations	The need for the project has been established. However this project has not progressed sufficiently through the various procedures to be realistically assessed with regard to compliance with procedures, scope, standards, costs, timing and deliverability It is recommended that this project is reviewed after the Unit water have complete the necessary procedures and activities to enable a meaningful review. We are aware that they are proceeding with these activities.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
		Requires further review	Requires further review	

	Project: Noosa STP			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 13,706,000	$ 23,392,000	-	$ 37,099,000
	Source: UnityWater CAPEX List.			
	2010/11	2011/12	2012/13	Total
				$35,200,000
	Source: Report for Noosa Coastal WWTP, Planning Study, July 2009. In 2007 dollars.			
Project Description	This is Stage 2 augmentation for Noosa STP. Changes in environmental requirements for the improvement of water quality in Burgess Creek, and changes in catchment population growth predictions have lead to the definition of new requirements for the Stage 2 augmentation.			
Initial Information Provided	■ Report to Council - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants ■ Council Resolution - Augmentation of Nambour, Coolum, Suncoast and Noosa Sewage Treatment Plants ■ Planning Report Noosa STP			
Initial Data Gaps and Requested Information	■ Clarification / further supporting information required to assess the efficiency of expenditure (market condition), deliverability and timing. ■ RFI 092			
Additional Information Provided	■ Response to RFI not received (05/10/2010)			

	Project: Noosa STP
Category Applied	Growth
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need, based on the information provided. Growth – to meet future plant capacity requirements. Compliance – to meet EPA Licence requirements.
Prudency (are there appropriate policies and processes in place?)	Based on the information provided, this project appears to be ***substantially consistent*** with the policies and procedures set out within the Unitywater Price Monitoring submission document.(Refer to font in italics below) Supporting information regarding the need to upgrade this STP is provided: ■ Planning, Options Assessment ■ Infrastructure requirements However, the works program (and delivery method) have not been provided for this project by Unitywater. It is recommended that Unitywater develop and provide these documentations for re-assessment of the prudency of this project. *Unitywater's Capital Planning Process consists of the following key components:* *Overall demand projections* *Network modelling* *Future infrastructure requirements* *Detailed planning investigation* *Capital prioritisation* *Capital expenditure program*
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to generally meet the criteria the upgrade strategy for the STP is based on the outcomes from options study by independent consultant, as well as consideration of options for alternatives sewerage configurations.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to generally meet the criteria. The works considers the existing and adjacent infrastructure, as well as modern engineering equivalents and technologies. However, supporting information relating to standards for technical, design and construction requirements can be provided to further provide evidence of efficiency.
Efficiency – Market Conditions	The project costs appear to be reasonable. Cost estimates indicated within the planning report are in the same order of magnitude as the Unitywater's Capex List.
Deliverability and Timing	It is difficult to comment with regards to the deliverability and timing for this project due to lacking information.
Recommendations	This project appears to be prudent. However, the works program (and delivery method) have not been finalised for this project by Unitywater. It is recommended that Unitywater develop and provide these documentations for re-assessment of the prudency of this

	Project: Noosa STP			
	project.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 13,706,000	Requires further review		

	Project: Moreton Bay Water/Sunshine Coast Water – Heavy Vehicle Fleet Replacement			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 6,200,100	$ 1,823,800	$ 1,516,600	$ 9,540,500
	Source: Unitywater CAPEX List – SC Additions post 1 July 10 spreadsheet.			
Project Description	Moreton Bay Water/Sunshine Coast Water - Vehicle Fleet Replacement.			
Initial Information Provided	Unitywater CAPEX List – SC Additions post 1 July 10 spreadsheet.			
Initial Data Gaps and Requested Information	■ Clarification / further supporting information required to assess the efficiency of expenditure, particularly on the following: - Scope of works, - Cost - Works program for the tertiary system for the plant ■ RFI 044			
Additional Information Provided	RFI44 (Received 05/10/10) ■ Description of historical processes and assumptions for budget formation. ■ Fleet summary for Sunshine coast and Moreton bay.			
Category Applied	Renewals			
Prudency (i.e. there is a demonstrated need for the expenditure)	This project appears to be prudent with respect to demonstrated need, based on the information provided. Unitywater has assumed that all items due for replacement would be replaced with similar item. We understand that as Unitywater gains further information on the condition and performance of fleet and plant as well as the operational requirements, there will be to business analysis including consultation with the relevant unit manager that may result in revisions to the budget assumptions. The capital budget will be reviewed to align with Unitywater's Operations Division's business requirements and condition based as well as optimising procurement and disposal practices. Base data was extracted from the respective Council's Fleet departments with replacement schedules over 3 years. At the time of the budget, Unitywater's plant and fleet assembled into one listing in excel spreadsheet waiting to be loaded into the successful plant and fleet management system (as one had not been identified at this point). The replacement program was based on purchase date and industry benchmark change over criteria in time and			

