Prudency and Efficiency Assessment - Logan City Council

QUEENSLAND COMPETITION AUTHORITY

Price Monitoring of South East Queensland Water and Wastewater Distribution and Retail Activities 2013 - 2015

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SINCLAIR KNIGHT MERZ SKM BDO

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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 price monitoring of the five SEQ water and wastewater distribution and retail 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 water distribution and retail 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 water distribution and retail 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. 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.

1. Introduction

The Queensland Competition Authority (the Authority) is continuing the process of monitoring the prices for water and wastewater services provided by the five water distribution and retail entities within south east Queensland (SEQ):

- Queensland Urban Utilities
- Unitywater
- Gold Coast City Council
- Logan City Council
- Redland City Council

The five entities own, operate and maintain the local water distribution and wastewater collection and treatment infrastructure and are responsible for the retail sale of water supply and wastewater collection and treatment services to customers in their local government areas. The purpose of the price monitoring is to review the costs and revenues associated with the provision of water and wastewater services by the five entities. The five entities are monopoly providers in neighbouring areas. The aim of the price monitoring is to ensure efficiency of costs within the monopoly distribution and retail businesses in particular and to ensure sustainable water practices within the SEQ water industry in general.

To assist this process, the Authority appointed SKM to review the capital and operating expenditure forecasts for provision of regulated services over the period from July 2013 – June 2015.

The consultancy consists of two components:

- Component 1 – Sample Selection
- Component 2 – Prudency and Efficiency of Costs

Under the terms of appointment, SKM is required to:

a) Assess the existence of robust policies and procedures having regard to good industry practice, as well as compliance with such, using the review of processes and procedures implemented in approvals of expenditure and costs for a sample of capital expenditure projects and operating expenditure categories to evaluate such. In this assessment, SKM was required to determine if particular, policies and procedures reflect strategic development plans, integrate risk and asset management planning, if they support corporate directives, if they are consistent with external drivers, and if they incorporate robust procurement practices

b) Assess the robustness of the operating and capital expenditure program planning and delivery processes in an overall sense and identify any areas for improvement

c) Form a view on the prudency and efficiency of capital and operating expenditure, focusing on any areas of significant cost increase and identifying the reasons why such cost increases have occurred

In addition, the Authority engaged SKM to review the entities' progress in implementing the Authority's supported criteria; which are:

- Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective
- Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management
- 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
- A summary document to be prepared for identified major projects so as to facilitate standardised reporting

- An implementation strategy to be developed for each major project
- A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects
- Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.
- Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices

SKM has prepared a report for each of the five water distribution and retail entities (Queensland Urban Utilities, Unitywater, Gold Coast City Council, Logan City Council and Redland City Council). This report documents SKM's assessment of the prudency and efficiency of the operating costs and capital expenditure for Logan City Council for the July 2013 to June 2015 period.

1.1 Terms of reference

SKM has undertaken the assessment of the prudency and efficiency of operating and capital expenditure based on the terms of reference issued by the Authority. The full terms of reference are provided in Appendix G.

1.2 Prudency and efficiency

SKM has adopted the following definitions of prudency and efficiency of operating costs and capital expenditure generally in accordance with those set out by the Authority in its terms of reference:

- ***Operating expenditure*** is ***prudent*** if it is required to meet the entities' requirements relating to its legal and regulatory obligations or its contracts with customers
- ***Operating expenditure*** is ***efficient*** if it is undertaken in a least-cost manner over the life of the relevant assets and is consistent with relevant benchmarks
- ***Capital expenditure*** is ***prudent*** required as a result of a legal obligation, new growth, renewal of existing infrastructure, or 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
- ***Capital expenditure*** is ***efficient*** 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 more cost-effective regional solutions, the substitution possibilities between capital 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. Compliance with regulatory obligations (eg. water netserv[1] plans) is likely to be highly relevant.
- 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 assessing such, SKM has substantiated its view on efficient costs with reference to relevant interstate and international benchmarks and information sources. For example, the source of comparable unit costs and indexes has been given where available and relevant and the efficiency of costs justified.

[1] Network Service Plans

1.3 Scope exclusions

The following items are outside of the scope of our review:

- Review of capital costs before 2012-13 and after 2014-15 associated with projects that have been reviewed, unless expenditure is to be commissioned in the review period
- Review of other parts of a project for which a specific part is being undertaken as part of the commission, eg the review of a supply contract when SKM has reviewed the installation contracts of supplied goods
- Development of detailed budget cost estimates for the capital projects under review

1.4 Report overview

This report is structured as follows:

- **Section 1** provides an introduction to the project
- **Section 2** provides background in respect of Logan City Council, the Authority and the scope of this review
- **Section 2** provides a brief overview of the information provided by Logan City Council for the purposes of this review
- **Section 3** outlines SKM's review of Logan City Council's management processes, and more specifically, its approach to planning and asset management
- **Section 4** outlines SKM's assessment of the operating costs incurred / forecast by Logan City Council
- **Section 5** outlines SKM's assessment of capital expenditure incurred / forecast by Logan City Council
- **Sections 4.8** and **5.4** summarises the findings of SKM's assessment and presents the conclusions drawn from the review and recommendations in respect of the prudency and efficiency

1.5 Application of assessment

SKM's assessment of prudency and efficiency of capital expenditure applies to Logan City Council's proposed expenditure from 1 July 2013 to 30 June 2015 and to an assessment of prudency and efficiency of proposed operational costs forecasts from 1 July 2013. The underlying information used to make this determination may only be relevant to the particular circumstances and activities that will be undertaken in 2013-15. Hence, the acceptance of expenditure as being prudent and efficient in this assessment should not be used a precedent for regulatory assessments in the future. This applies to both recurring operating expenditure and capital projects where capital expenditure will be spread over a number of years.

2. Background

2.1 The entities

On 1 July 2010, the Queensland Government implemented a series of reforms in the SEQ water industry. One result of this was the formation of three new water distribution and retail entities. These entities were formed by amalgamating a number of council based and owned water utilities into three larger water entities. These entities owned the water and sewerage distribution infrastructure and sell water and sewage disposal services to customers in their respective areas. The three distribution and retail entities were Queensland Urban Utilities, Unitywater and Allconnex Water.

In addition to the retail distribution entities, four new bulk water entities that owned and operated the SEQ Water Grid were established on 1 July 2008.

On 1 July 2012, Allconnex Water was disestablished which enabled Gold Coast City Council, Logan City Council and Redland City Council to resume the delivery of water and wastewater services in their local government areas. As a result of these changes, five entities now own, operate and maintain the local water distribution and wastewater collection and treatment infrastructure in SEQ. These entities are responsible for the retail sale of water supply and wastewater services to customers. The progression of the responsible entity for the servicing areas is illustrated in **Table 1**.

Table 1 : Water Distribution and Retail entities servicing areas

Water Distribution and Retail Entities (Prior to 30 June 2010)	**Water Distribution and Retail Entities (1 July 2010 - 30 June 2012)**	**Water Distribution and Retail Entities (1 July 2012 - Present)**
Brisbane City Council	Queensland Urban Utilities	Queensland Urban Utilities
Ipswich City Council		
Lockyer Valley Regional Council		
Scenic Rim Regional Council		
Somerset Regional Council		
Sunshine Coast Regional Council	Unitywater	Unitywater
Morton Bay Regional Council		
Gold Coast City Council	Allconnex Water	Gold Coast City Council
Logan City Council		Logan City Council
Redland City Council		Redland City Council

A merger of the SEQ Water Grid Manager, LinkWater and the former Seqwater occurred on 1 January 2013 with the formation of the new the Seqwater. This new organisation has also accepted the water security and efficiency responsibilities previously performed by the Queensland Water Commission.

The five current water distribution and retail entities are the subject of this interim price monitoring assessment. This price monitoring and this subsequent report is built on the three previous years of annual interim price monitoring from 1 July 2010 to 30 June 2013, and is being carried out against a backdrop of:

- Entities in the fourth year of an establishment phase (Queensland Urban Utilities and Unitywater)
- Entities in the second year following the disestablishment of Allconnex Water
- Historic data drawn from information provided by previous service providers

- Entities implementing developed processes and systems for:
  - Capital works evaluation, approval and budgeting
  - Operational expenditure budgeting

This report is concerned with the prudency and efficiency of the operating and capital expenditure programme of Logan City Council with respect to its water and wastewater business only.

2.2 Logan City Council

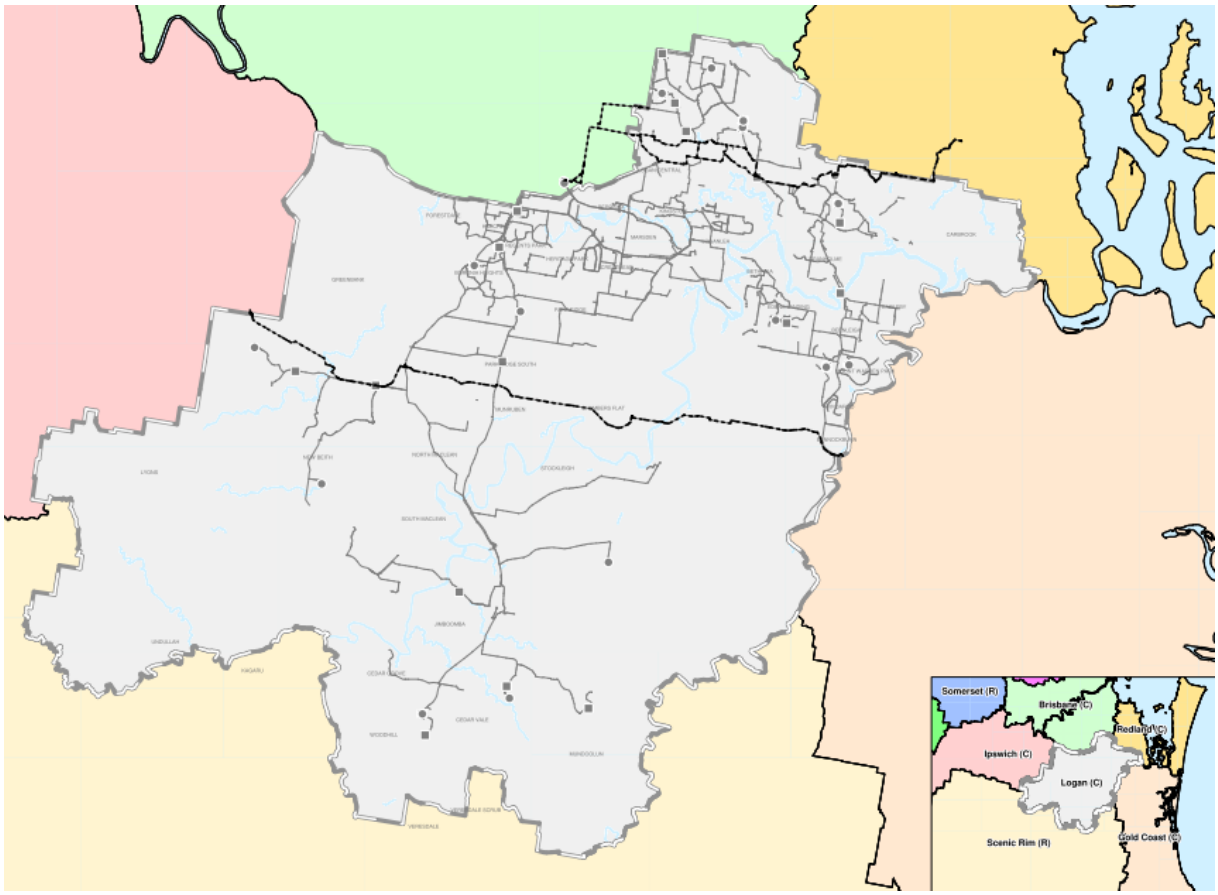
Logan City Council provides water supply and wastewater services to over 285,000 customers within an area covering some 320 km^2 (**Figure 2-1**). Logan City Council service area stretches from Rochdale in the north to Veresdale in the south and from Lyon in the west to Carbrook in the east. (Logan City Council, 2013).

Water services are provided to more than 88,000 residential and 5,000 non-residential connections and wastewater services are provided to more than 78,000 residential and 4,400 non-residential connections in the Logan City Council region. (Logan City Council, 2013).

Logan City Council' infrastructure assets include:

- 32 water reservoirs
- 27 water supply pumping stations
- 2,026 km of water supply pipelines
- 4 sewage treatment plants
- 118 sewage pumping stations
- 1,998 km of sewerage pipeline (Logan City Council, 2013)

Figure 2-1 : Logan City Council service area



2.3 The role of the Authority

The Authority is an independent Statutory Authority established by the Queensland Competition Authority Act 1997 and is given the task of 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

The Treasurer and Minister for Trade and the Attorney-General and Minister for Justice have referred the monopoly distribution and retail water and wastewater activities of Queensland Urban Utilities, Unitywater, Gold Coast City Council, Logan City Council and Redland City Council to the Authority for price monitoring from 1 July 2013 to 30 June 2015.

Under the referral, the Authority must:

- Provide information to customers about the costs and other factors underlying the provision of water and sewerage services including distinguishing between bulk and distribution / retail costs to the extent possible
- Allow the entities to treat bulk water costs as a 'cost-pass-through' item

- Monitor the change in prices of distribution and retail water and sewerage services for residential and non-residential customers
- Monitor water and sewerage revenues against the maximum allowable revenue based on the total prudent and efficient costs of carrying on the activity
- Advise a benchmark Weighted Average Cost of Capital (WACC) by 31 January 2013 and monitor the WACCs applied by the entities against the benchmark WACC
- Provide a Draft Report for 2013-15 by 31 January 2014 and a Final Report by 31 March 2014

3. Policies and procedures

3.1 Introduction

For Logan City Council this section of the report addresses the following task:

> *"Assess the existence of robust policies and procedures having regard to good industry practice, as well as compliance"* [2]

It includes the following specific assessment for capital expenditure, and a similar review for operating expenditure.

a) *"assess whether the entities' policies and procedures for capital expenditure are robust having regard to good industry practice, as well as compliance, … In particular, the policies and procedures should reflect strategic development plans, integrate risk and asset management planning, corporate directives, regional priorities, be consistent with external drivers, and incorporate robust procurement practices*

b) *the review of policies and procedures should also report on whether the entity:*

   i. *considers the prudency and efficiency of expenditure from a regional perspective;*

   ii. *includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices;*

   iii. *applies a standardised approach to cost estimating, including for items such as indexation, contingency, preliminary and general items, design fees and contractor margins;*

   iv. *prepares a summary document and implementation strategy for major projects and programs; and*

   v. *includes a 'toll gate' or 'gateway' review process at relevant milestone stages;*

c) *assess the robustness of each entity's capital expenditure program and delivery processes in an overall sense and identify any areas for improvement;"* [3]

3.2 Capital expenditure policies and procedures

3.2.1 Good industry practice

SKM considers that good industry practice for the development of capital projects and budgets includes the following:

- The identification of projects which meet the requirements of prudency and efficiency
- Project prioritisation, including prioritisation across programs of work
- Consideration of the timing of projects and the ability to deliver the capital program
- A defined review and approvals process, including documentation of this process

This has been codified in the Gateway™ Process developed by the UK Office of Government Commerce, which has been endorsed by the Queensland Government and a number of other states for major infrastructure programs and projects.

[2] Referral Notice (g) i
[3] Terms of Reference 2013-15 SEQ Price Monitoring Assessment of Operating and Capital Costs issued to SKM by the Authority

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

- A phased process, starting with a project outline, through a series of approval gates 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
- Alignment with strategic business drivers such as strategic plans, customer service standards and compliance requirements
- Fully supported capital expenditure approval documentation incorporating:
    - The project background/rationale
    - The project drivers
    - The options reviewed to address the drivers, including the method of selecting the preferred option
    - For major projects, a 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
    - Where capital is constrained, explanation of why a project is proposed over others that may adhere to the above requirements
    - A defined scope of works for the preferred option
    - The identification of project risks and how they will be managed
    - A breakdown of the approved project cost and the basis of this cost estimate, including defined cost estimating procedures, including the treatment of contingencies
    - The critical success factors of the project
    - An implementation plan

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

The level of supporting documentation will be dictated by the project size, project cost and the respective sign-off authority level within an organisation. Figure 3-1 below illustrates the kind of detail that should be presented, and notes that the capital expenditure estimates used for many projects can be expected to have an uncertainty of 30% or more.

Figure 3-1 : Typical estimation accuracies and expected documentation

Capital Project Estimating Classifications

	Class 4 Order of Magnitude	Class 3 Pre-Feasibility Study (PFS)	Class 2 Feasibility Study (FS)	Class 1 Definitive Estimate
Methodology	Capacity Factored Equpment Factored (2) Historical data/Parametric models	Conclusion of MTCs, budget pricing, factors and semi-detailed unit rates	Detailed MTOs, detailed until costs, budget pricing for all major equipment. Detailed equipment list.	Contribution of comments, awarded contracts, defined unit rates and detailed MTO's.
Purpose	Preliminary economic and technical investiaion. Project screening. Comparision or alterntives, configurations and options.	Economic feasibilty of one or more chosen options.	Project approval and basis of securoing finacing "sustainable" study.	Detailed control, target measuement, change variation, monitor and control of implementation phase.
Basis of Estimate				
Accuracy-Indicative Range	±30% to ±100%	±20% to ±25%	±10% to ±15%	±5% to ±10%
Accuracy Develelopment	Judgemental	Evaluated	@Risk Detail Analysis	@ Risk Detail Analysis
Level of Project Definition	0% to 5%	10% to 30%	30% to 70%	70% to 100%
Level of Engineering (% of Total)	0 to 2%	2% to 5%	10% to 15%	5% to 10%
Expected Estimate Contingency Range	25% to 40%	15% to 20%	10% to 15%	5% to 10%
Contracting Strategy	Assumed	Preliminary	Defined	In place
Site				
Location	Assumed	Preliminary	Specific	Final
Maps and Surveys	None	Preliminary	Some detail	Detail
Soil Tests and Geotechnics	None	Preliminary	Final	Final
Site Visits	Not essential	Desirable	Essential	Consturction start
Construciton Support	Assumed	Proposed method	Detail support	Final
Construciton site Agreement	Assumed	Assumed	Prelim discussion	Final/In place
Delivery Strategy	Assumed	Preliminary	Initial strategy	Specific
General Project Data				
Project Scope Description	General	Preliminary	Defined	Defined
Plant production/Facility Capacity	Assumed	Preliminary	Defined	Defined
Hydrology	None	Preliminary	Defined	Defined
Integrated project Plan	None	Preliminary	Defined	Defined
Project Master Schedule	None	Preliminary	Defined	Defined
Escalation Strategy	None	Preliminary	Defined	Defined
Work Breakdown Structure (WBS)	General	Preliminary	Defined	Defined
Project Code of Accounts	None	Preliminary	Defined complete	Defined
Contingency Strategy	Assumed/Factored	Calculated	Detail calc./Analysis	Detail calc. on ETC
Engineering Deliverables				
Block flow Diagrams	Started Preliminary	Preliminary/ Complete	Complete	Complete
Plot Plans	None	Started	Preliminary/ Complete	Complete
Process Flow Diagrams (PFDs)	None	Startd/Preliminary	Preliminary/ Complete	Complete
Utility Flow Diagrams (LFDs)	None	Startd/Preliminary	Preliminary/ Complete	Complete
Piping & Instrumentation Diagrams (P&IDs)	None	Started	Preliminary/ Complete	Complete
Heat & Material Balances	None	Started	Preliminary/ Complete	Complete
Process Equipment List	None	Started/Preliminary	Preliminary/ Complete	Complete
Utility Equipment List	None	Started/Preliminary	Preliminary/ Complete	Complete
Electrical Single Line Diagrams	None	Started/Preliminary	Preliminary/ Complete	Complete
Specifciations & Data Sheets	None	Started	Preliminary/ Complete	Complete
General Arrangement Drawings	None	Started	Preliminary/ Complete	Complete
Spare Parts Inventory	None	% of Direct Cost	Started/Preliminary	Preliminary/ Complete
Detailed Design Drawings	None	None	Started	Preliminary/ Complete
Capital Cost Estimate				
Infrastructure Costs:	Assumed	Investigated	Finalise detail	Finalised
General Cost Approach	Factored block costs	Preliminary quanity	Detail quanity	Detail/acutal quanity
Major Equipment Costs	Data bank/factored	Single source	Multiple source	Fixed tender
Civil Work	Rough quantity	Preliminary	Detailed take-off	Tender prices
Structural Work	$/unit vol.	Prelim take-off	Detailed take-off	Tender prices
Piping and Instrumentation	% machinery	Prelim take-off/%	Detailed take-off	Tender prices
Electrical	$kW	Prelim take-off	Detailed take-off	Detailed estimates
Installation	Factored/%	Man-hours/unit rates	Man hours	Man-hours/ contract
Indirect Costs	% or total	Prelim calculation	Calculation	Detail calcuation

This approach is similar to the widely used front-end-loading (FEL) approach to capital project development and similar processes used within major resources companies.

In addition, the overall capital expenditure programme should be weighted equally through the respective regulatory periods. This strategy maintains a 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.

As the multi-year capital expenditure programme is updated each year through this planning process, its impact on operating costs should be incorporated into the following year's budget for review by senior management and approval by the Board.

3.2.2 Logan water business process

In its assessment of Logan Water Business' capital expenditure Policies and Procedures SKM reviewed the following documents supplied:

- "Logan City Council Approval Process for Logan Water Alliance Work Packages" Version 1 21 May 2013
- "Logan City Council Water Infrastructure Procedures for capital works program development" Version 2 02/08/12 (Capital Works Procedures)
- "Logan City Council Water Infrastructure Procedures for monitoring and reporting on capital works program delivery" Version 2 21/9/2012
- "Logan Water Alliance Priority infrastructure plan Unit rates report" Revision 1.0 03.03.2011 (Unit Rates Report)
- "Logan Water Alliance Program management plan" 18.11.09
- "Logan Water Alliance Procurement management plan" Revision 5 27/05/13
- "Logan Water Alliance Logan City Council Program delivery process map" Rev 1.0 18/11/09
- "Logan Water Alliance Logan City Council Budget and cost management plan" Rev 1.0 19/11/09
- "Logan Water Alliance: Delegated Authorities"
- "Logan City Council Procurement policies manual" September 2011
- "Logan Water Alliance Paper Presented for Discussion – Value for Money Framework" ALG-60 19 August 2010 (Discussion Paper)
- "Lessons learnt as of Oct 18" Spread sheet

3.2.3 Capital expenditure program and delivery processes

The overall process includes requirements to reflect the Logan City Council's Corporate Plan and the draft Water NetServ Plan. It integrates with asset management planning and with corporate risk management systems.

The majority of Logan City Council's water related capital projects (83% of the total capital program in 2012-13) are carried out through Logan Water Alliance which is a joint venture between Logan City Council and Tenix Australia (with Cardno and Parsons Brinkerhoff as sub-alliance partners to Tenix). Minor projects and renewal programs are delivered through either the Council's internal resources or external contractors directly engaged by the Council.

3.2.4 Standardised approach to cost estimating

Part D of a project's Business Case development in the Capital Works Procedures outlines the cost estimate for the project. The Unit Rates Report sets out a standardised approach to cost estimating that is consistent with good industry practice. However the Unit Rates Report is not referenced by the Capital Works Procedures and hence does not outline when the method contained in the Unit Rates Report is required to be used. SKM therefore concludes that the current procedures are not robust in this area as a result of this disconnect and recommends that the Unit Rates Report is referenced in the Capital Works Procedures as a required reference

for estimating project costs. Logan City Council has advised that "… *unit rates, project owner's costs and contingency factors provided in* [the Unit Rates Report]… *are intended to be used to cost infrastructure at a strategic or master planning level".* SKM notes that the Unit Rates Report states "*To achieve greater accuracy when estimating the cost of infrastructure identified at the detailed planning or design level, it is recommended that a more detailed cost estimating approach be employed".*

However, SKM notes that, for some projects at the detailed planning level or design level, a unit rates cost estimating method is used. Irrespective of this, SKM considers that it is good practice to codify procedures such that good practice documented in procedures can be followed consistently. There is therefore merit in cross referencing the two documents relating to cost estimation, particularly as the procedural advice on not using unit rates at the detailed planning stage is contained in the 'Unit Rates Report'.

3.2.5 Prepares a summary document

All projects are required to have summary documents prepared in accordance with a procedure for a Project Brief. The process is in keeping with good industry practice and is robust.

3.2.6 Prepares an implementation strategy

Part D of a project's business case development requires options considered for a procurement approach to be documented, and the recommended approach to be outlined. This process is consistent with good industry practice and is robust.

3.2.7 Includes a 'gateway' review process

The Logan City Council Approval Process for Logan Water Alliance Work Packages meets the requirement of a gated review process that is in keeping with good industry practice.

3.2.8 Includes a detailed analysis of options for major projects

Part C of a project's business case development requires a multi-criteria analysis of a range of options. This meets the requirements of good industry practice and is robust.

3.2.9 Only includes commissioned capital expenditure from 1 July 2010 in the RAB

In the 'Price Monitoring Submission – 2013-15', Logan City Council states:

> *"The regulatory asset base (RAB) was originally created with the establishment of Allconnex Water on 1 July 2010. This was a combination of the RABs for the water businesses of Logan City Council, Gold Coast City Council and Redland City Council. This combined RAB was then adjusted as a result of Allconnex Water additions, depreciation, disposals and indexation for financial years 2010/11 and 2011/12. Following the winding up of Allconnex Water, the RAB at 30 June 2012 was then dissected into the individual council components for transfer back to the three council water businesses.*
>
> *Information on the Logan component of the combined Allconnex Water RAB for the year ended 30 June 2011 and 2012 is not available. As a result, the RAB value transferred back from Allconnex Water has been treated as the opening RAB for commencement of the Logan City Council water business on 1 July 2012.*
>
> *The RAB transferred from Allconnex Water has been advised at $1,152,090,967, which has been allocated to water and sewerage assets. Regulatory depreciation is calculated based on a straight line methodology using the valuation divided by the remaining life of the individual assets for the transferred RAB assets. Additions and disposals for the 2012/13 year have been processed with a 30 June 2013 date.*
>
> *There are a number of work-in-progress projects transferred from Allconnex Water that were capitalised or commissioned in 2012/13."*

Based on the *QCA Information Requirements Templates*, Tab 5.6.1 and 5.6.2, Logan City Council only includes capital expenditure into the RAB once it has been commissioned.

3.2.10 Regulatory compliance

As well as generic legislation, Logan Water Business needs to comply with the following water industry-specific regulatory requirements in its capital expenditure processes:

- Water Act 2000
- Water Supply (Safety and Reliability) Act 2008
- Sustainable Planning Act 2009
- Integrated Planning Act 1998
- Environmental Protection Act 1994
- Environmental Protection (Water) Policy 2009
- Plumbing and Drainage Act 2002
- Public Health Act 2005
- Australian Drinking Water Quality Guidelines
- South East Queensland Water (Distribution and Retail Restructuring) Act 2009
- Customer Water and Wastewater Code, Queensland Water Commission 2011
- Financial Accountability Act 2009
- Financial and Performance Management Standard 2009
- Queensland Procurement Policy

The Financial Accountability Act 2009 and the associated Financial and Performance Management Standard 2009 set out the financial management and reporting responsibilities of statutory bodies in Queensland, including Logan Water Business. In addition to the above, it mandates compliance with the Queensland Procurement Policy. The Auditor-General is responsible for giving an opinion on whether these requirements have been complied with in all material respects.

SKM has reviewed Logan Water Business's major capital expenditure governing documents supplied and a summary of the results of its findings is shown below in **Table 2**.

Table 2 : Results of SKM's review of Logan Water's major capital expenditure governing documents

Major governing documents supplied/accessed	Issues arising from Logan Water Business's documents
Logan City Council Water Infrastructure Procedures for capital works program development Version 2 02/08/12	Part B of a project's business case development requires documentation of the legislation that requires this project. However there is no comprehensive checklist of the water industry-specific legislative requirements which need to be complied with in capital project development.
7886945-Water Wastewater Planning Reporting Framework -v2	The following water industry-specific legislation was specifically referenced: • Water Supply (Safety and Reliability) Act 2008 • South East Queensland Water (Distribution and Retail Restructuring) Act 2009 • Environmental Protection Act 1994 • Sustainable Planning Act 2009

Major governing documents supplied/accessed	Issues arising from Logan Water Business's documents
Environmental Legal And Other Requirements Overview Register	The following water industry-specific legislation was specifically referenced: • Environmental Protection Act 1994 • Plumbing and Drainage Act 2002 • Public Health Act 2005 • South East Queensland Water (Distribution and Retail Restructuring) Act 2009 • Sustainable Planning Act 2009 • Water Supply (Safety and Reliability) Act 2008 • Water Act 2000

From the above review SKM concludes that the capital expenditure policies and procedures supplied meet Logan Water's regulatory compliance requirement.

3.2.11 Considers regional perspective

The South East Queensland Water (Distribution and Retail Restructuring) Act 2009 outlines the regional requirements for the netserv plans[4].

Also, among other things, the Bulk Water Supply Code intends to "*encourage co-ordinated network planning between the bulk and the distribution sectors to achieve infrastructure planning (including water quality improvements) on a best value for money basis*." [5]

The Capital Works Procedures reference the Draft Water Netserv Plan as a Supporting Document. The Draft Water Netserv Plan contains extensive description of coordinated regional planning in the sections entitled *"We need coordinated infrastructure to meet our growing needs"* and *"Regional and local planning"*. As such, SKM concludes that Logan Water's capital planning process does comply with the regional perspective requirement.

In addition, Logan City Council is part of the SEQ Water Service Provider Partnership (Partnership). SKM understands that the Partnership supports achievement of the obligations under the Bulk Water Supply Code for SEQ water service providers to work collaboratively on a whole of network basis to achieve best value for money outcomes for the greater benefit of the SEQ community.

The Strategy and Planning Committee reports to the Partnership and is represented by the senior manager for strategy and planning from each of the water service providers of SEQ. The purpose of the Committee is to provide strategic guidance and encourage co-ordinated network planning between the bulk and the distribution sectors to achieve infrastructure planning (including water quality improvements) on a best value for money basis.

Logan City Council states that this Committee, in addition to other roles and in consultation with the Operations Committee, will meet the requirements of the Joint Working Group required under the Bulk Water Supply Code.

The Joint Working Group has nominated three Key Priority Projects for 2014, which includes the provision of water supply to Beaudesert. Logan City Council is undertaking detailed system analysis and planning in relation to the option of providing water supply to Beaudesert from the Logan City Council water distribution system.

3.2.12 Procurement

Adoption of good industry practice in procurement helps to ensure that goods and services have been acquired on an efficient basis. Results-based principles and practices are set down in the *Local Government Act 2009*, *Local Government Regulation 2012*, and *Queensland Procurement Policy* as well as in the *Public Expenditure*

[4] The term is not capitalised in the legislation.
[5] http://www.dews.qld.gov.au/__data/assets/pdf_file/0013/32305/bulk-water-supply-code.pdf section 13

and Financial Accountability Framework and similar frameworks adopted internationally by the World Bank and other international agencies.

The good industry practices for the procurement of goods and services are:

- Procurement policy
  - It is comprehensive and adopts competitive procurement as the default method
  - It clearly defines when other methods can be used and how they are justified
  - It is freely available to the public
- Strategy – there is an active multi-year strategy to identify cost-saving opportunities that become available
- Competition – contracts are awarded by open competition unless otherwise justified
- Transparency
  - The public has ready access to procurement plans, bidding opportunities, evaluation criteria, and the results of tenders and requests for offer
  - Evaluation processes are documented and subject to independent audit
  - Losing bidders are offered feedback
- Complaints handling
  - There is an independent process for reporting and resolving complaints from bidders and potential bidders

The majority of Logan City Council's water related capital projects (83% of the total capital program in 2012-13) are carried out through Logan Water Alliance which is a joint venture between Logan City Council and Tenix Australia (with Cardno and Parsons Brinkerhoff as sub-alliance partners to Tenix). Minor projects and renewal programs are delivered through either the Council's internal resources or external contractors directly engaged by the Council.

The Logan Water Alliance has a *Procurement Management Plan* in place which sets out the policies, procedures and processes to be followed by the Alliance team for all procurement related activities. Although no multi-year procurement strategy and cost-saving targets have been developed by the Logan Water Alliance, SKM considers that its *Procurement Management Plan* is in accordance with the procurement practices adopted by most alliance type of joint ventures and aligns with good industry practices in general.

Logan City Council has a *Procurement Policy and Procurement Policies Manual* in place. SKM has been advised that the *Procurement Policies Manual* is currently under review and cost-saving targets are not included in the review. A strategic procurement plan has yet to be developed. Accordingly, SKM considers that Logan City Council's procurement practices have areas for improvement.

3.3 Operating expenditure policies and procedures

3.3.1 Good industry practice

In a regulated business it is necessary to demonstrate that an operating cost budget is efficient and that the expenditure is necessary to meet or exceed regulated service delivery standards and to maintain assets so they meet or exceed their expected asset life for a given class of asset. 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 good practice in budgeting is to achieve ongoing efficiency improvements in the management of assets. Therefore, good industry practice in 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 asset information on:

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

The starting point for measuring the efficiency of operating costs is the actual expenditure in a base year. This should be assessed for efficiency and adjusted, if necessary, to a level consistent with that of an efficient operator. Future-year operating costs forecasts are then based on extrapolating these base year costs using appropriate indices, taking into account planned and expected material changes to the asset base and material changes in operation and maintenance practices.

A regulated utility's forecast operating costs over the upcoming regulatory period is an important input to the revenue forecasting process. Typically, it must review the extent to which the forecast operating costs are consistent with the provision of an annual revenue requirement, which, in turn, is consistent with the general regulatory principles of the regulated industry. 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 assets are able to continue to provide regulated service delivery without above-average expenditure on upgrades or critical maintenance and continue the service delivery levels previously achieved through their remaining economic life consistent with the standard asset life for a given class of asset

The nature of operating costs 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 (such as through SLAs with a Council) can lead to apparent changes in operating costs if the contracted services appear against a different cost category (for example, moving maintenance to "admin and general". To understand the efficient level of operating costs requires an understanding of any such cost accounting changes and of the underlying cost drivers.

Where operating costs vary materially from one year to another, there should be an explanation of underlying causes to determine the representative level of operating costs for an efficient base year.

The 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[6].

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 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 industry's operational expenditure. These variations in the cost drivers require careful use of benchmarking between utilities to avoid misleading comparisons.

3.3.2 Operating budget formation

Logan City Council's 2013-14 operating budget is formed through the following process:

- Overarching parameters and timetable for completion of budget and council approval process provided by Mayor of the Logan City Council and the Executive Management Team (SLPT)
- Parameters set largely relate to the maximum percentage increase approved by the SLPT from 2012-13 to 2013-14
- Employee costs are budgeted in the salary model of the Finance One accounting system. Budgets are developed at a per employee level
- Other operating expenses are budgeted through the Water Budget Model which consists of the following steps:
    - A database of general ledger and maintenance ledger account numbers uploaded into the Model
    - Preparing the 2012-13 estimated actuals (annualised based on YTD January data)
    - Required adjustments are made to the base year (2012-13) figures in the Forecast Adjustment column in the Model by Finance to form the base of 2013-14 budgets
    - An Income Statement is produced by the Model which breaks down into branches, primarily the Water and Sewerage branches. It further breaks down into Trade Waste and Non-regulated Services
    - Analyses by cost account, cost groups, cost centres, operating programs and branches are carried out
    - Work-papers developed for select items such as water purchases, sales, biosolds, electricity, corporate SLA charges etc.
    - Modelling undertaken on various scenarios
    - Calculations carried out to meet the Authority's price monitoring requirements

During the process, discussions on anticipated budget changes in 2013-14 are held with managers of relevant cost centres. Required budget changes are reviewed by the finance branch for reasonableness. Following this, budget reports for each branch and program are developed and provided by the finance branch to the SLPT and then the Council for approval. The 2013-14 budgets were approved by the Council in June 2013.

SKM has noted that any expenditure increase outside of the parameters set by the Council requires the SLPT's approval.

SKM considers the budget process may be further improved in the following areas:

[6] 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.

1) Development of a benchmarking process to compare controllable operating costs with those of similar entities and thereby help identify areas where cost efficiencies can be made
2) Establishment of savings options through review of business operating processes for improvements in operating efficiency
3) Development of formal budget preparation procedures documentation
4) Implementation of a robust capital works selection and gateway decision making process will help to target infrastructure that necessitates higher than benchmark operation and maintenance expenditure

In the current situation (in the absence of a valid and reliable benchmarking framework), SKM concludes that the operating budget formation process is in accordance with good industry practice.

3.3.3 Asset management system

Good industry practice for asset management is currently specified by PAS 55-1:2008, the Publicly Available Specification for Specification for Asset Management Part 1 Specification for the optimised management of physical assets. SKM has reviewed the following documents against the requirements of PAS 55-1:2008[7]. The results of this analysis are shown in Table 3:

- "Logan City Council Asset and Service Management Strategy" #6512291 v2 19/10/10 (Asset management strategy)
- "Logan City Council Water Business Asset and services management plan 2013/14" #8356679v1 June 2013 (Asset management plan).

Table 3 : Results of SKM's review of Logan Water Business' asset management systems

PAS 55 Section reference	Asset management system requirements	Issues arising from "Logan City Council Asset and Service Management Strategy " and "Logan City Council Water Business Asset and Services Management Plan 2013/14"
4.1	General requirements	Compliant and robust
4.2	Asset management policy	No policy is delineated as an identifiable component however the principle elements are included. A policy is referenced in section 7.5 of the Asset management plan and section 2 of the Asset management strategy. Compliant and robust.
4.3	Asset management strategy, objectives and plans	The asset management strategies and plans are outlined in section 5 of the Asset management plan. Objectives are outlined in sections 2 and 3 of the Asset management plan and section 3 of the Asset management strategy. Compliant and robust.

[7] A similar draft ISO standard is currently being developed, Draft International Standard ISO/DIS 55001 Asset management — Management systems — Requirements.

PAS 55 Section reference	Asset management system requirements	Issues arising from "Logan City Council Asset and Service Management Strategy " and "Logan City Council Water Business Asset and Services Management Plan 2013/14"
4.4	Asset management enablers and controls	Not compliant as follows: • Structure etc. - Addressed in Section 2 of the Asset management plan and section 5 and 6 of the Asset management strategy • Outsourcing - Not applicable • The asset management training, awareness and competence requirements of section 4.4.3 of PAS 55 are not included in these documents. • The communication, participation and consultation requirements of section 4.4.4 of PAS 55 are not included in these documents. • Documentation - Addressed in section 7.5 of the Asset management plan • Information - Addressed in section 7.4 of the Asset management plan and sections 7, 8 and 9 of the Asset management strategy • Risk management - Addressed in section 5.5 of the Asset management plan • Compliance - Addressed in sections 3.1 and 4.1 of the Asset management plan • Change - Partially addressed in section 15 of the Asset management strategy
4.5	Implementation of asset management plan(s)	Partially described in section 5, 6 and 13 of the Asset management strategy
4.6	Performance assessment and improvement	This is partially addressed in section 8 of the Asset management plan.
4.7	Management review	Partially addressed in section 15 of the Asset management strategy

Based on SKM's review of the documents supplied, the asset management system is not consistent with good industry practice as defined in PAS 55 and is not robust. However, SKM notes that, as a local government body, Logan City Council has adopted the National Asset Management System (NAMS) framework for development of its asset management policy and asset services plans and that "*compliance with PAS 55 is not an objective sought by Logan City Council*". Nevertheless, it is a requirement of this assignment that SKM contrasts with operations of Logan Water with those of other comparable water utilities, not local councils. As such, and given that PAS 55 has been adopted internationally by many regulator utilities as an appropriate standard for asset management planning, and, more frequently now by Australian utilities, SKM considers it appropriate to use PAS 55 as an industry standard by which to compare asset management planning policies, processes and procedures

3.3.4 Planned improvements to processes

The Logan Water Business has a significant program of planned improvements to its asset management processes as detailed in the following table extracted from section 1.6 of the Asset management plan.