	Project: Moreton Bay Water/Sunshine Coast Water – Heavy Vehicle Fleet Replacement
	utilisation. Budget Assumptions included: ■ Like-for-like replacement based on legacy replacement rules (e.g.: 3 yrs or 60,000km for business use; 4 yrs or 80,000km for private use) ■ All leased vehicles in the North due for expiry in 10/11 replaced with Unitywater owned assets ■ Price escalation of 3% YOY We believe that this is a suitable interim measure. In future, we recommend that replacement is based on a greater consideration of the need for and the condition of the asset. We understand that Unitywater is actively reviewing its plant and fleet practices and those of the previous incumbent Councils, with regard to ownership, condition, utilisation and future business operational requirements. This will be documented in a plant and fleet procurement strategy focused on business requirements, standardisation, sustainability, whole of life costs and in accordance with necessary rules and requirements and sound procurement practices such as: ■ standardising and reusing truck work bodies subject to business requirements; ■ manufacturer discounts, and ■ preferred supplier arrangements.
Prudency (are there appropriate policies and processes in place?)	Unitywater has followed a logical procedure for determining the budget for Heavy Vehicle Fleet Replacement. As of the 1st July 2010 Unitywater received plant and fleet assets as part of the Moreton Bay Regional Council's and Sunshine Coast Regional Council's former water businesses. All assets were identified by the respective Councils. Audit - Lists of assets identified as being part of the Council's water business were sent out to respective areas for reconciliation, confirmation and to report on condition of the assets. Confirmed - Sunshine Coast Water and Moreton Bay Water asset lists were sent SEQ Transfer Scheme for approval and signing by the CEO'S of the Moreton Bay Regional Council, Sunshine Coast Regional Council and Unitywater to enable transfer of registrations and ownership. In future, we would expect to see a copy of the plant and fleet procurement strategy, as indicated above.
Efficiency – Scope of Works	From a Scope of Works perspective, this project appears to meet the criteria. Assets are being replaced on a like-for-like measure.
Efficiency – Standards of Works	From a Standards of Works perspective, this project appears to generally meet the criteria. The replacement program is based on purchase date and industry benchmark change over criteria regarding time (i.e. age of asset) and utilisation.
Efficiency – Market Conditions	The project costs are considered to be reasonable. Unitywater has provided a detailed spreadsheet highlighting all vehicles to be replaced. Vehicles are considered to be of the correct order of magnitude. We understand that the first capital budget was based on assets, as identified by Councils, in the 1st transfer. After the 1st of July a second Asset Transfer audit was reconciled with the first audit. Any discrepancies will be amended when the second transfer scheme has been approved.

	Project: Moreton Bay Water/Sunshine Coast Water – Heavy Vehicle Fleet Replacement		
Deliverability and Timing	The deliverability of the project is reasonable, as involve a procurement procedure only.		
Recommendations	This project appears to be prudent. The replacement program is based on assets, as identified by Councils. Assets are identified for replacement based on purchase date and industry benchmark change over criteria regarding time (i.e. age of asset) and utilisation. The level of information is consistent with Unitywater's position as a newly formed entity. We understand that Unitywater is actively reviewing its plant and fleet practices and those of the previous incumbent Councils, with regard to ownership, condition, utilisation and future business operational requirements. This will be documented in a plant and fleet procurement strategy focused on business requirements, standardisation, sustainability, whole of life costs and in accordance with necessary rules and requirements and sound procurement practices such as: ■ standardising and reusing truck work bodies subject to business requirements; ■ manufacturer discounts, and ■ preferred supplier arrangements. In future, we would expect to see a copy of the plant and fleet procurement strategy, as indicated above. As such, we recommend that the expenditure for the 2010/11 financial year is prudent and efficient, but future years require additional review as more efficient policies and procedures are established.		
Revised Capital Expenditure Value	2010/11	2011/12	2012/13
	$ 6,200,100	Requires further review	Requires further review

C.3.2 Capital projects considered not prudent and efficient

	Project: Water Supply Service Reservoir, Boundary Road Reservoir No 3			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$514,815	$4,283,254	$162,826	$4,960,895
	Source: UnityWater CAPEX List.			
Project Description	Pine District North Water Supply Scheme - A new reservoir of 24 ML capacity is required to meet the additional demand from the Northern Growth Corridor in accordance with the Mango Hill, Griffin and Dakabin Local Area Plans.			
Initial Information Provided	Advice from Unitywater: *"This project was placed in abeyance last week. This action was taken in view of recent advice from Linkwater that bulk potable water may be supplied to the Petrie-Kallangur and Mango Hill water supply zones from the south rather than by the planned link between the Northern Interconnector Pipeline and Boundary Road reservoir complex.*			