Table 4 : Planned improvements to asset management

No.	Task Description
1	Link the Water Business to other priorities, strategies and focus areas in future revisions of the Corporate Plan.
2	Update the 2013/14 Water PP, as well as associated performance measures and targets.
3	Amend the structure of the 20 Year Capital Works Program for new and upgraded assets to identify capital expenditure on facility and network assets.
4	Incorporate the projected renewals into the 20 Year Capital Works Program to reflect potential expenditure.
5	Develop detailed condition and criticality assessment strategies, procedures and plans, including appropriate risk analysis.
6	Implement condition and criticality assessments based on identified priorities, risks and available resources.
7	Prepare updated asset valuations as at 30 June 2013 to meet accounting standards and audit requirements.

No.	Task Description
8	Define a hierarchy structure and framework to enhance asset registration and management practices, as well as to assist financial valuation activities and the development of renewal programs.
9	Undertake a substantial data collection and cleansing exercise in relation to the facility and network assets.
10	Undertake a detailed review of the asset information for the Loganholme WWTP, Beenleigh WWTP and Alfred Street sewerage pump station.
11	Develop a 'bottom up' approach towards forecasting asset replacement costs, particularly in relation to facility assets.
12	Undertake a detailed Asset Management Systems requirements analysis and associated assessment of suitable systems available in the marketplace.
13	Undertake an analysis of operating and maintenance expenditure projections over the medium and long terms.
14	Establish account structures in the finance system to enable planned maintenance costs to be captured at lower levels (ie cyclic and statutory).

All procurement related activities (except capital projects which are carried out through Logan Water Alliance) need to follow the policies and procedures set in the Logan City Council's *Procurement Policy and Procurement Policies Manual.*

SKM has been advised that the *Procurement Policies Manual* is currently under review and cost-saving targets are not included in the review. A strategic procurement plan has yet to be developed. Accordingly, SKM considers that Logan Water's procurement practices represents work in progress and, as such, contains areas for improvement that it should endeavour to align with good industry practices.

3.4 Conclusion

As detailed above, the requirements of **Section 3.1** are addressed by the documents reviewed as summarised in the table below. In the table, compliance is summarised against good industry practice as distinct from regulatory compliance.

Table 5 : Conclusions of business process review

Requirements	Capital expenditure policies and procedures	Operating expenditure policies and procedures
Has a standardised approach to cost estimating	Yes, but not robust	Not applicable
A summary document is prepared	Yes and robust	Not applicable
An implementation strategy is prepared	Yes and robust	Not applicable
Has a gateway review process	Yes and robust	Not applicable
Includes detailed analysis of options for major projects	Yes and robust	Not applicable
Has a benefits realisation assessment process	Yes, but not robust	Not applicable
Includes requirements to comply with relevant legislation	Yes and robust	Not applicable
Includes requirements to take account of regional issues.	Yes and robust	Not applicable
Only commissioned capital expenditure from 1 July 2010 is included in the RAB	Yes	Not applicable
Overall expenditure program and delivery processes	Yes	No
Asset management in accordance with good industry practice	No	No
Procurement in accordance with good industry practice	Yes	Yes
Budget formation in accordance with good industry practice	Yes	Yes

4. Operating expenditure

4.1 Overview of operating expenditure

A breakdown of Logan City Council's operating expenditure for the price monitoring period (financial years 2013-14 and 2014-15) is provided in **Table 6.**

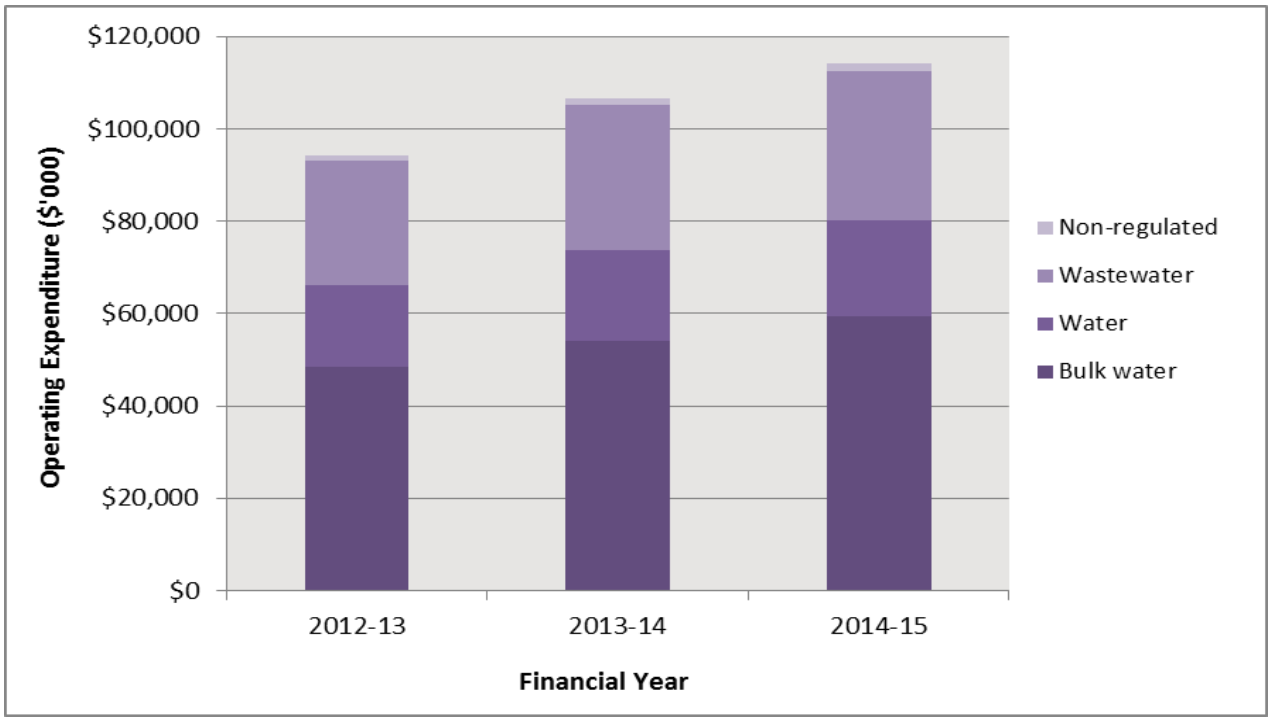
Over the price monitoring period, Logan City Council predicts that its total operating expenditure (excluding bulk water charges) will be $107.4 M. The total expenditure (excluding bulk water costs) for 2013-14 is $6.9 M higher than expenditure in 2012-13, whilst the 2014-15 forecasted expenditure is $2 M higher than 2013-14. SKM understands that the predominant reasons for these increases are the requirements to increase resources (including employees and contractors) following the transition from Allconnex. Also the quality and quantity of information accompanying the transfer was lacking and as a result 2013-14 budget is based on a better understanding of the requirements of the business. This has resulted in increased expenses budgeted for electricity.

Table 6 : Total operating expenditure (values in nominal $) (Logan City Council, 2013)

Service	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Bulk water	48,500.4	53,980.6	59,486.6
Water	17,560.8	19,823.9	20,549.8
Wastewater	27,069.5	31,294.5	32,503.5
Non-regulated	1,188.2	1,569.5	1,632.5
Total	94,318.9	106,668.5	114,172.4
Total less Bulk water	**45,818.5**	**52,687.9**	**54,685.8**

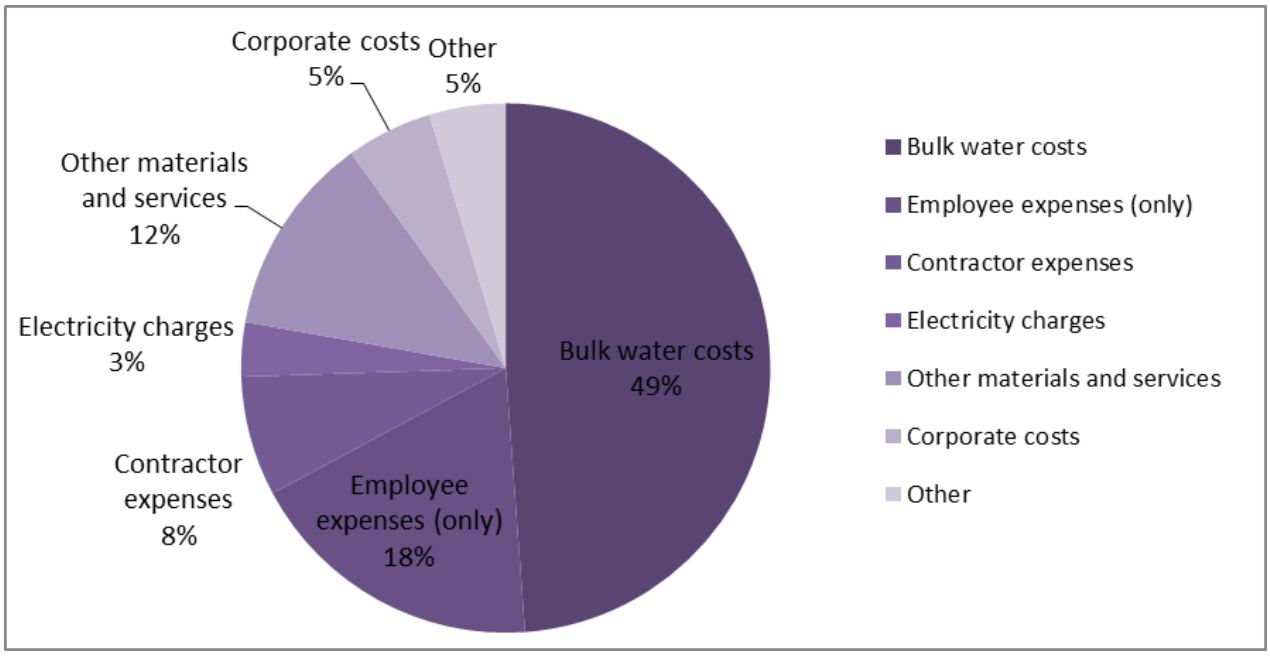
Figure 4-1 below provides an overview of the operating expenditure as detailed by Logan City Council in its submission to the Authority. Comparing the 2014-15 forecasted expenditure with the 2012-13 shows that the water services operating expenditure (excluding bulk water costs) increases by 17%; the wastewater services operating expenditure increases by 20% and non-regulated operating expenditure increases by 37%. Over the same period, expenditure on bulk water (driven by both demand and unit price increase from the bulk water supplier) will increase by approximately 23%.The primary cost driver for the variance between the 2013-14 and 2014-15 forecast expenditures is the cost of bulk water, which increases by $5.5 M.

Figure 4-1 : Total operating expenditure (Logan City Council, 2013)



Logan City Council has an operating expenditure budget of approximately $220.9 M (including bulk water charges) for the price monitoring period (financial years 2013-14 and 2014-15). **Figure 4-2** indicates the breakdown of the operating expenditure budget in terms of the main cost categories. As is evident from the chart, the cost of purchasing bulk water is the main operating expenditure item.

Figure 4-2 : Total operating expenditure for 2013-15 including non-regulated costs (Logan City Council, 2013)



The following tables (**Table 7**, **Table 8** and **Table 9**) contain the cost breakdown of water and wastewater, and non-regulatory services.

Table 7 : Water operating expenditure 2012-2015 (values in nominal $'000) (Logan City Council, 2013)

Item	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Bulk water costs	48500.4	53980.6	59486.6
Employee expenses	6428.0	6824.5	7100.4
Contractor expenses	1855.3	2824.5	2910.0
GSL Payments	0.0	0.0	0.0
Electricity charges	308.3	455.4	499.1
Sludge handling costs	0.0	0.0	0.0
Chemicals costs	3.6	45.0	46.8
Other materials and services	6187.1	5988.4	6160.0
Licence or regulatory fees	33.5	465.9	487.5
Corporate costs	2647.2	3148.3	3271.3
Non recurrent costs	0.0	0.0	0.0
Indirect taxes	97.8	71.9	74.7
Total water operating expenses	66061.2	73804.5	80036.4

Table 8 : Wastewater operating expenditure 2012-15 (values in nominal $'000) (Logan City Council, 2013)

Item	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Bulk water costs	0.0	0.0	0.0
Employee expenses	10622.9	11368.7	11828.3
Contractor expenses	2859.0	4668.2	4809.7
GSL Payments	0.0	0.0	0.0
Electricity charges	2125.6	2860.6	3135.2
Sludge handling costs	2325.1	2441.8	2515.1
Chemicals costs	997.6	1091.5	1135.2
Other materials and services	5947.5	6003.2	6216.1
Licence or regulatory fees	198.9	522.7	531.0
Corporate costs	1921.8	2285.6	2280.8
Non recurrent costs	0.0	0.0	0.0
Indirect taxes	71.1	52.2	52.1
Total wastewater operating expenses	**27069.5**	**31294.5**	**32503.5**

Table 9 : Non-regulated operating expenditure 2012-15 (values in nominal $'000) (Logan City Council, 2013)

Item	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Bulk water costs	0	0	0
Employee expenses	587.1	648.7	674.9
Contractor expenses	49.7	76	76
GSL Payments	0	0	0
Electricity charges	0	0	0
Sludge handling costs	0	0	0
Chemicals costs	102.3	110	114.4

Item	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Other materials and services	417.7	692.9	725.3
Licence or regulatory fees	0	5	5
Corporate costs	30.3	36.1	36.1
Non recurrent costs	0	0	0
Indirect taxes	1.1	0.8	0.8
Total non-regulated operating expenses	**1188.2**	**1569.5**	**1632.5**

4.2 Benchmarking

4.2.1 Comparability of data

SKM has completed a high level benchmarking of Logan City Council's operating costs against other water utilities located in Australia and Logan City Council's performance against other utilities is discussed below. However, due to the high level of this assessment and data availability, direct savings cannot be identified reliably from this benchmarking exercise. The various differences between water utilities affect the validity of benchmarking Logan City Council's operating expenditure against other utilities. SKM is aware of differences in Australian water markets which must be considered when comparing water utilities. Aspects such as climate (temperature, rainfall, storm events etc), topography, service areas, connection density, location (rural or urban), technologies used, asset age, regulations, bulk water supply, consumer expectations, years of operation, labour requirements, labour retention obligations arising from industry restructuring, levels of service and regulatory requirements are just some of the factors which influence operating expenditure.

Operating expenditure for Logan City Council was obtained from its 2013-14 Information Templates as submitted to the Authority. The operating expenditure data of other Australian utilities was obtained from the National Water Commission's National Performance Report 2011-12. A cost escalation index was applied to the National Water Commission data to adjust costs to 2013-14 dollars. The CPI obtained from the Australian Bureau of Statistics website of 2.4% for 2012-13 was applied along with an assumed CPI for 2013-14 of 2.4%. SKM is aware of the limitations of accuracy when comparing of 2013-14 operating expenditure of Logan City Council against other utilities which have been scaled up from 2011-12, however this is the most recent data available. The water operating expenditure used for comparison in this section includes bulk water costs.

Some of the comparable utilities used for Australian benchmarking are shown below in Figure 4-3 and Figure 4-4. Gosford City Council, Townsville Water, Cairns Water and Waste and Southern Water all have similar number of connections to Logan City Council for both water and wastewater. Australian benchmarking will focus on these utilities as the main comparators to Logan City Council.

Figure 4-3 : Number of water connections per utility

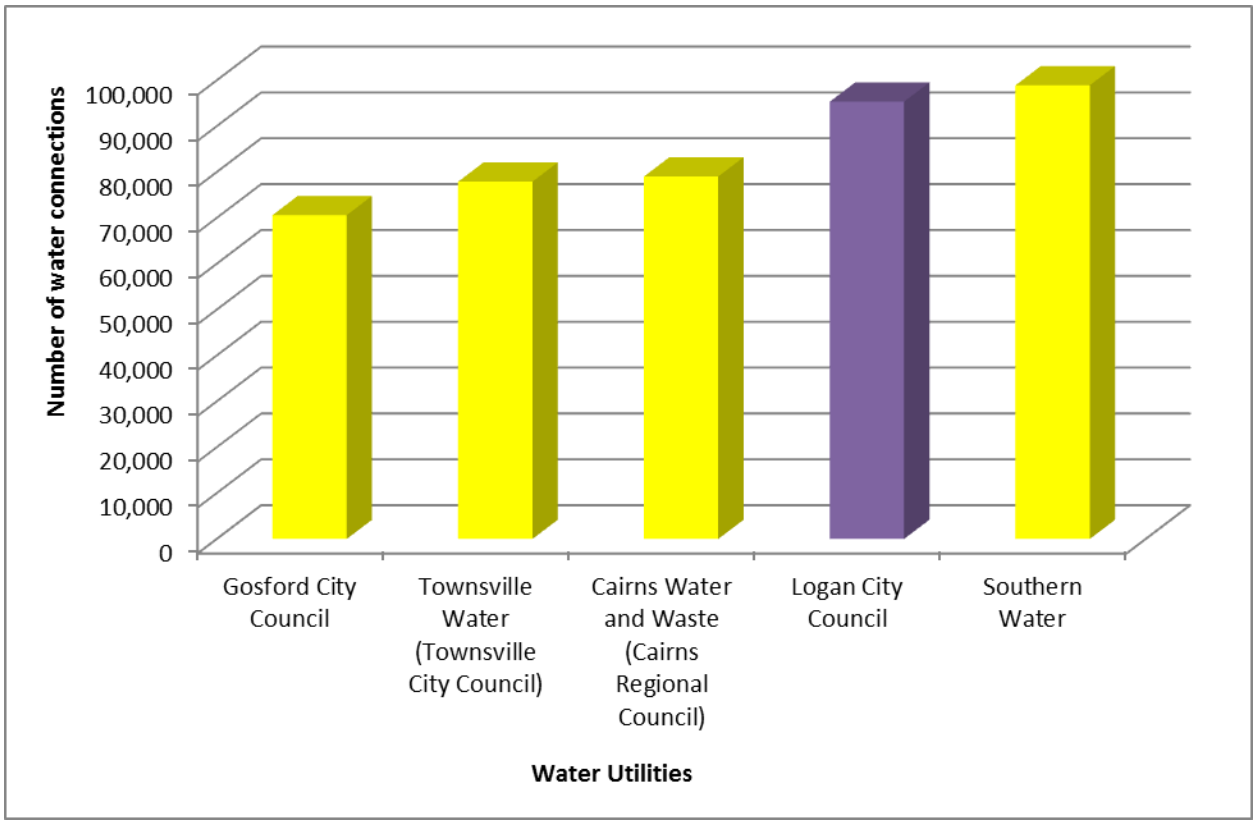
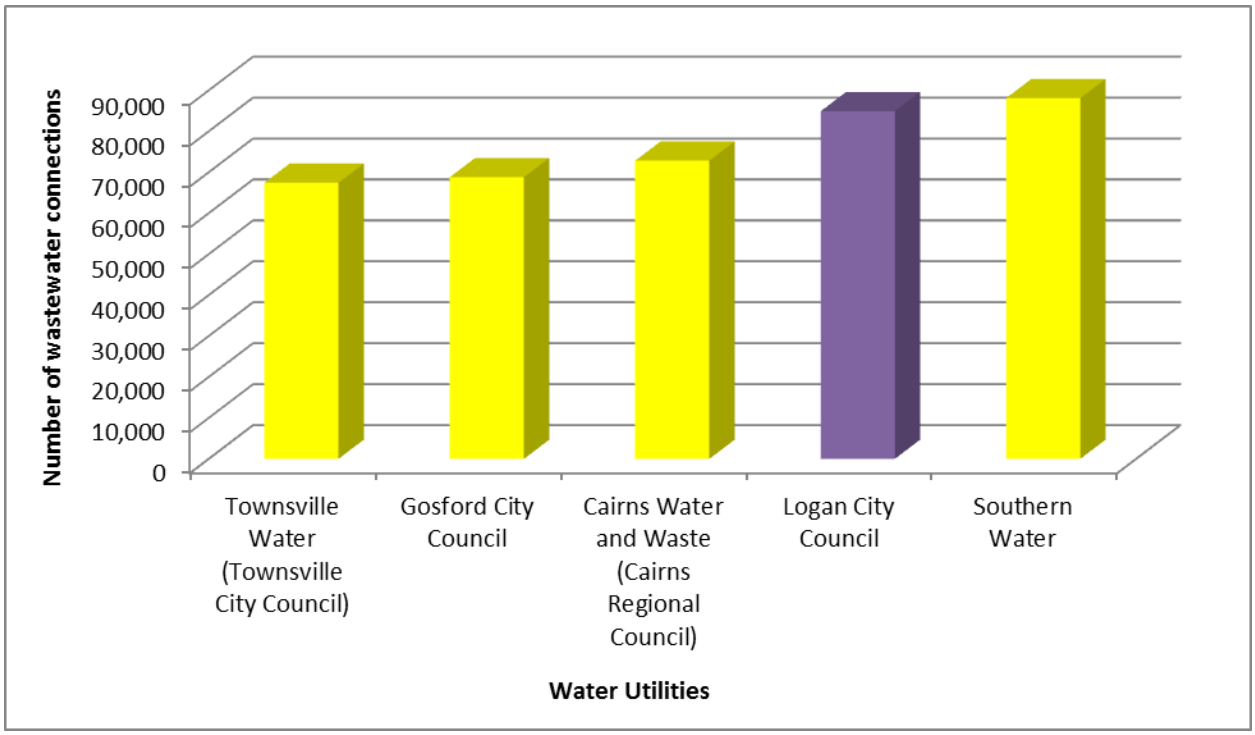


Figure 4-4 : Number of wastewater connections per utility



4.2.2 Australian benchmarking

A high level comparison of operating expenditure for Logan City Council against other comparable Australian water utilities is shown below. SKM has included benchmarks for Townsville Water, Gosford City Council, Cairns Water and Waste and Southern Water, as shown in **Table 10** below.