	Project: Water Supply Service Reservoir, Boundary Road Reservoir No 3			
	There is a high probability that this project may not proceed within the next 5 years or at all if the Petrie Kippa Ring Rail link does not proceed. *At this stage it is almost certain that the project will not proceed within the next 5 years and there will be nil expenditure in that period."*			
Initial Data Gaps and Requested Information	RFI 122 - Confirmation to remove project from budget.			
Additional Information Provided	RFI 122 Response *This project will not be proceeding at this stage and it is appropriate to remove it from the budget.*			
Category Applied	Growth			
Recommendations	Based on the information regarding this project from Unitywater, an assessment of its prudency and efficiency is not required. It is recommended that this project is removed from the budget.			
Revised Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$0	$0	$0	$0
	Source: UnityWater CAPEX List.			

C.3.3 Capital projects with insufficient information to assess

	Project: Water Supply Facilities – Switchboard Replacement Program			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$ 738,400	$ 2,265,500	$ 1,662,700	$ 4,666,500
	Source: Unitywater CAPEX List – SC Additions post 1 July 10 spreadsheet.			
Project Description	Under this program electrical switchboards and instrumentation mounted therein is replaced to ensure continuity of service and compliance with electrical and instrumentation standards and legislation. The condition assessment was conducted by a Team including an RPEQ (Electrical), a licensed Electrician, and an experienced instrumentation fitter. Relevant legislation and Australian and New Zealand Standards were utilised to formulate the assessment criteria.			
Initial Information Provided	Unitywater CAPEX List – SC Additions post 1 July 10 spreadsheet.			
Initial Data Gaps and Requested Information	■ Clarification / further supporting information required to assess the efficiency of expenditure, particularly on the following: - Scope of works - Cost - Works program for the tertiary system for the plant			

	Project: Water Supply Facilities – Switchboard Replacement Program
	■ RFI 036
Additional Information Provided	■ Response to RFI 036 not provided as of the assessment cut off date (05/10/2010).
Category Applied	Renewals

	Water Main WM-NLC (500mm x 2800m) Off take and supply main from Northern Interconnected Pipeline.			
Capital Expenditure Value	2010/11	2011/12	2012/13	Total
	$2,034,270	$2,130,892	$86,848	$4,252,009
	Source: Unitywater CAPEX List – SC Additions post 1 July 10 spreadsheet.			
Project Description	Pine District North Water Supply Scheme - A new water main of 500mm diameter and 2,800m long is required to link Boundary Reservoir Complex with the Northern Interconnected Pipeline. This main is required; a) to provide an alternative source of supply to [description ends].			
Initial Information Provided	Unitywater CAPEX List – SC Additions post 1 July 10 spreadsheet.			
Initial Data Gaps and Requested Information	■ Clarification / further supporting information required to assess the efficiency of expenditure, particularly on the following: - Scope of works - Cost - Works program for the tertiary system for the plant ■ RFI 064			
Additional Information Provided	■ Response to RFI 064 not provided as of the assessment cut off date (05/10/2010).			
Category Applied	Renewals			

Appendix C4 Adequacy of information for operating expenditure

QCA Opex Requirement Table

Entity: Unitywater

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
5.11 Operating costs									
5.11.1 For 2010/11, an *entity* must provide details, allocated between the deemed categories in 3.4.2, of:									
(a) actual operating costs (including taxes and approved establishment costs) for the year ending 30 June 2009 and estimated actual operating costs (including taxes and establishment costs) for the year ending 30 June 2010		Y	N	Costs have been assigned against most categories.	Nil	Not applicable	Not applicable	Nil	Nil
(b) forecast operating expenditure (including taxes and approved establishment costs) from 1 July 2010 to 30 June 2013				Nil. Costs have been assigned against most cost categories. Methodology for the allocation is provided in the supporting information.	Differences in the data provided in the information return and supporting information have been identified. These are due to the water being embedded in Council business, and difficulty in apportioning costs from across all Council activities (eg customer service)				
(i) customer service and billing		Y	N						
(ii) regulated demand management costs		N	N						
(iii) community service obligation costs		N	N						
(iv) other costs		Y	N						
(c) distribution operating costs									
(v) employee expenses		Y	Y QCA 'Data Opex Allocation' spreadsheet, based on information from its Enterprise Financial Model (EFM).						
(vi) contractor expenses		Y							
(vii) GSL payments		Y							
(viii) materials and services (not relating to capital expenditure), including: • the hire of equipment to undertake maintenance works • purchase of materials (including chemicals); • electricity charges; • plant operation; • vehicle running costs; • information technology; • insurance; and • other.		Y							
(ix) licence or regulatory fees		Y	N						
(x) natural resources management costs		N	N						
(xi) corporate costs		Y	N						
(d) indirect taxes		Y	N						
5.11.2 Comparative Data: An *entity* is required to provide an explanation of any significant change in expenditure in the explanatory notes section.		Not applicable. No significant step changes in operating expenditure	Not applicable	Nil	Nil	Not applicable	Not applicable	Nil	Nil