Table 10 : Logan City Council aggregate cost metrics for Australian comparison

Metric	Description	Logan	Gosford City Council	Cairns Water and Waste (Cairns Regional Council)	Townsville Water (Townsville City Council)	Southern Water
Customers	Total OPEX per total connection	583	351	388	362	386
	Water OPEX per water connection	774	361	324	407	344
	Wastewater OPEX per wastewater connection	43	52	56	53	42
Network size	Total OPEX per km of total pipeline	26,118	21,331	15,954	13,949	14,018
	Water OPEX per km of water pipeline	36,429	25,985	10,740	12,738	11,165
	Wastewater OPEX per km of wastewater pipeline	15,663	17,857	25,418	16,302	18,168

Analysis of the data provided in **Table 10** reveals that Logan City Council's operating expenditure for water services is higher than comparable Australian water utilities when normalised against both number of water connections and kilometres of water pipeline. The wastewater operating expenditure is lower than all comparable utilities shown in the table when compared against km of pipelines. Wastewater operating expenditure per wastewater connection is also very low compared to the other comparable entities.

When assessing the aggregate operating costs of water utilities around Australia, comparing expenditure per connection will tend to favour the larger utilities that have a large customer base or some density. Likewise, comparing expenditure with respect to network size will favour utilities with larger networks. In order to show the relative performance of Logan City Council's operating expenditure with its peers a two dimensional normalisation was used to develop a cost curve for water and wastewater services.

Figure 4-5 and **Figure 4-6** below compare the water and wastewater operating expenditure of Australian utilities using data sourced from the National Water Commission National Performance Report 2011-12 and scaled up using CPI for comparison with 2013-14 figures. The comparable water utilities which have been previously identified as having a similar number of connections (Townsville Water, Gosford City Council, Cairns Water and Waste and Southern Water) are shown on the graph as blue circles. The red square shows Logan City Council's operating expenditure in relation to connections per kilometre of pipeline. The green triangles show the other water utilities operating in South East Queensland to consider the effect bulk water charges may have on operating costs. SKM notes that bulk water charges in SEQ are considerably higher than other water utilities across Australia, however information on operating expenditure excluding bulk water charges is not available for comparison.

Figure 4-5 : Comparison of Logan City Council's operating expenditure on water services with other Australian water utilities

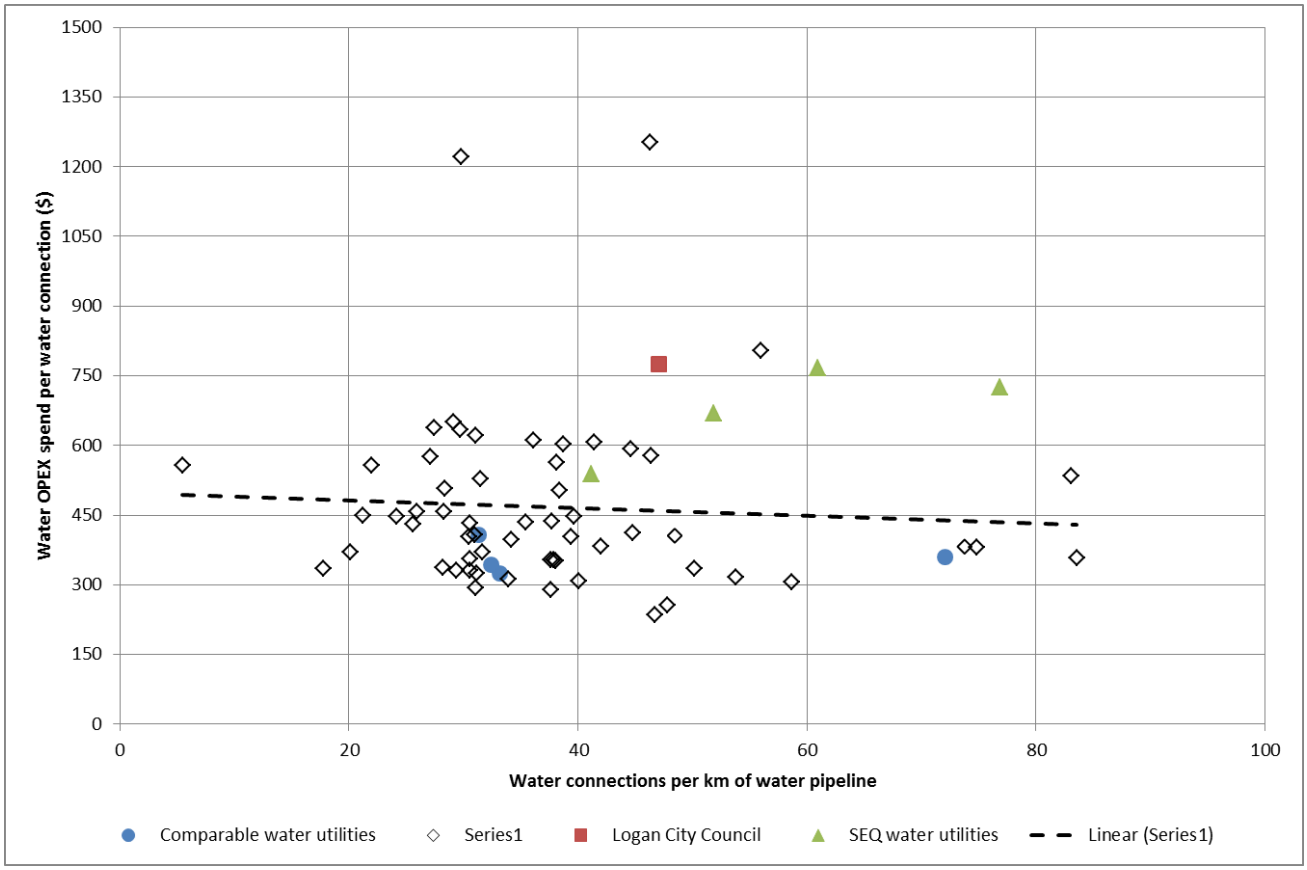


Figure 4-5 shows that Logan City Council has a similar connection density compared to most water utilities and three of the comparable utilities. It also shows that its operating expenditure is higher than all other comparable water utilities shown in blue, and is higher than Australian benchmarks for water operating expenditure. Water utilities operating in SEQ (green triangles) also show higher operating expenditure than most utilities, which is likely to be a result of high bulk water charges for the SEQ region.

In response to SKM's draft report, Logan City Council provided further benchmarking data as follows:

" A benchmarking exercise was undertaken with Townsville Water for the 2012/13 year. Townsville's operating costs excluding bulk water related costs was $14,010,268. Based on their total connections of 80,652 the average cost per connection is $173.71. Logan City Council compares favourably with Townsville Water with Operating Costs, excluding bulk water costs, of $17,560,800 and an average cost per connection of $173.18"

As the basis for this data has not been provided, SKM is unable to verify this statement.

Figure 4-6 : Comparison of Logan City Council's operating expenditure on wastewater services with other Australian water utilities

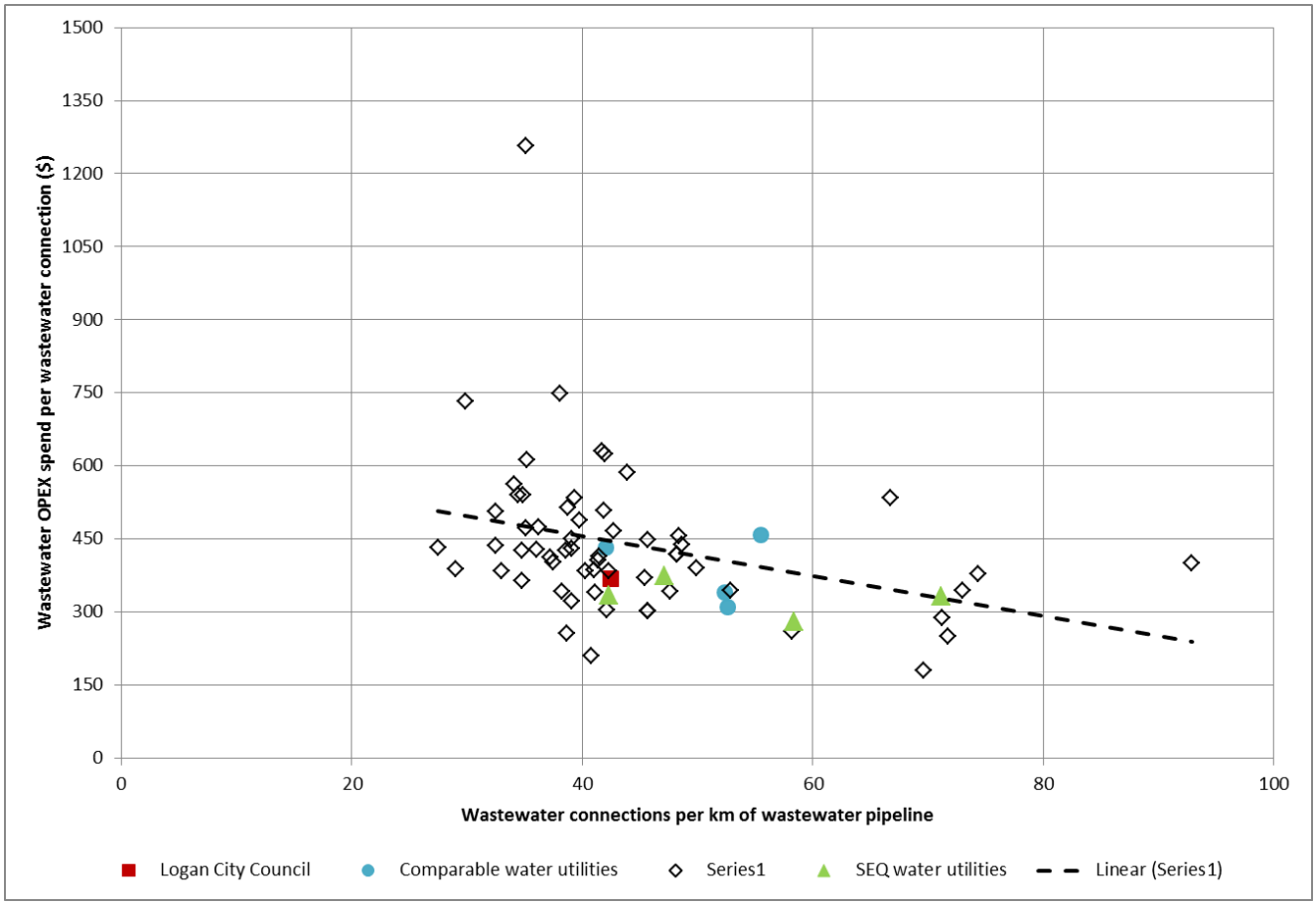


Figure 4-6 shows Logan City Council has a similar wastewater connection density and wastewater operating expenditure compared to other Australian water utilities. Logan City Council also has similar expenditure to the comparable utilities and is below the Australian benchmark. The green triangles on the graph highlight the water utilities operating in SEQ and shows that wastewater operating in SEQ is below Australian benchmarks.

SKM concludes from this high level benchmarking exercise that Logan Coast City Council has relatively high water operating expenditure when compared to other water utilities and wastewater operating expenditure is below the Australian benchmarks. SKM notes that bulk water charges in the SEQ region are likely to attribute to the higher operating expenditure for Logan City Council's water services.

4.3 Sample selection

In undertaking a review of prudency and efficiency of operating expenditure the Authority has selected a sample of costs for detailed investigation. The sample is shown in **Table 11** below.

The selection of the sample is based on the categories that attract the largest portion of operating expenditure and includes both fixed and variable costs. Bulk water costs, the largest of operating expenditure however is excluded from our sample as this cost is determined by other agencies and are not within the control of Logan City Council. Our sample accounts for 91.6% of the total 2012-13 operating expenditure (less bulk water and non-regulated services) for 2012-13 and almost 91% over the forecast period (2013-14 and 2014-15).

Table 11 : Operating expenditure sample selection for Logan City Council Water and Wastewater Services

Category	Service	Operating Expenditure ($'000)		
		2012-13	2013-14	2014-15
Corporate costs	Drinking water	2,647.2	3,148.3	3,271.3
	Wastewater via sewer	1,822.8	2,167.9	2,165.8
	Trade waste	99.0	117.7	115.0
	Total	**4,569.00**	**5,433.90**	**5,552.10**
Employee costs	Drinking water	6,428.00	6,824.50	7,100.40
	Wastewater via sewer	9,527.90	10,182.80	10,594.50
	Trade waste	1,095.00	1,185.90	1,233.80
	Total	**17,050.90**	**18,193.20**	**18,928.70**
Contractor costs	Drinking water	1,855.30	2,824.50	2,910.00
	Wastewater via sewer	2,671.30	4,367.80	4,500.20
	Trade waste	187.70	300.40	309.50
	Total	**4,714.30**	**7,492.70**	**7,719.70**
Electricity costs	Drinking water	308.30	455.40	499.10
	Wastewater via sewer	1,985.30	2,671.80	2,928.30
	Trade waste	140.30	188.80	206.90
	Total	**2,433.90**	**3,316.00**	**3,634.30**
Other Materials & Services	Drinking water	6,187.10	5,988.40	6,160.0
	Wastewater via sewer	4,800.00	4,661.70	4,822.5
	Trade waste	1,147.5	1,341.5	1,393.6
	Total	12,134.60	11,991.60	12,376.10
Total Sample		**40,902.70**	**46,427.40**	**48,210.90**
Total operating expenditure, less bulk water and non-regulated services		**44630.3**	**51,118.40**	**53,053.30**
Percentage		**91.6%**	**90.8%**	**90.9%**

Source: 2013/15 Information Template

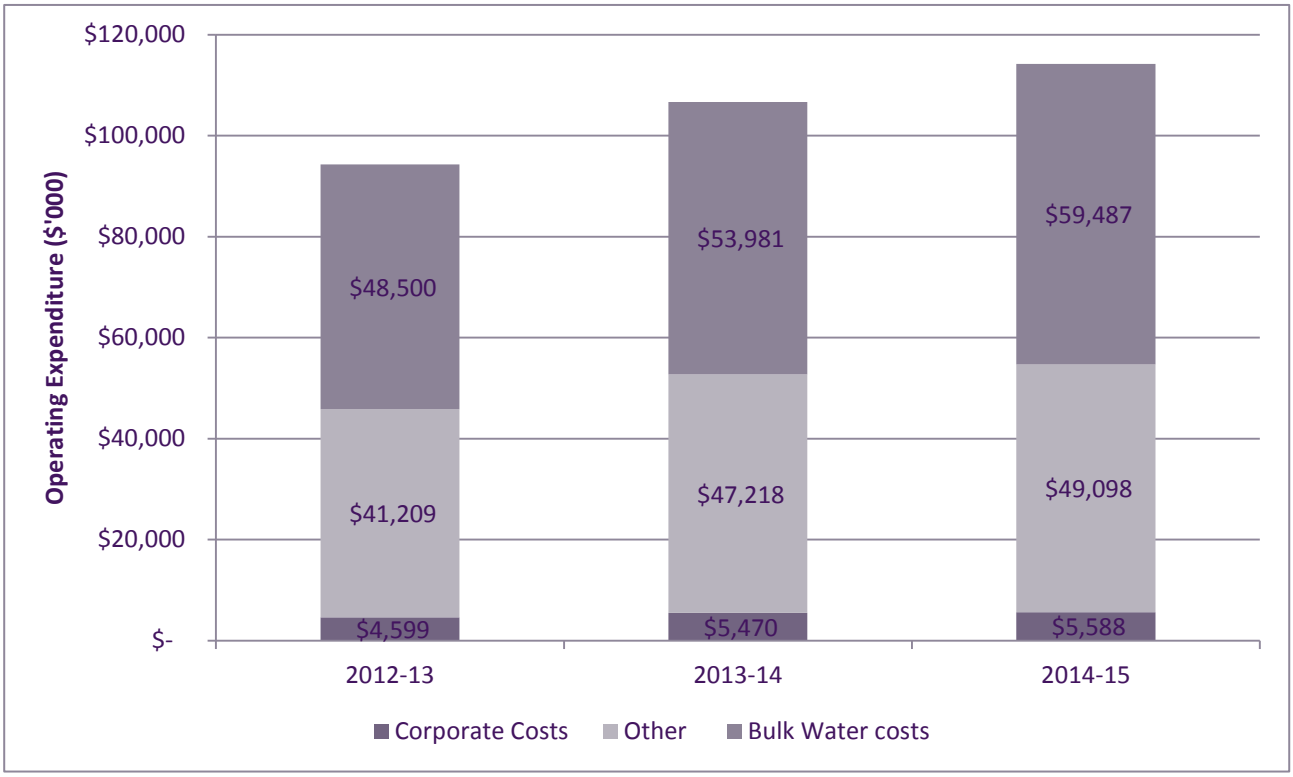
4.4 Corporate costs

This section analyses Logan Water's corporate costs in total for the year-to-year budget changes. It then uses this analysis, with available benchmarks, to assess the prudence and efficiency of corporate costs, and to identify potential efficiency savings.

4.4.1 Costs in total

Corporate costs as specified in the *Information Template* comprised 4.9% of Logan Water's operating costs in 2012-13, and represent 10% of operating costs once bulk water costs are excluded. The budgeted / forecast annual changes in corporate costs, bulk water costs, and other operating costs over the next two years are shown in **Figure 4-7**.

Figure 4-7 : Corporate Costs and Total Operating Costs (nominal $'000)



The year-to-year changes in the proportions of corporate costs are shown in **Table 12 :**

Table 12 : Changes in Corporate Costs

	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Corporate Costs	4,599	5,470	5,588
Total Operating Costs	94,308	106,669	114,172
Percentage of Total Operating Costs	4.9	5.1	4.9
Percentage of Total Operating Costs less Bulk Water Costs	10.0	10.4	10.2

Corporate costs, as a percentage of total operating costs, slightly increased from 2012-13 to 2013-14, and then are forecast to decrease in 2014-15.

Definition and Comparability

According to the *Logan Water Price Monitoring Information Return 2013-15,* the majority of Logan Water's corporate functions are carried out by Logan City Council in accordance with a Service Level Agreement (SLA). Corporate services provided by the Council include:

- Administration and Risk Management

- Record Management
- Finance
- Information Services
- People and Culture
- Community Engagement and Marketing
- Outcomes and Performance
- Customer Service

However, to align with the Authority's definition of corporate costs, there are other costs within Logan Water which could be considered as corporate costs. These are the costs incurred by its internal management team and corporate functions in relation to strategies, environmental management, legal services and insurance. These costs are included as operating costs in its Information Template.

Corporate costs incurred within Logan Water are analysed in Section 4.4 and are not included in the corporate costs analyses in the other sections. A time series of the annual changes in corporate costs is provided in **Table 13.**

Table 13 : Corporate Costs in Aggregate (nominal $'000)

Component	2012-13 Est. Actual ($'000)	2013-14 Budget ($'000)	2014-15 Forecast ($'000)
Corporate costs	4,599	5,470	5,588
less Non-regulated services corporate costs	30.3	36.1	36.1
Regulated Corporate Costs	4,569	5,434	5,552
Increase over previous year	-	865	118
Percentage Increase over previous year	-	18.9%	2.2%

Allocation to Non-regulated Costs

In the entity's Information Template, there are separate totals for corporate costs allocated to each of the regulated services: water and wastewater; and to non-regulated services.

The excluded costs of non-regulated services comprise a small proportion of either the total operating costs or the total corporate costs, as shown in **Table 14**. Therefore, SKM considers the quantum of the allocation of non-regulated costs to be immaterial.

Table 14 : Cost Allocations to Unregulated Services

	2012-13 Est. Actual	2013-14 Budget	2014-15 Forecast
Percentage total costs allocated to unregulated services	1.3%	1.5%	1.4%
Percentage corporate costs allocated to unregulated services	0.7%	0.7%	0.7%

Corporate costs in the Information Template differ slightly from corporate costs in the *Price Monitoring Information Return 2013-15* as show in **Table 15**. Logan Water has advised that the differences are because of rounding and SKM considers that they are immaterial.

Table 15 : Corporate Costs

	2012-13 Est. Actual ($'000)	2013-14 Budget ($'000)	2014-15 Forecast ($'000)
Corporate Costs in the Information Template	4,569	5,434	5,551

	2012-13 Est. Actual ($'000)	2013-14 Budget ($'000)	2014-15 Forecast ($'000)
Corporate Costs in the Price Monitoring Information Return 2013-15	4,600	5,400	5,600
Differences (due to rounding)	-31	34	-49

4.4.2 Cost of each function

For each corporate function, the costs in the base year (2012-13) and the budgeted costs in 2013-14 and in 2014-15 are shown in **Table 16**.

Table 16 : Cost of Each Corporate Function (nominal $)

	2012-13 Est. Actual ($'000)	2013-14 Budget ($'000)	2014-15 Forecast ($'000)
CEO's Office & Directorate		769	785
Administration		484	494
Records Management		120	123
Finance		1,214	1,239
Information Services		1,462	1,493
People and Culture		545	557
Outcomes and Performance		56	57
Marketing / Community Engagement		120	123
Customer Service		340	347
IT Consulting Costs (Direct)	31	360	371
Unallocated Corp Costs	4,599		
Total	4,631	**5,470**	**5,588**
Increase over Previous Year		871	118
% Increase over Previous Year		18.9%	2.2%

SKM has been advised that the 2012-13 budgets were estimated at a high level (no costs breakdown can be provided by Logan Water) prior to Logan Water returned to Logan City Council from Allconnex Water on 1 July 2013. The 2013-14 budgets are based on cost information provided by managers of corporate programs and branches which provide services to Logan Water.

The 2014-15 figures are derived from the 2013-14 numbers plus an overall cost escalation factor of 2.2% (the cost escalation factor for IT consulting costs is 3%, for the rest the escalation is 2.1%). SKM has noted that the 2.2% increase is due to a 4% increase in corporate labour costs based on its Certified Agreement (corporate labour costs account for 54% of total corporate costs) while there is no forecast increase in corporate non-labour costs in 2014-15.

Corporate costs by cost elements

The budgeted 2013-14 SLA costs by cost elements are given in **Table 17**. Labour costs accounted for 54% of the overall costs and the budgeted average employee cost is $93,813.

Table 17 : Corporate Costs by Cost Elements (nominal $)

Branch	2013-14			
	Labour Costs ($'000)	FTE No.	Non-labour Costs ($'000)	Total Budget ($'000)
CEO's Office & Directorate	467	1.9	302	769
Administration	232	3.0	252	484
Records Management	84	1.1	36	120
Finance	878	10.5	336	1,214
Information Services	624	6.7	838	1,462
People and Culture	266	3.1	280	545
Outcomes and Performance	41	0.6	15	56
Marketing / Community Engagement	74	0.7	46	120
Customer Service	303	4.0	37	340
IT Consulting Costs (Direct)	0		360	360
Total	**2,969**	**31.7**	**2,501**	**5,470**

The $360,000 IT consulting costs includes:

- $30,000 - Product Quality program for data management development and installation, and field data collection for trade waste.
- $80,000 - Business and Customer Management program for development of reporting framework, knowledge database and customer management system database.
- $250,000 - Water Asset Management program for development of strategic asset management system.

Corporate costs allocation methodology and drivers

The SLA defines the levels of services expected and the costs to be charged to the Logan Water.

According to Logan City Council, the corporate cost allocation is generally based on specific drivers decided by the managers of relevant corporate programs and branches. And in most cases the drivers are not based on FTEs. SKM has therefore calculated a weighted average ratio for each corporate cost to provide an indication of how there costs are allocated, as shown in **Table 18.**

Table 18 : Cost Drivers

Corporate Function	Drivers	Weighted Average Cost Allocation Ratio in 2013-14
CEO's Office& Directorate	% allocation	20.6%
Administration & Risk Management	FTE number / number of purchase orders and tenders / number of stock issues	6.2%
Records Management	Number of incoming documents	5.2%
Finance	Time spent / transaction volume / evenly assigned / number of position / FTE number	18.1%
Information Services	Network users	11.4%
People and Culture	FTE number / evenly assigned / number of trainees	9.3%
Outcomes and Performance	Evenly assigned	9.4%

Corporate Function	Drivers	Weighted Average Cost Allocation Ratio in 2013-14
Marketing / Community Engagement	% allocation	3.6%
Customer Service	Equivalent FTE service provided	9.1%
IT Consulting Cost (Direct)	N/A	N/A

4.4.3 Costs at Council Level (SLA Related Cost Centres)

As Corporate Costs are allocated through a SLA from the Logan City Council, SKM has reviewed the Council's costs and FTEs budgets in 2013-14* as shown in **Table 4.19.** Labour costs accounted for 57% of the overall costs and the budgeted average employee cost is $86,683.

Table 4.19: Council's Operating Costs

Branch	2013-14			
	Labour Costs ($'000)	FTE No.	Non-labour Costs ($'000)	Total Budget ($'000)
CEO's Office & Directorate	2,190	9	1,417	3,607
Administration	3,638	48.5	3,940	7,578
Records Management	1,571	22	664	2,235
Finance	4,693	58	1,796	6,489
Information Services	5,282	59	7,098	12,380
People and Culture	2,768	33	2,913	5,681
Outcomes and Performance	657	6	236	892
Marketing / Community Engagement	1,981	20	1,222	3,203
Customer Service	3,225	44.5	393	3,618
Total	**26,005**	**300**	**19,678**	**45,683**

* Logan City Council has advised that 2012-13 operating data of the Council are not available.

SKM has noted that the Logan City Council has allocated 12% of its total operating budget to the Logan Water

4.4.4 Logan water internal corporate costs

Corporate costs incurred within the Logan Water business are classified as direct operating costs in the *Information Template* and shown in **Table 20**.

Table 20 : Internal Corporate Costs

	2012-13 Estimated Actual ($'000)	2013-14 Budget ($'000)	2014-15 Forecast ($'000)
Management Costs	633	655	681
Legal Expenses	93	163	139
Insurance Premiums & Excess Payments	360	405	417
Strategic Planning	211	356	369
Environmental Management	147	151	155
Financial Audit Costs	62	63	65
Memberships - Water Business Organisations	78	80	82

	2012-13 Estimated Actual ($'000)	2013-14 Budget ($'000)	2014-15 Forecast ($'000)
Total	**1,584**	**1,873**	**1,908**
Increase over Previous Year		289	36
% Increase over Previous Year		18.2%	1.9%

Logan City Council has advised that the increase of $289,000 or 18.2% from 2012-13 to 2013-14 is mainly because of:

- The increase in Management fee of $22,000. This is a salary increase under a contract arrangement.
- The increase of legal services fee of $70,000. Legal services are obtained through external solicitors and it is budgeted on an as needs basis. Legal expenses are predominantly associated with infrastructure agreements on development applications. An increase in the number of these agreements is anticipated in 2013-14 compared to 2012-13.
- The increase of insurance premiums of $45,000. Insurance premiums vary year to year depending on the changes to risk profile and brokers.
- The increase of strategic planning budget of $145,000. Additional consultancies required in 2013-14 to complete strategic planning requirements, in particular, Netserv Plan Part B.

4.4.5 Prudence and efficiency

To assess whether Logan Water's budgeted and estimated corporate costs for 2013-14 and 2014-15 are at a level which is prudent and efficient, they were compared with:

1) Corporate costs of Allconnex Water provided in the Authority's SEQ Interim Price Monitoring for 2011/12 Part B
2) A range of corporate costs ratios incurred by other utilities - having regard for jurisdictional and other factors which would affect the validity of those comparisons

In undertaking this analysis, SKM was aware of, and made allowances for, the limitations of benchmarking. These limitations include:

1) Differences in organisational structures and in the definition of corporate costs between Australian utilities
2) The relative size and maturity of the organisations
3) The effects of inflation when comparing costs in absolute terms

Regarding efficiency savings, SKM noted the results of the Authority 2011-12 review of Allconnex Water in which the Authority was of the view:

- *That operating efficiencies of at least 2% per annum in non-bulk operating costs would be achievable in 2010-11 (compounding annually). Therefore, the Authority set Allconnex Water's operating efficiency targets of 4% in 2011-12 and 6% in 2012-13, consistent with the targets imposed by the Authority on the other two SEQ entities*
- *That the pursuit of efficiencies should continue despite the disestablishment of Allconnex*
- *SLAs costs should not be excluded from review and should not be viewed as fixed costs but subject to review for potential efficiencies*

SKM also noted that Logan City Council has advised that the 2013-14 year will be a period for Logan Water to reintegrate into the Logan City Council with the creation of a new structure, employment of required staff and the development of required work programs. Therefore, savings options have not been developed. However, it is envisaged that work of this nature will be undertaken in future years.

SKM considers that in consolidating Logan Water back into the Logan City Council, economies of scale can be achieved in some the operations of its SLA cost centres. This should lead to some efficiency gains in the total operating costs of the Council and consequently the SLA costs to the Logan Water.

4.4.6 Comparison between Allconnex Water and Logan Water

Logan City Council was one of the three participating councils of Allconnex Water. According to the Participation Agreement, Logan City Council was entitled to receive 27.21% of the participation returns from Allconnex Water (Gold Coast City Council61.65%, Redland City Council 11.14%).

A comparison between Logan Water and Allconnex Water is shown in **Table 21**.The relevant Allconnex Water costs information is from the Authority's *SEQ Interim Price Monitoring for 2011/12 Part B*.

Table 21 shows that, on a percentage of total cost basis (assuming a 27.21% interest), Logan Water's corporate costs and total operating costs are proportionally lower than those of Allconnex Water. These slightly lower costs (than those of Allconnex Water) may indicate some efficiency gain has been obtained through the dis-establishment of Allconnex Water. However, it should not be inferred from this that Logan City Council is operating in an efficient or in-efficient way per se when considering industry good practice benchmarks. All that can be concluded is that Logan Water is operating more efficiently than Allconnex water. That is to say, the data does not support an assessment of overall efficiency compared to industry good practice benchmarks. SKM is of the view, from its previous experience of carrying out similar assessments, that efficiency saving targets should be capable of being established for the SLA and the SLA costs should be reviewed in accordance with relevant benchmarking information available. However, it is noted from Table 22 below concerning corporate cost comparisons between comparable entities, that Logan Water's corporate costs are lower, as a percentage of overall costs, than all its benchmark peers. It may therefore be reasonably assumed that any efficiency gains are likely to be relatively low in percentage terms.

Table 21 : Comparison between Allconnex Water and Logan Water

	2012-13 ($'000)	2013-14 ($'000)	2014-15 ($'000)
Allconnex Water Corporate Costs	28,970	28,450	n/a
Allconnex Water Operating Costs	418,150	447,090	n/a
Allconnex Water Bulk Water Costs	195,420	225,080	n/a
Logan Water Corporate Costs	4,569	5,434	5,551
Logan Water Operating Costs	93,120	105,099	112,540
Logan Water Bulk Water Costs	48,500	53,981	59,487
Logan Water Corporate Costs / Allconnex Water Corporate Costs	15.8%	19.1%	-
Logan Water Operating Costs / Allconnex Water Operating Costs	22.3%	23.5%	-
Logan Water Operating Costs exc. Bulk Water Costs / Allconnex Water Operating Costs exc. Bulk Water Costs	20.0%	23.0%	-

4.4.7 Top-down benchmarks

For the SEQ retail distribution entities, the ratio of corporate costs to total operating costs after bulk water costs are excluded provides a useful 'top down' indicator of whether their corporate costs are efficient when compared with those of water utilities whose bulk water costs are significantly lower.

A comparison of the entity's corporate costs as a proportion of operating costs with other urban water utilities in Australia is as follows:

Table 22 : Corporate Cost Comparison

Utility	Annual Operating Expenditure	Corporate Costs/ Operating Costs	Comment
Logan Water	$51 M	14.3%	Excludes bulk water costs 2013-14 budgets Includes in-house and SLA costs
Sydney Water	$901 M	19.8%	Excludes bulk water costs 2011-12 actuals IPART review found scope for significant efficiency gains
Gold Coast Water	$107 M	23.6%	Excludes bulk water costs 2012-13 estimated actuals Includes in-house and SLA costs
Queensland Urban Utilities	$464 M	19.8%	Excludes bulk water costs 2012-13 estimated actuals Corporate costs said to align with the Authority's definition
Allconnex Water	$380 M	14.3%	Excludes bulk water costs 2011-12 budget In transition from Council SLAs
Unitywater	$243 M	33.8%	Excludes bulk water costs 2013-14 forecast Corporate costs are said to align with the Authority's definition
Hunter Water	$122 M	28.8%	Includes customer service function IPART review sought continuing efficiency of 0.25%, including from upgrading business systems

(Comparisons are not available for the three Melbourne utilities as the ESC review does not have sufficient detail.)

4.4.8 Cost escalations

Logan City Council's *Budget Parameters 2013-14* specifies that the cost escalation factor is 2.2% for services and materials, and 3.5% for employee costs. The corporate costs increase of 18.9% in 2013-14 is significantly higher than either the 2.2% or the 3.5%. Logan Water has advised that the 2012-13 base year figures were estimated at a high level prior to Logan Water returned to Logan City Council from Allconnex Water on 1 July 2013. The 2013-14 budgets are based on cost information provided by managers of corporate programs and branches of which provides services to Logan Water and no costs breakdown in 2012-13 can be provided. As such, SKM could not carry out a detailed analysis on cost increases from 2012-13 to 2013-14. The cost escalation factor of 2.2% from 2013-14 to 2014-15 is considered reasonable.

4.4.9 Conclusion

In the absence of sufficient benchmarking information and base year data, SKM concludes that Logan City Council's corporate costs budgets are prudent, but could not assess their efficiency, SKM is of the view that, based on experiences with other entities and industries, operating efficiencies of 2% per annum in corporate costs would be achievable in 2013-14. Accordingly, the recommended corporate costs budgets are in **Table 23**.

Table 23 : Recommended Corporate Costs

	2013-14 ($'000)	2014-15 ($'000)
Corporate Costs in the Information Template	5,434	5,551
Efficiency Targets	109	111

	2013-14 ($'000)	2014-15 ($'000)
Efficiency Target as a percentage of Corporate Costs	2.00%	2.01%
Recommended Corporate Costs	5,325	5,440

4.5 Employee expenses

The labour cost budget for this item includes all staff Logan City Council employs in the operation of their water supply and wastewater treatment assets. It does not include staff employed by the Logan City Council that may provide corporate services to the water and wastewater business. The allocation of costs for such corporate services is governed by Service Level Agreements with Council and is accounted for under Corporate Costs in the Authority's template.

Logan City Council's water and wastewater staffing levels have remained constant since the return of the water and wastewater business from Allconnex when 194 staff returned from Allconnex to the Logan City Council. 184 staff were allocated to the water business in July 2012, with the other previous Allconnex staff (10) going into positions in the Council's corporate areas. In addition, 25 vacant positions were also transferred from Allconnex to the Logan City Council water business. Logan City Council at that time determined that to undertake its water supply and wastewater services responsibilities, 241 staff are required. The requirement for 241 FTEs was determined by senior managers of the water and wastewater business in consultation with Council with based on the previous number of staff that Logan City Council employed prior to the formation of Allconnex as well as the increased service level, regulatory and environmental requirements when Logan City Council resumed responsibility for the water and wastewater business. Thus 57 vacancies existed when Logan City Council took over responsibilities for the water and wastewater business from Allconnex.

Of the 241 positions, 110 FTEs are employed in water operations, 86 in water business and the remaining 45 in water infrastructure. This level of staffing is expected to remain constant over the forecast period and in its submission, Logan City Council states that "there has been no increase in staff forecast for the 2013/14 and 2014/15 period" and that "employee costs have been allocated to operating costs and capital expenditure in accordance with work undertaken. An increase of 3.5% has been applied in 2013/14 and 4% in 2014/15."

In response to SKM's Request for Information, Logan City Council provided details of employee expenses (salaries and wages, on-costs and overtime expenses by service branch). This is shown in **Table 24**. These include employee expenses incurred in providing non-regulated services (laboratory). It shows that over the whole water and wastewater business, overtime costs account for less than 7% of total employee expenses and is generally expected to fall over the forecast period as Council has indicated a desire to limit the amount of overtime. Water Infrastructure is an exception however the amount of overtime incurred by this division is extremely low.