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
		over the price monitoring period.							
5.11.3 Explanatory notes An *entity* is required to provide information on all operating expenditure items that have been allocated across *entity business segments* or asset categories, including a description of the item, the value in thousands of dollars, the basis of allocation (including the percentage split), reason for choosing this basis and any relevant notes from the business's annual report. An *entity* is also required to provide the reasons for anticipated changes in operating costs and taxes over the period from 1 July 2010 to 30 June 2013. An *entity* is also required to provide further explanation of significant one-off expenditure items or any allocations made that would assist the Authority in its assessment of the *entity's price monitoring information returns.* *Queensland Competition Authority Information requirements for 2010/11* *16*		Y	Detailed Methodology document included in submission	Nil	Nil	Not applicable	Not applicable	Nil	Nil
5.11.4 Subsequent Years **For subsequent years**, a greater level of disaggregation of operating expenditure may be required. For that to be effected, a substantial effort may be required to allocate costs to their appropriate category. The degree of detail required by the ESC in Victoria for example forms Attachment 1.		N	N	Nil	No forecast data beyond the interim price monitoring period has been supplied.	Unity Water along with the other entities are in the first weeks of operation. To date, the focus has been on providing budget information for the interim price monitoring period (FY11-13). It would be reasonable to expect that sufficient resources are not available to provide busget information of value beyond FY13 in the first year of price monitoring.	No formal commitment to providing operating expenditure detail for *subsequent years* has been made.	Nil	Operating Costs for subsequent years to be supplied in future submissions as resources become available.
5.12.1 Where an *entity* enters into transactions with a *third party* which total	Details of Third Party Transactions								

Requirement	Additional Information/ explanation/ links/checks	Addressed in Template (Y/N)	Addressed in Background Material (Y/N)	Questions/clarification required	Gaps identified	Assessment of whether entity identified information gap and/or whether explanation is adequate	Has entity identified approach for addressing information gap in the future, and is this sufficient	Other comments/risk (e.g. inconsistency with other sections)	Recommendations for future returns
greater than $1,000,000 of operating expenditure in aggregate, or $10,000,000 of *capital expenditure* in aggregate for the *financial year*, the *entity* must disclose:	are provided in 'Unity Water Response to Interim Price Monitoring Information requirement" Section 15.								
(a) the name of the *third party*		Y	Y	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(b) a description of the services provided by the *third party*		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil
(c) the value of the payments made to the *third party*		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil
(d) a description of how the basis for the payment was determined		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil
(e) a description of how the payment is reflected in the price *monitoring information returns*, including the asset class or cost category that the costs are included in		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil
5.13.1 Where an *entity* enters into a transaction with a *related party* the *price monitoring information returns* must disclose for each transaction:	Details of Third Party Transactions are provided in 'Unity Water Response to Interim Price Monitoring Information requirement" Section 16.								
(a) the name of the *related party* which incurred the cost in providing the service to the *entity* and a description of the *entity's* interest in the *related party*		Y	Y	Nil	Nil	Not applicable	Not applicable	Nil	Nil
(b) a description of the service provided or received by the *related party*		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil
(c) the value of the payments for the service		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil
(d) demonstration that the value reflects that which would be paid by two companies dealing at arm's length dealing with each other		Y		Nil	Nil	Unity Water states in submission that they do not have detailed comparative information. Noted that Unitywater did undertake price comparisons and competitive tensions to negotiate reductions in prices for services with Councils.	Not applicable	Nil	Nil
(e) a description of how the value was arrived at, including any market testing undertaken		N		Nil	Nil			Nil	Nil
(f) description of how the payment for the service is reflected in the *price monitoring information returns*		N		Nil	Nil	Not applicable	Not applicable	Nil	Nil
(g) a description of how shared costs have been allocated		Y		Nil	Nil	Not applicable	Not applicable	Nil	Nil

SINCLAIR KNIGHT MERZ

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