Table 24 : Employee expenses

Employee Expenses	**$'000**			
Division	**Salaries & Wages**	**On-Costs**	**Overtime**	**Total**
Logan City Council - Water Services				
2012/13	10,599.10	5,857.10	1,181.70	17,637.90
% of total	60.1%	33.2%	6.7%	
2013/14	12,684.00	5,005.60	1,152.20	18,841.80
% of total	67.3%	26.6%	6.1%	
2014/15	13,191.30	5,214.00	1,198.30	19,603.60
% of total	67.3%	26.6%	6.1%	
Branch				
Water Operations				

Employee Expenses	$'000			
Division	**Salaries & Wages**	**On-Costs**	**Overtime**	**Total**
2012/13	5,200.60	2,398.30	672.20	8,271.10
% of total	62.9%	29.0%	8.1%	
2013/14	5,830.10	2,261.40	687.00	8,778.50
% of total	66.4%	25.8%	7.8%	
2014/15	6,063.30	2,355.60	714.50	9,133.40
% of total	66.4%	25.8%	7.8%	
Water Business				
2012/13	4,663.80	2,181.70	428.80	7,274.30
% of total	64.1%	30.0%	5.9%	
2013/14	5,475.40	2,142.00	418.40	8,035.80
% of total	68.1%	26.7%	5.2%	
2014/15	5,694.40	2,231.20	435.20	8,360.80
% of total	68.1%	26.7%	5.2%	
Water Infrastructure				
2012/13	1,403.70	648.50	40.30	2,092.50
% of total	67.1%	31.0%	1.9%	
2013/14	1,378.40	602.30	46.80	2,027.50
% of total	68.0%	29.7%	2.3%	
2014/15	1,433.50	627.20	48.70	2,109.40
% of total	68.0%	29.7%	2.3%	
Non-regulated				
2012/13				587.09
2013/14				648.66
2014/15				674.89

4.5.1.1 Contractor costs

Contracting services include consultancies in infrastructure planning, master planning, network modelling, asset management, water quality management, environmental management, business systems and customer service management. Also included are contracts for network and facilities maintenance services, condition assessment, information technology services.

Contractor expenses have been budgeted based on expected work requirements. The contractor expenses incurred in 2012-13 are shown in **Table 25**.

Table 25 : 2012-13 Contractor expenses

Description	Water	Sewer	Trade Waste	Non-Regulated	Total
Agency Personnel Costs	157,464	118,779	8,214		284,457
Management Consultancies	82,293	68,800	4,862		155,955
Alliance Consultancies	471,603	844,782	59,013		1,375,398
Planning & Environmental Consultancies		59,478	4,203		63,681

Description	Water	Sewer	Trade Waste	Non-Regulated	Total
Engineering Consultancies	105,535	88,231	6,235		200,000
Other Consultancies	27,979	6,393	342		34,714
Maintenance Services	317,047	748,251	52,874	9,583	1,127,756
Security	808	53,924	3,810		58,543
Electrical Maintenance	62,553	123,037	8,694	429	194,713
Other Services	341,983	313,805	22,081	39,657	717,526
Minor Contracts		453			453
Major Contracts	288,030	245,347	17,337		550,714
Total	1,855,295	2,671,280	187,666	49,669	4,763,910
Regulated Contractor Expenses					4,714,241

In 2012-13, the budgeted provision of contractor expenses was not incurred as a number of contractors and consultants budgeted for in 2012-13 were not engaged due to the need to concentrate on the re-establishment of the water and wastewater business in the council organisation. Only baseload contractor works were actually commissioned. Therefore the actual contractor costs incurred in 2012-13 was below the budget. As these delayed works continue to be required, these contractors and consultants expenses have been again budgeted for 2013-14.

In its response to SKM's draft report, Logan City Council states that a significant proportion of these costs are regular costs expected to be incurred every year. There are also a number of costs that reflect the transitional state of the water and wastewater businesses and that a large amount of work needs to be undertaken over the next couple of years to develop and implement the management and information systems that are required of a mature water business. It is also anticipated that in the area of asset management the renewals budgets will increase substantially over the next 5 years. To effectively manage this, the level of work to be undertaken in condition assessment and risk management needs to be increased. Other major system development required over the next couple of years includes Environmental Management, Health and Safety Management, Energy Management, Drinking Water Quality Management, Trade Waste Management, System Leakage Management.

4.5.2 Provided documentation

The key reference documents used for this review are:

- Logan City Council Price Monitoring Information Return 2013-15, 30 Sep 2013
- 8600687-Amended QCA Data Template - Sept 2013-v1.xls
- img-X15120007-0001.pdf
- RFI LCC 016 - 30 Opex.xls
- 8602443-QCA RFI 36 - 49 Operating Costs-v1.xls
- Budget Guide 2013/14
- Email from [redacted] Logan City Council - RFI 036 – 049, sent Wednesday, 9 October 2013
- Budget 2012-13 Cost Allocations.pdf
- Email from [redacted], Logan City Council – Operating Cost questions, sent Wednesday, 16 October 2013
- Email from [redacted], Logan City Council – Operating Cost questions, sent Wednesday, 21 October 2013
- LCC_DOCS-#8656362-v1-Water_Business_-_Vacant_positions_as_31_October_2013.xls

4.5.3 Prudency

SKM understands that the expenditure on employee costs is used to meet the following requirements:

- Legal obligations
- Operations and maintenance of existing infrastructure

Logan City Council is required to supply drinking water and treat wastewater to meet license conditions for public health and environmental discharge limitations. The engagement of labour to operate and maintain the infrastructure under the responsibility of Logan City Council is required to fulfil its obligations and therefore SKM is of the opinion that this expenditure is prudent.

4.5.4 Efficiency

With the transition from Allconnex Water, SKM understands that, over the 2012-13 period, Logan City Council sought to fill a number of vacancies that transferred over from Allconnex as well as the vacancies that were identified by Logan City Council taking into consideration the increased responsibilities identified. These vacancies were progressively filled over the year while the budget was determined on the assumption that all these vacancies were open for 6 months ie all vacant positions were filled for 6 months of the year. This resulted in some position being costed for only part of the year. The data in the template for 2012-13 was provided based on extrapolated actual January 2013 year-to-date expenses rather than the 2012-13 budget.

In discussions with Logan City Council, SKM was informed that the 2013-14 budget has not taken into consideration any vacancy factors. The reason provided for this was that council policy is for all vacancies to be filled shortly after they become available or the requirement for that position will be reviewed. As a result, when a vacancy becomes available, Logan City Council will attempt to fill it as soon as possible or engage a hire agency to fill that position temporarily. Arrangements for Agency Staff through Logan City Council People and Culture are such that they are generally at a lower or equivalent cost to permanent staff except for senior management roles. As at 31 October 2013, there were a total of eight vacancies in the Logan City Council water and wastewater business.

SKM understands that one position was filled in November 2013 and that the total number of vacancies in the business will fall as recruitment continues. SKM understands that a single position has been filled twice in the last 16 months with incumbents leaving within a short period largely due to the level of remuneration. SKM considers that, given the state of the employment market, the total number of vacancies will reduce. However, with staff turnover, SKM is of the opinion that for the 2013-14 year the average staff vacancy rate will be approximately 6 FTE's or about 2.5% of total FTE's. In 2014-15, with staff turnover SKM has estimated an average vacancy of 5 FTE's or about 2% of total FTE's.

The 2012-13 budget that Logan City Council prepared was undertaken prior to the commencement of Logan City Council's water business on 1 July 2012. The 2012-13 budget did not included payroll tax details and assumed that all vacant positions were filled for only 6 months of the year. It also underestimated the percentage of time that the alliance planning staff provided to the water and wastewater business. Logan City Council indicates that it had "*understatement of the percentage of infrastructure planning staff working on operating expenditure related work in the 2012/13 budget eg master planning, hydraulic modelling etc. This percentage was increased in 2013/14.*"

The additional 2013-14 budget for these employee expenditure items amount to about $2.5 M. The costs of the additional budget expenses are itemised in **Table 26**.

Table 26 : Additional employee expenses included in the 2013-14 budget

Additional 2013-14 employee expenditure	**$'000**
Payroll Tax	591.6
Vacant positions	1,264

Additional 2013-14 employee expenditure	$'000
Planning staff% capital	634
Total additional cost	2,489.6

As a result, the 6.7% increase between 2012-13 (extrapolated actual) and 2013-14 (budget) employee expenses does not reflect a business as usual situation as vacancies being filled throughout 2012-13 were included in full in 2013-14. It also underestimated the increased provision for planning staff. The increase in 2014-15 is based on the 3.5% wage increase under Logan City Council's Certified Agreement with staff and 0.5% increase in on-costs primarily the increase in superannuation guarantee from 9% in 2012-13 to 9.25% in 2013-14 and 9.5% in 2014-15. The current certified agreement ends in December 2014 and at this stage, there is no agreed increase for 2014/15. Logan City Council has assumed the increase in 2014-15 is similar to the current agreement and in line with economic forecasts.

SKM was advised by Logan City Council that no additional FTEs are forecast across the water and wastewater business in 2013-14 and 2014-15. However, adjustments in allocating staffing levels within functional areas may still occur as greater understanding of resource requirements develops within the business.

As discussed in **Section 4.5.1.1** contractor expenses have been underspent in 2012-13 compared to budget. As a result, 2013-14 contractor expenditure has increased significantly as contractor expenditure previously budgeted for in 2012-13 and not incurred has been included in the 2013-14 contractor budget. This underspend has largely been in respect of the engagement of consultants while the Council concentrated on consolidating the return of the water and wastewater business. The underspend in 2012-13 for various consultancies (including management, engineering, environmental and planning consultancies) has resulted in a backlog of work and spending in these areas will need to be undertaken in 2013-14 to ensure that issues in these areas are addressed. Logan City Council has indicated that increased consultancy works will be needed in the following areas:

- Management consultancy
  - Asset Information Management Strategy,
  - Asset Management Plan,
  - Asset Management System Development and Implementation,
  - Product Quality Strategic Direction,
  - National Benchmarking and
  - Review of Trade Waste Policy
- Engineering consultancies
  - Disinfection and Water Reuse Studies
- Environmental and Planning consultancies
  - Water Environment Studies
- Other consultancies
  - Drinking Water Quality Management Plan
  - Netserv Plan
  - Regulatory Reporting Process
  - Trade Waste Pricing Review
  - Laboratory Process Review

Discussions and information from Logan City Council indicate that the underspend is estimated at approximately $1.6 M in 2012-13. As a result, instead of the $4.7 M contractor expenditure as indicated in the template, the baseline 2012-13 contractor expenses should be $6.3 M.

Also, additional contractors were planned to be engaged in 2013-14 due to additional work requirements in Operations associated areas including main patch repair, CCTV inspections and sewerage house connections. The additional forecast costs for these works are shown in **Table 27**.

Table 27 : 2013-14 Additional contractor expenses

Additional Contracts	$
CCTV sewer mains	137,500
Sewer main patch repair	187,500
Sewer House Connection repair	216,000

4.5.4.1 Calculation of costs

The 2012-13 data provided in the template by Logan City Council does not reflect the base from which the forecast 2013-14 and 2014-15 budgets may be assessed. The 2012-13 data is an extrapolation of the first 7 months of actual expenditure of 2012-13 and does not include the cost of payroll tax and the employment costs attributable to staff vacancies that may have been filled through the year (including within the first 7 months). The increase in the percentage of alliance planning staff time has also not been included in the 2012-13 template data. In discussions with Logan City Council, it was confirmed that the appropriate baseline employee expenditure for 2012-13 should be $17.58 M, some $0.5 M higher than the template extrapolated actual of $17.05 M. This higher figure reflects the additional costs of filled vacancies and the higher percentage of alliance planning staff allocated to the water and wastewater services.

SKM considers that Logan City Council has not factored in a vacancy rate. Council has indicated that it expects all vacancies to be filled within a short period of time and that temporary staff will be engaged to cover all vacancies. Nevertheless, with continuing recruitment to fill new positions in 2013-14 and staff turnover in 2014-15, SKM expects that the average vacancy in 2013-14 will be approximately 2.5%, falling to 2% in 2014-15.

Logan City Council has proposed increases in the cost of employee expenses of approximately 3.5% (after adjustments are made to the employee expense of 2012-13) for 2013-14 and 4% for 2014-15. This is comprised of the 3.5% wage increase provided by the Council's Certified Agreements with Staff and Officers and the legislated provisions of the increase in superannuation guarantee which is set to increase by 0.25% to 9.5% in 2013-14. The current certified agreement ends in December 2014 and at this stage, there is no agreed increase for 2014/15. Logan City Council has assumed the increase in 2014-15 is similar to the current agreement and in line with economic forecasts.

SKM notes that Logan City Council has not proposed to increase its provision for higher superannuation in 2013-14 by 0.25% as provided by the superannuation guarantee (from 9% to 9.25%) but has rather increased the 2014-15 provision by 0.5%. No reasons have been provided for this apparent omission.

The proposed contractor expenses for 2013-14 are $7.5 M. This is almost 60% above the expenditure actually incurred in 2012-13. However the 2012-13 expenditure is lower than expected due to the need for Logan City Council to concentrate on re-establishing the water and wastewater services on its return from Allconnex Water. As a result some $1.6 M of Logan Water's budget for consultants was not incurred. Adjusting the 2012-13 expenditure for this cost produces a $6.3 M contractor expenses baseline. Nevertheless, after this adjustment, the proposed 2013-14 contractor expenditure is still some 19% above the 2012-13 contractor expenses baseline. However, SKM notes that some of this increase is due to additional contractor expenses (see Table 27) arising from a fluctuating work load.

In its response to SKM's draft report, Logan City Council stated that the water reform and local government boundary reform processes over the past six years has meant that Logan City Council faces a major backlog of

establishment and development costs that were planned to be undertaken by the various entities that were responsible for supplying the Logan City area with water and wastewater services (initially the Distribution and Retail entities and subsequently, Allconnex Water). This responsibility is now back with Council and it will take a number of years to develop and implement the management systems expected of a water service provider that aligns with good industry practice.

Logan City Council also stated in its response to SKM's draft report that contractor expenditure is not constant as it fluctuates to meet work requirements. There are only limited areas where services are contracted out in full such as meter reading where costs are similar from year to year. Due to the amount of work required particularly by consultants in areas of compliance and computer systems improvements there is an increase in costs in the short term. In addition, contractors are used in asset management projects which can vary from year to year and planning costs which can vary depending on the capital program.

In our draft report SKM expressed an uncertainty as to whether Logan City Council has the capacity to manage the large increase in consultancy engagements given that the reason provided for the underspend in 2012-13 in consultancies was the need to concentrate their resources on consolidating the return of the water business from Allconnex Water. Logan City Council has assured SKM that with increase in staffing levels since 2012-13 especially the successful engagement in a number of senior positions, Logan City Council's capacity to manage the proposed increase in consultancies has significantly increased and as a result will be able to successfully manage the higher number of consultancies.

Information has been provided to SKM showing that Logan City Council has identified the areas of contract and consultancies for 2013-14 and 2014-15.

Table 28 : 2013-14 Contractor expenses

Description	Water	Sewer	Trade Waste	Non-Regulated	Total
Agency Personnel Costs	$68,894	$66,782	$4,719	$0	$140,395
Management Consultancies	$73,892	$109,409	$7,731	$0	$191,032
Alliance Consultancies	$668,055	$1,162,426	$79,519	$0	$1,910,000
Planning & Environmental Consultancies	$0	$186,800	$13,200	$0	$200,000
Engineering Consultancies	$180,457	$364,618	$20,925	$0	$566,000
Other Consultancies	$243,736	$77,459	$4,681	$0	$325,876
Maintenance Services	$342,431	$815,601	$57,633	$25,000	$1,240,665
Security	$981	$55,262	$3,905	$0	$60,148
Electrical Maintenance	$63,924	$124,623	$8,806	$955	$198,309
Other Services	$444,591	$492,890	$34,830	$50,000	$1,022,311
Minor Contracts	$0	$463	$0	$0	$463
Major Contracts	$737,517	$911,437	$64,406	$0	$1,713,360
Total	$2,824,480	$4,367,770	$300,355	$75,955	$7,568,559
Regulated Contractor Expenses					**$7,492,604**

A number of changes to contract and consultancy costs are apparent between 2012-13 and 2013-14. These include the following:

- Agency costs are expected to fall by over 50% as employee positions have been filled and thus the requirement to engage temporary staff has fallen.
- Management Consultancies are expected to increase by 22% mainly due to the need to undertake asset management strategy development and planning

- The 39% increase in Alliance Consultancies due to the requirement to undertake infrastructure planning which are operational in nature eg master planning and hydraulic modelling, and to respond to new development applications.
- Planning and Environmental Consultancies are expected to increase by over 200% due to the need to decommission the effluent lagoon at Logan Village after the decommissioning of the wastewater treatment plant and the need to undertake water environment studies and other infrastructure planning studies outside the Alliance scope.
- Engineering Consultancies are expected to increase by over 180% due to studies planned to review the unit rates, asset hierarchy and system planning for water and wastewater asset management. Other studies are also planned for Disinfection and Water Reuse, and the development of site management plans for Beenleigh sewerage pump stations. Some expenditure has also been allocated for infrastructure planning outside the Alliance scope.
- A large increase in Other Consultancies is budgeted including Drinking Water Quality Management Plan revision, Netserv Plan consulting, smart meter reading and electronic meter reading studies, Sewerage Treatment Plant consulting, Product Quality program Business Plan Development and Network Operations Workplace Health and Safety investigations.
- Other Major Contracts expected include asset management project works such as the installation of CCTV delayed from previous year, additional mechanical and electrical works required on the Beenleigh sewerage pump stations and patch repair of mains, CCTV inspections and repair house connections. These works are required due to the increased workload particularly in the Beenleigh area.

For 2014-15, Logan City Council has proposed an increase of 3% from the 2013-14 expenditure. This increase reflects both inflation as well as growth in the network.

4.5.4.2 Market conditions

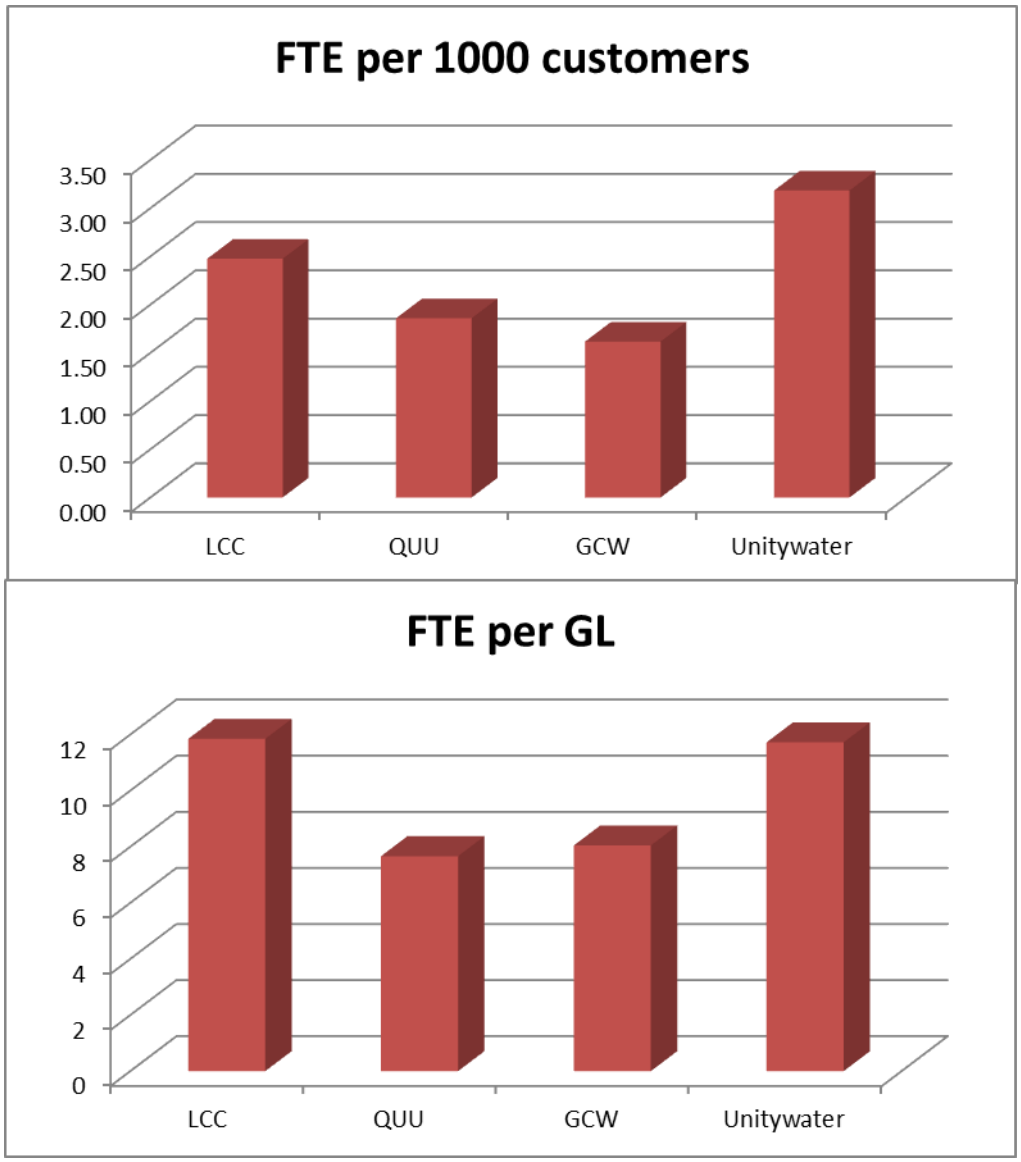
The increase comprises of 3.5% wage increase provided by the Logan City Council Certified Agreements that expire on 31 Dec 2014 and a 0.5% allowance mainly to account for the impact of the rise of employee superannuation entitlements. SKM is of the opinion that this proposed increase is not unreasonable and does reflect general market conditions as well as the provisions provided by its Certified Agreements with staff.

Logan City Council's proposed contractor expenditure for 2013-14 and 2014-15 reflects expected inflation as well as additional work required to increase the business' capabilities to manage the growing network and to meet market and regulatory requirements.

4.5.4.3 Benchmarking

SKM has compared the staffing level proposed by Logan City Council water and wastewater business with its peers in South East Queensland namely Queensland Urban Utilities, Unitywater and Gold Coast Water. After reducing the number of corporate services staff in Queensland Urban Utilities and Unitywater (to account for the fact that both Gold Coast Water and Logan City Council water business staff numbers do not include corporate services staff which are provided by the councils), Logan City Council staffing levels are consistent with that seen in Unitywater in terms of both customer numbers and volume of water delivered. This is shown in the graphs below Figure 4-8.

Figure 4-8 : Relative FTE service delivery efficiency of SEQ water utilities



In its response to SKM's draft report, Logan City Council states that the Council's relatively high FTE ratios are influenced by the quantity of services contracted out. In particular, Gold Coast Water and Queensland Urban Utilities contract out more services compared to Logan City Council which results in reduced FTEs. Logan City Council generally uses employees for services performed with the exception of select services such as meter reading which was converted to contract during the Allconnex Water period. As a result, Logan City Council states that its FTE ratio will appear to be proportionally higher.

In its draft report SKM noted that the higher FTE count seen in Unitywater reflects their current asset management approach. Both Queensland Urban Utilities and Unitywater are attempting to adjust their asset management approach to a more preventative maintenance stance, resulting in some increases in employee numbers, but with as yet un-quantified anticipated performance improvement for the assets and eventually a reduction in costs due to reduced emergency events. In its response to SKM's draft report, Logan City Council states that it has been undertaking preventative maintenance for a number of years. Logan City Council's records indicate that for the 2012/13 year, water crews performed 36% corrective and 64% preventative maintenance and sewer crews performed 18% corrective and 82% preventative maintenance. Treatment plant maintenance was 27% corrective and 73% preventative maintenance.

Allowance must also be made for the significantly smaller size of Logan City Council water and wastewater business over that of Unitywater and Queensland Urban Utilities. While Gold Coast Water is of a similar size to Unitywater, Logan City Council is only about 40% of the size of Gold Coast Water and Unitywater in terms of both customers and water delivered. (A similar relativity exists between Unitywater and Queensland Urban Utilities.) Given these considerations, SKM is of the opinion that the staffing levels proposed by Logan City Council are reasonable.

However, SKM notes that Queensland Urban Utilities and Unitywater are increasing their preventative maintenance programmes which are requiring investments in time and effort now for what are expected to be long-term benefits. This is in line with good industry practice, and whilst Queensland Urban Utilities and Unitywater cannot as yet project how much these preventative maintenance programmes expect to save, it is reasonable to expect these investments will result in a decrease in reactive maintenance expenditure and improved levels of service in the future.

4.5.5 Comparison against saving targets

Specific productivity improvements targets for Logan City Council are not set and the Council has not provided any savings targets. However, general water and wastewater operating expenditure (increases) decisions are governed by Council. In general, budgets are prepared and then reviewed by Council to ensure the budget is within its set parameters. The council has also decreed that there will be no staff increases, regardless of any increase in customer numbers and/or water volumes.

In its response to SKM's draft report, Logan City Council advised that productivity improvements have been incorporated in the budgets as increased maintenance expenditure arising from the ageing nature of the network and asset additions (donated and non-donated) has not been included.

4.5.6 Summary

In summary, SKM considers that the water and wastewater employee budget proposed by Logan City Council is reasonable. This assessment is based on the 3.5% cost category escalation from the adjusted 2012-13 baseline for 2013-14 and 4% for 2014-15. However, SKM considers that Logan City Council has not factored a vacancy rate into consideration in the recruitment of additional staff for 2012-13 and 2013-14 and in staff turnover for 2013-14 and 2014-15. Taking this into consideration, SKM is of the view that the proposed 2012-13 budget estimate is reasonable as it is equivalent to a vacancy rate of 3% over the year. SKM considers that the average vacancy rate for 2013-14 will be approximately 2.5% and for 2014-15 approximately 2%. The employee expenses recommended by SKM have been reduced by this amount.

SKM also concludes that the proposed 2013-14 and 2014-15 contractor expenses are efficient. This is after taking into consideration adjustments to the actual 2012-13 contractor expenditure and allowing for identified additional expenditure in 2013-14. The recommended employee and contractor expenses are shown in **Table 29**.

Table 29 : Recommended employee and contractor expenses

Employee and contractor expenses	2012-13	2013-14	2014-15
Template proposed			
Employee expenses	17,050.9	18,193.2	18,928.7
Contractor expenses	4,714.3	7,492.7	7,719.7
SKM recommended			
Employee expenses	17,050.9	17,738.4	18,550.1
Contractor expenses	6,292.5	7,492.7	7,719.7

Table 30 below classifies the documentation received and identifies any further information required to adequately review each section.

Table 30 : Employee and contractor expenses quality of information provided

Section of OPEX review	Documentation Status	Additional Information Required
Prudency		
Cost driver		
Efficiency		
Calculation of costs		
Market conditions		
Benchmarking		

4.6 Electricity costs

4.6.1 Overview of operating expenditure

Electricity is used by the Logan City Council water and wastewater business for the transfer of water and wastewater in its network, and the treatment of wastewater in its sewage treatment plants. Some electricity is also used in other plants and buildings.

In its submission, the Logan City Council identified certain drivers of electricity costs. It stated that a "growth component, weather impact component and projected movement in retail charges have been incorporated in estimated charges."8

Table 31details the electricity expenditure detailed in the template for Logan City Council's water and wastewater business between 2012-13 and 2014-15.

Table 31 : Logan City Council's proposed electricity expenditure for water and wastewater operations ($'000)

Service	Electricity Expenditure ($'000)		
	2012-13	2013-14	2014-15
Drinking water	308.3	455.4	499.1
Wastewater via sewer	1,985.3	2,671.8	2,928.3
Trade waste	140.3	188.8	206.9
Total	2,433.9	3,316.0	3,634.3
% increase		36.2	9.6

Logan City Council has proposed total electricity expenses for the period of 2013-15 of about $9.4 M. Electricity expenditure is projected to increase by over 36% in 2013-14 and by 9.6% in 2014-15.

4.6.2 Provided documentation

The key reference documents used for this review are:

- Logan City Council Price Monitoring Information Return 2013-15, 30 Sep 2013,
- 8600687-Amended QCA Data Template - Sept 2013-v1.xls
- 8600927-Electricity - Treatment Plants-v1
- 8600490-Electricity Charges - Network-v1

[8] *Logan City Council Price Monitoring Information Return 2013-15*, 30 Sep 2013, P23

- RFI LCC 016 - 30 Opex.xls
- Budget Guide 2013/14
- Email from [redacted], *Logan City Council - RFI 036 – 049,* sent Wednesday, 9 October 2013
- Budget 2012-13 Cost Allocations.pdf

4.6.3 Prudency

The expenditure on electricity is used to meet the following driver categories:

- Legal obligations
- New growth
- Operations and maintenance of existing infrastructure

Logan City Council is required to supply drinking water and treat wastewater to meet license conditions for public health and environmental discharge limitations. Electricity provides motive and process energy for the operation of these services.

SKM is of the opinion that, as the population of SEQ grows, additional water and wastewater services are required to be supplied. Electricity consumption is related to the quantity of water supply and wastewater processed and will therefore increase with population growth in the service area.

Electricity is an integral part of the operation and maintenance of the Logan City Council's existing network as all pump stations and process plants require electricity to function and operate safely.

The purchase of electricity for the operation of water supply, wastewater treatment plants and office facilities is required to fulfil Logan City Council's obligations and hence is prudent.

4.6.4 Efficiency

4.6.4.1 Calculation of costs

SKM is of the opinion that electricity expenditure is a variable cost and is expected to increase as usage increases and will also be affected by any electricity rate changes.

In its submission, Logan City Council states that "*an increase of 28.6% was applied to 2013/14, incorporating growth, retail price increase and carbon tax increase. An increase of 9.6% has been applied to 2014/15.*"[9] SKM noted that this statement was inconsistent with the data provided by Logan City Council in their Information Template and requested an explanation.

In response to SKM's request for information, Logan City Council advised that the 2012-13 Information Template cost for electricity of $2.4 M was based on the consumption of electricity during a period of dry weather prior to the wet weather experienced in the second half of 2012-13. The 2012-13 data in the Information Template was based on extrapolating actual year-to-date (to January 2013) data for the full year. SKM accepts that as electricity use is significantly impacted by wet weather because of the need for electricity to be used in sewage pump stations and treatment plants, extrapolating electricity costs from a period of dry weather is likely to underestimate consumption if the remainder of the year proves to be wetter than the preceding period. The 2013-14 electricity cost estimate was based on normal weather over the year and thus explains some of the discrepancy between the 36.2% increase in costs found in the template and the 28.6% increase stated in Logan City Council's submission.

[9] *Logan City Council Price Monitoring Information Return 2013-15*, 30 Sep 2013, P23

Logan City Council also provided to SKM information for 2012-13 to 2014-15 showing the estimated impact of load growth and price growth on its cost for electricity. This is shown in **Table 32**.

Table 32 : Logan City Council's electricity cost and usage

	2012-13	2013-14	2014-15
Electricity expenses ($'000)	2,433.9	3,316.0	3,634.3
% increase		36.2%	9.6%
Electricity usage (MWh)	22,349.9	24,293.9	24,682.6
% increase		8.7%	1.6%
Unit cost ($/KWh)	0.109	0.136	0.147
% increase		25.3%	7.9%

Information in Table 32 indicates that the 8.7% increase in 2013-14 electricity usage comprises of both general load growth as well as the impact of wet weather. Logan City Council confirmed to SKM that the general load growth applicable for 2013-14 was 2.6% with the remainder due to other increases including adjustments for the Logan River Pump Station, Alfred St bypass pump station, Beenleigh pump station not billed and the future billing errors. Wet weather adjustments accounted for 2.3% of the 8.7% increase.

The adjustments that were made to account for the higher 2013-14 cost include:

- An additional $50,000 applied to Logan River Pump Station. This is associated with change of water flows from Gold Coast to supply through Logan
- Additional billing in 2013/14 of $50,000 was applied to the Alfred St Bypass Pump Station. This adjustment was made for meter under-reading in 2012-13
- Billing errors associated with changeover of sites from Allconnex Water to Logan City Council is still continuing. One Beenleigh pump station has not been billed since its transfer. The additional charge has been estimated at $12,000[10]
- Correction for errors regarding the applicable electricity tariff was estimated at approximately $5,000

The total impact of these adjustments amount to $117,000.

The assumed load growth of 2.6% is related to a projected growth in demand. It is similar to the expected population growth rate projected by the Queensland Treasury's Office of Economic and Statistical Research (OESR) (medium growth series) which projects that population in the Logan LGA would grow by 2.5% between 2011 and 2016. As such SKM accepts that a 2.6% estimate is reasonable for 2013-14. For 2014-15 Logan City Council has applied a 1.6% load growth. This is significantly lower than the projections developed by the OESR.

The cost increase of 36.2% is mainly due to the increase in retail price of electricity. Allconnex Water's electricity supply contract was novated to the Logan City Council when the Council took over the water and wastewater asset. The contract with various electricity retailers is due to expire on 31 December 2013 and the Council is currently in the process of tendering for a new supply contract via Local Buy. With the new contract, Logan City Council has estimated that the retail price of electricity would increase by 21%. Given that the Council's current electricity supply contract is due for renewal and the recent fluctuations in electricity contract prices, SKM acknowledges that future prices are difficult to predict.

Logan City Council stated that it had based the proposed 21% increase in retail electricity price for 2013-14 on press reports based on the Authority's May 2013 determination of retail electricity prices. SKM has been unable to reconcile the Authority's determination to the Council's assumption. In May 2013, the Authority determined

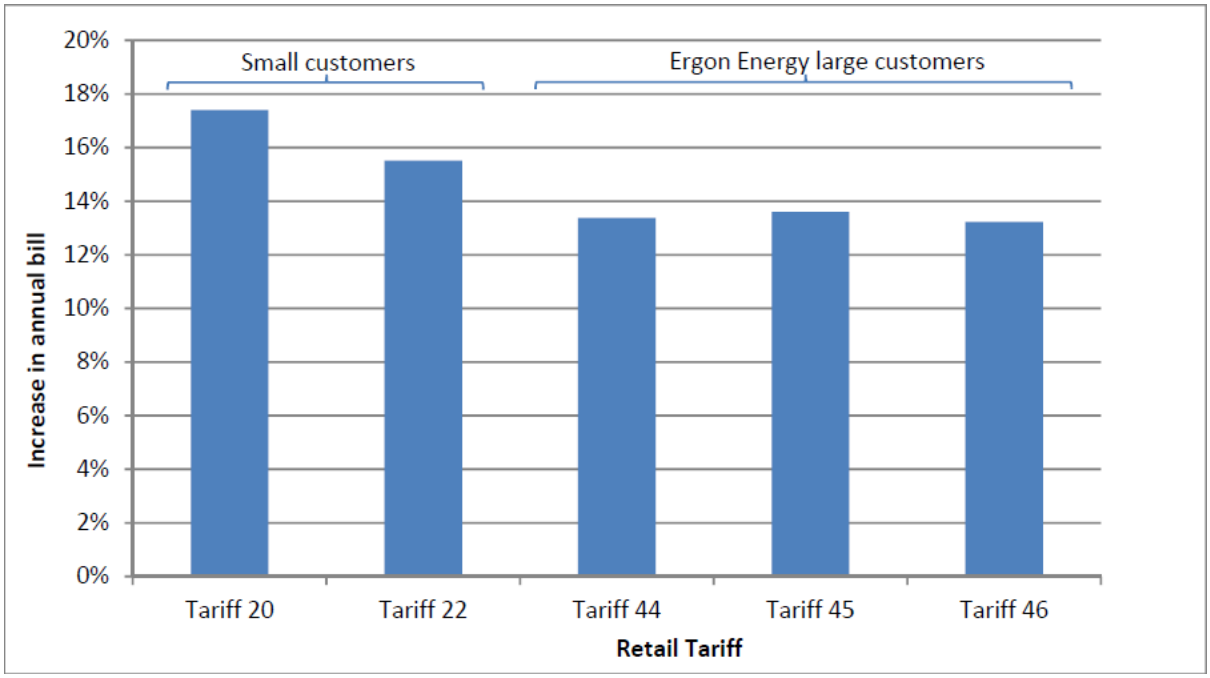
[10] In response to SKM's draft report, Logan City Council stated that records show that the Beenleigh pump station has not been billed since the local government boundary reform in March 2008. As a result the additional charge may be higher than $12,000 estimate. However, SKM does not have sufficient data to advise on the absolute quantum of the additional charge.

that small customers on tariffs would face increases in electricity prices as it transitions to cost reflective tariffs and a typical residential customer consuming 4,250 kWh pa would face increases of 22.6% in 2013-14.[11] Non-residential customers similarly face increases of over 15% in South East Queensland. The assessment is reproduced in **Figure 4-9**. However, large non-residential customers in South East Queensland no longer have access to regulated electricity prices and the applicability of such prices to all the Logan City Council's sites is questionable as many of them are not covered by this decision and only a number of smaller sites would face such an increase. Also large contestable sites already face cost reflective tariffs and so can expect to face lower increases than the 15% indicated in the Authority's determination. In addition, Logan City Council has also proposed an additional 5% increase based on the impact of the carbon tax.

It is considered that any press reports of 21% electricity price increases proposed by Logan City Council may be based on the Authority's assessment of the impact on a typical residential bill. SKM does not accept that media reports are an appropriate source on which to base estimates of a price increase. In its response to SKM's draft report, Logan City Council agrees that comparison to the residential price rises is not relevant as Logan City Council pays a business tariff (peak & off peak).

SKM also notes that a recent Australia Energy Markets Commission (AEMC) report states that the nominal percentage increase in Queensland from 2011-12 to 2012-13 was 16% and the average annual increase from 2012-13 to 2013-14 is 4%. The report also states that a total price increase of 5.8 c/kWh is projected between 2014-15 from 22.1 c/kWh in 2011-12.[12] This suggests a nominal price increase of about 26.2% over the period or 8.1% pa. The report however also notes that the "*values did not incorporate the (then) recent pass through approvals by the AER in respect of feed-in tariff costs for 2011/12 or retail price proposals under the QCA's draft retail price determination for 2013/14.*"[13] It is thus likely that the increase would be larger than 8.1%. The replicated table from the AEMC report may be seen in **Table 33**.

Figure 4-9 : Change in Electricity Bills in 2013-14 for Typical (Median) Residential Customers



Source: Queensland Competition Authority, Final Determination: Regulated Retail Electricity Prices 2013-14, May 2013

[11] Queensland Competition Authority, *Final Determination: Regulated Retail Electricity Prices 2013-14*, May 2013 P IX
[12] AEMC 2013, Possible future retail electricity price movements: 1 July 2012 to 30 June 2015, Electricity price trends report, 22 March 2013, Sydney, P109
[13] Op. cit. P30.

Table 33 : Queensland - summary of price trends by component from 2011/12 to 2014/15

Queensland	Nominal percentage increase between 2011/12 - 2012/13	Average annual increase between 2012/13 - 2014/15	Nominal price increase between 2011/12 - 2014/15 c/kWh	Percentage of total price increase attributable to component
Transmission component	4%	3%	0.2	3%
Distribution component	16%	9%	3.4	59%
Wholesale energy component	4%	2%	0.7	13%
Retail component	48%	-1%	1.5	26%
Total	**16%**	**4%**	**5.8**	**100%**

Notes:

1. These values do not incoporate recent pass through approvals by the AER in respect of feed-in tariff costs for 2011/12, or retail price proposals under the QCA's draft retail price determination for 2013/14.
2. Values are nominal (not adjusted for inflation) and exclusive of GST.
3. Numbers may not add due to rounding.

Source : AEMC 2013, Possible future retail electricity price movements: 1 July 2012 to 30 June 2015, Electricity price trends report, 22 March 2013, Sydney, P31

For 2014-15, Logan City Council has applied an increase of 9.6% for electricity expenses. This is comprised of a 1.6% increase due to load growth and the remaining (7.8%) due to electricity price increase. This proposed increase in 2014-15 is based on a continuation of the cost increase it had assumed for 2013-14 of 21%. Logan City Council had assumed that the rate of increase would continue to apply over two years due to the application of the price cap from 2011-12 (ie the increase of 21% in 2013-14 occurs over a two year period). The Council has also assumed that part of this increase is due to price increase while also partly due to volume growth. Volume growth is assumed to be 1.6% and price rises contribute 7.6%.

While acknowledging the uncertainties, SKM is of the opinion that the Logan City Council estimate of 21% price increase for 2013-14 is too high and considers that the likely range of electricity price increases for 2013-14 may be between 8.1% (based on the AEMC report) and 15% (from the Authority's determination) for business customers. In the absence of any further information to the contrary, SKM is of the view that it is appropriate to apply a price increase at a midpoint in this range ie 11.6% for 2013-14.

SKM also does not accept that 7.6% is an appropriate increase for 2014-15 prices. SKM notes that the AEMC has estimated that the annual increase between 2012-13 and 2014-15 is 4% and recommends this increase be applied to Logan City Council's 2014-15 electricity prices.

In its response to SKM's draft report, Logan City Council submits that the three year average rate used from the AEMC report is not as relevant as the Authority's 2013-14 projected electricity price increase due the current variability over a three year period. The Authority's 2013/14 projected increase is for the year under review and will be the more readily accepted for Authority's report on the water businesses. However, as it is noted earlier in this section, the applicability of the Authority's reported electricity prices to the Logan City Council's sites is questionable as many of them are not covered by this decision and only a number of smaller sites would face such an increase. Also large contestable sites already face cost reflective tariffs and so can expect to face lower increases than the 15% indicated in the Authority's determination.

Logan City Council also submitted that in regards to 2014/15 as the Authority's projected electricity price increase is not available, the AEMC three year average price increase (8.1%) should be used for consistency. However, SKM noted that the 8.1% pa average price increase indicated by the AEMC applies from 2011-12 to 2014-15 while the average price increase from 2012-13 to 20-14-15 is 4% pa.

SKM has seen no underlying data to support the reduction in load growth from 2.6% in 2013-14 to 1.6% in 2014-15 and recommends that, as the 2.6% load growth rate of 2013-14 is similar to the OESR's population

growth rate for the Logan LGA between 2011 and 2016, a similar OESR supported rate should apply in 2014-15.

SKM has accepted that an additional 5% increase for 2013-14 due to the carbon pricing mechanism as proposed by Logan City Council while noting that this tax may shortly be eliminated as the new Federal Government has announced.

Therefore the expenditure is assessed as not being efficient. SKM has re-estimated the forecast electricity expenditure for 2013-14 shown in **Table 34**.

Table 34 : 2013-14 revised electricity expenditure calculations

	2012-13	2013-14	2014-15
Proposed electricity expenses ($'000)	**2,433.9**	**3,316.0**	**3,634.3**
adjustment for additional expenses			
• Logan River Pump Station	50.0		
• Alfred St Bypass Pump Station	50.0		
• Billing errors associated with • changeover from Allconnex	12.0		
• Correction for tariff errors	5.0		
• Normalising for wet weather	56.0		
Total Adjusted 2012-13 expenditure	**2,606.9**		
Expected increases due to			
• Carbon tax		5.0%	
• Retail price increase		11.6%	4.0%
• Load increase		2.6%	2.6%
Recommended forecast expenditure		**3,055.8**	**3,179.0**

4.6.4.2 Market conditions

Allconnex Water's electricity supply contract was novated to the Logan City Council when the Council took over the water and wastewater assets from Allconnex Water. The contract with various electricity retailers is due to expire on 31 December 2013 and the Council is currently in the process of tendering for a new supply contract.

No specific information has been provided with which to assess the market conditions for electricity costs. Logan City Council have stated that all procurement is undertaken in accordance with the council's procurement policy and for electricity contract renewal due in December 2013, Logan City Council has concentrated on procuring the new contract via Local Buy potentially in conjunction with other state and local government authorities.

Local Buy's main function is to aggregate demand for goods and services required by local and state government authorities with the aim of achieving a better pricing and conditions for those goods and services, thereby eliminating the need for councils and government entities to establish their own supply contracts. A concern Logan City Council had expressed is that, with the transition from Allconnex, Logan City Council's electricity requirement would be significantly lower than that required by Allconnex which had the benefit of amalgamating with Gold Coast and Redland City Councils' electricity demand. It is feared that with the smaller demand, price rises would be significantly above that which could have been achieved with a larger demand. Purchasing through Local Buy could exploit the purchasing power of Local Buy and enable Logan City Council to pool its demand with that of others and thus achieve competitive market prices similar to those enjoyed by Allconnex Water for the new electricity contract.

4.6.4.3 Efficiencies and economies of scale

No specific efficiency target has been provided nor has Logan City Council stated how economies of scale are being addressed. Changes in practice may be able to lead to more efficient utilisation of electricity or may be able to lower the cost of electricity by reducing peak demand. Logan City Council has not at this stage been able to investigate these potential savings given the recent transfer of responsibility for water and wastewater services but is an area where savings may be achieved.

Logan city Council has indicated to SKM that an energy consultant has been engaged by the Asset Management section to investigate network and treatment plant energy cost saving measures. This includes site specific energy management plans, shifting of power from peak to off peak, energy reduction opportunities, and alternative energy and renewable energy opportunities. Such a positive action to seek opportunities to reduce electricity consumption is considered to be in keeping with industry good practice.

4.6.5 Summary

SKM has determined that the expenditure is required to meet legal obligations, to meet new growth and to allow the operation and maintenance of existing infrastructure. The electrical expenditure is therefore assessed as being prudent.

SKM is of the view that the manner in which Logan City Council has forecast its electricity expenses is not robust. SKM acknowledges that Logan City Council has only recently resumed control of water and wastewater services from Allconnex and that the quality and quantity of data available to the Council for electricity expenses is both limited and in some cases dated because of the electricity retailer's failure to supply up to date invoices. Billing errors also exist due to the transfer of assets from Allconnex to Logan City Council. SKM therefore accepts that the need to make adjustments associated with the transition from Allconnex makes estimating future expenditure more uncertain.

Nevertheless, SKM is of the opinion that a 21% price rise for electricity in 2013-14 is excessive and recommends applying a price rise of 11.6%, reflecting the midpoint of the AEMC's estimate for price increases that has not included a number of Queensland specific pass through events and the Authority's estimated price rise for small businesses.

SKM is also of the opinion that the 2.6% load growth assumed by the Logan City Council is appropriate for 2013-14. As no reason has been provided regarding why this growth should fall to 1.6% in 2014-15. SKM recommends maintaining the growth rate at 2.6% for 2014-15. Table 35shows SKM's recommended electricity expenses. The recommended expenses result in a reduction in electricity expenses for 2013-14 of $260,000 and $455,000 in 2014-15.

Table 35 : Revised electricity expenditure

Electricity expenses ($'000)	2012-13	2013-14	2014-15
Proposed expenses	2,433.9	3,316.0	3,634.3
SKM recommended	2,606.9	3,055.8	3,179.0

Table 36below classifies the documentation received and identifies any further information required for adequate review.

Table 36 : Electricity expenses quality of information provided

Section of OPEX review	Documentation Status	Additional Information Required
Prudency		
Cost driver		

Section of OPEX review	Documentation Status	Additional Information Required
Efficiency		
Calculation of costs		Price increase assumptions based on a range of inappropriate sources including media reports. More robust sources are required.
Market conditions		Provide additional information discussing market conditions faced by Logan City Council
Efficiencies and economies of scale		Provide additional information on efficiency and economies targets

4.7 Other materials and services

The Other Materials and Services category covers a range of different expenses that are not directly allocated to other defined categories. Logan City Council has stated that the "Other materials and services" category "*represents categories of expense that are not captured in the other categories.*"[14]

Logan City Council has proposed total expenses for Other Materials and Services over the forecast period of 2013-14 and 2014-15 of $62.4 M. This is shown in **Table 37** which provides an overview of the Other Materials and Services expenditure detailed in the Information Template.

Table 37 : Logan City Council's proposed Other Materials and Services expenditure ($'000)

Category	Service	Operating Expenditure ($'000)		
		2012-13	2013-14	2014-15
Other Materials & Services	Drinking water	6,187.10	5,988.40	6,065.00
	Wastewater via sewer	4,800.00	4,661.70	4,759.60
	Trade waste	1,137.00	1,341.50	1,390.30
	Total	**12,124.10**	**11,991.60**	**12,214.90**
	% increase		**-1.2**	**3.2**

The data shows that for the 2013-14 financial year a reduction in expenditure is expected for all regulated service categories except trade waste. Overall the operating expenditure for other materials and services are forecast to fall by 1.2% from the 2012-13 level. For 2014-15, an overall increase is forecast amounting to 3.2%.

4.7.1 Provided documentation

The key reference documents used for this review are:

- Logan City Council Price Monitoring Information Return 2013-15, 30 Sep 2013,
- 8600687-Amended QCA Data Template - Sept 2013-v1.xls
- RFI LCC 016 - 30 Opex.xls
- 8602443-QCA RFI 36 - 49 Operating Costs-v1.xls
- Budget Guide 2013/14
- Email from [redacted], *Logan City Council - RFI 036 – 049,* sent Wednesday, 9 October 2013
- Budget 2012-13 Cost Allocations.pdf

[14] *Logan City Council Price Monitoring Information Return 2013-15*, 30 Sep 2013, P23

4.7.2 Prudency

The expenditure category Other Materials and Services has been used as a 'catch all' for expenditure that does not meet the criteria for the other expenditure categories. As such a wide variety of items (ie materials and services) has fallen under the category.

SKM is of the view that the expenditure in Other Materials and Services has been incurred to meet the following driver categories:

- Legal obligations
- Growth in both connections and water delivery volumes and
- Operations and maintenance of existing infrastructure

SKM is of the opinion that the expenditure relating to this category is necessary to enable Logan City Council to meet its service delivery obligations. Thus SKM considered this expenditure to be prudent.

4.7.3 Efficiency

4.7.3.1 Calculation of costs

Logan City Council informed SKM that estimates for materials and services expenditure are generally based on historical information. 2012-13 data in the template had been estimated based on year-to-date (January 2013) data annualised plus any material adjustments. The 2013-14 budget is based on the 2012-13 forecast plus 2.2% increase in accordance with the parameter established by Council with known adjustments for 2013-14 across all activities. Where the budget increase exceeded the 2.2% limit, reductions were made to the 2013-14 budget to offset the increase.

The 2014-15 budget was based on the 2013-14 budget with material increased by 4% and 3% for services.

In response to SKM's request for information, Logan City Council provided details of the 2012-13 and 2013-14 budget for Other Materials and Services. **Table 38**provides details of the major expenditure items in this category.

Table 38 : Other Materials and Services expenditure ($'000)

Description	Category	2012-13	2013-14	% change
Internal - Vehicle/Plant Hire	Internal Services	3,573.2	3,146.6	-11.9%
Internal - Miscellaneous Plant Hire	Internal Services	1,551.5	1,993.9	28.5%
Minor Equipment & Supplies	External Materials	1,406.2	1,463.1	4.1%
Services Allocated	Other Services	815.7	522.9	-35.9%
Plumbing Materials	External Materials	601.5	589.0	-2.1%
Internal - Maintenance Services	Internal Services	599.6	612.8	2.2%
Property Leases & Rentals	Other Services	565.5	557.2	-1.5%
Fuel	External Materials	437.9	465.3	6.3%
Construction Materials	External Materials	415.6	424.8	2.2%
Insurance Premium	Other Services	356.8	376.0	5.4%
Internal - Spoils	Internal Materials	209.6	213.0	1.6%
Internal - Sand	Internal Materials	174.9	182.3	4.3%
Doubtful Debts Expenses	Other Services	118.1	70.9	-40.0%
Cleaning & Sanitary	Other Services	117.0	119.7	2.3%

Description	Category	2012-13	2013-14	% change
Memberships & Subscriptions	Other Services	112.0	83.6	-25.3%
Legal Services	Other Services	93.2	163.2	75.0%
IT Equipment and Applications	Other Services	63.1	175.3	177.8%
Items under $100,000 (83 accounts)		923.3	832.0	-9.9%
Total		12,135	11,992	-1.2%

Table 38reveals that the largest increases are in miscellaneous plant hire, legal services and IT equipment and applications. These increases are offset by reductions in vehicle/plant hire, services and provisions for doubtful debts. On requests for supporting information Logan City Council regarding these large movements in costs Logan City Council provided the following explanations:

Internal - Miscellaneous Plant Hire – The 2012-13 estimate was understated as invoices were incorrectly costed to Internal Vehicle / Plant Hire in the ledger as at January 2013. This was the cut-off date for estimating the annual cost for developing template data. Together, the expenditure for these two items is similar between 2012-13 and 2013-14.

Services Allocated - The reduction is due to a difference in allocation of costs between Alliance Consulting (ie part of Contractors) and Services Allocated. Costs that were charged to Services Allocated in 2012-13 were budgeted to Alliance Consulting in 2013-14.

Doubtful Debts - Debts were transferred from Allconnex Water without a doubtful debts provision. In accordance with Logan City Council policy, doubtful debts provision was created. The value of debts transferred from Allconnex was much larger than a normal year's outstanding debt, resulting in a higher Doubtful Debts provision in 2012-13. As a result, the provision in 2013-14 for doubtful debts was reduced.

Legal Services - Legal expenses on Infrastructure Agreements with developers form the majority of this expense item. The 2013-14 budget was based on the infrastructure agreements expected to be created during the year which exceeded that of 2012-13.

IT Equipment and Applications – The higher provision is for expenditure associated with significant additional systems for the management and operation of the water and wastewater business. This includes the implementation of a Strategic Asset Management System, additional intelex system compliance licences and a laboratory software implementation.

Given that the total 2013-14 other materials and services budget has reduced slightly from over $12.1 M to under $12 M, SKM is of the view that the proposed 2013-14 budget is reasonable.

Logan City Council has proposed that the 2013-14 budget for other materials and services increase by 3.2% from the 2013-14 budget. This increase was derived by a 4% increase in materials and 3% increase in services. No justification was provided for the proposed increases in either materials or services. This proposed increase exceeds the 2013-14 increase parameter set by the Council where the increase of both Materials and Services are limited to 2.2%.[15]

In its response to SKM's draft report, Logan City Council submitted that the proposed increase of above 2.2% is due to increased maintenance due to the ageing of the network and asset additions. No further information has been provided to substantiate this proposal.

SKM is of the view that the proposed 3.2% increase in other materials and services for 2014-15 is not justified given the lack of details provided by Logan City Council for 2014-15. SKM recommends this increase be limited to the parameter set in the Budget Guide 2013-14 of 2.2%.

[15] Budget Guide 2013/14, P7

4.7.3.2 Market conditions

No specific information has been provided with which to assess the market conditions for Other Materials and Services. Logan City Council has stated that their procurement of materials and other services are undertaken by the Council and is in accord with the general council's procurement policy.

4.7.3.3 Efficiencies and economies of scale

No specific efficiency target has been provided nor has Logan City Council stated how economies of scale are being addressed. Logan City Council has indicated that all procurement has to be undertaken in accordance to the Council's procurement policy and purchases are made by Council as a whole. It is thus likely that some economies of scale have been achieved as the Council is a significant entity.

In addition Logan City Council has indicated that a number of Council purchasing activities have been through Local Buy (the Local Government Association of Queensland procurement services company). Local Buy tendered arrangements meet all the legislative requirements of the Local Government Act 2009 and Local Government Regulation 2012 and enables Councils and State Government departments in Queensland to purchase goods and services from Local Buy contractors without any further need to tender or seek multiple quotes. Local Buy's main function is to aggregate demand for goods and services required by local and state government authorities to achieve better pricing and conditions thereby eliminating the need for councils and government entities to establish their own supply contracts and potentially, leading to economies of scale in purchase contracts.

The purchasing power of Local Buy is likely to be significant and should enable Logan City Council achieve competitive market prices for the materials and services acquired in this manner.

4.7.4 Summary

Logan City Council has demonstrated that the expenditure is required to fulfil the operating and maintenance activities in order to deliver the regulated services. The expenditure is assessed as prudent.

SKM has assessed the proposed expenditure for Logan City Council and is of the view that, in the context of the uncertainty of the transition from Allconnex, the 2012-13 and 2013-14 expenditure is efficient. However, there is not sufficient information to make the same assessment for 2014-15 and SKM recommends that the increase proposed for the 2014-15 expenses for other materials and services be reduced to 2.2% consistent with the Council Budget Guide 2013-14. SKM's recommended expenses for Logan City Council's other materials and services budget are as shown in **Table 39**.

Table 39 : Recommended Other Materials and Services expenditure ($'000)

Other materials and services expenses	2012-13	2013-14	2014-15
Proposed expenses	12,134.6	11,991.6	12,376.1
SKM recommended	12,134.6	11,991.6	12,255.4

There is insufficient information provided to assess savings targets or economies of scale.

Table 40 below classifies the documentation received and identifies any further information required to adequately review each section.

Table 40 : Other Materials and Services Expenses quality of information provided

Section of OPEX review	Documentation Status	Additional Information Required
Prudency		
Cost driver		

Section of OPEX review	Documentation Status	Additional Information Required
Efficiency		
Calculation of costs		To provide justification for the higher proposed 2014-15 increase.
Market conditions		Provide additional information discussion market conditions faced by Logan City Council
Efficiencies and economies of scale		Details on identified savings due to productivity improvements and efficiencies of scale.

4.8 Summary assessment of operational expenditure

In general, SKM is of the opinion that the 2012-13 budget submitted by the Logan City Council is not robust and a number of adjustments needed to be made to the 2012-13 budget. This is considered largely attributable to the transition from Allconnex. Logan Council has advised that it considers the quality and quantity of information accompanying the transfer to be of insufficient quality to enable robust capital and operating expenditure business cases to be compiled. However, the 2013-14 budget demonstrates a greater level of robustness as they were based on information and parameters set by Logan Council.

In the absence of sufficient benchmarking information and base year data, SKM concludes that Logan City Council's corporate costs budgets are prudent, but could not assess their efficiency. SKM is of the view that, based on experiences with other entities and industries, operating efficiencies of 2% per annum in corporate costs would be achievable in 2013-14.

SKM considers that the water and wastewater employee budget proposed by Logan City Council is reasonable. This assessment is based on the 3.5% cost category escalation from the adjusted 2012-13 baseline for 2013-14 and 4% for 2014-15. However, SKM considers that Logan City Council has not factored a vacancy rate into consideration in the recruitment of additional staff for 2012-13 and 2013-14 and in staff turnover for 2013-14 and 2014-15. Taking this into consideration, SKM is of the view that the proposed 2012-13 budget estimate is reasonable as it is equivalent to a vacancy rate of 3% over the year. SKM considers that the average vacancy rate for 2013-14 will be approximately 2.5% and for 2014-15 approximately 2%. The employee expenses recommended by SKM have been reduced by this amount. SKM also concludes that the proposed 2013-14 and 2014-15 contractor expenses are efficient. This is after taking into consideration adjustments to the actual 2012-13 contractor expenditure and allowing for identified additional expenditure in 2013-14.

SKM found the Logan City Council electricity expenses forecast to be unsatisfactory. SKM acknowledges that Logan City Council has only recently resumed control of water and wastewater services from Allconnex and that the quality and quantity of data available to the Council for electricity expenses is both limited and in some cases dated because of the electricity retailer's failure to supply up to date invoices. Billing errors also exist due to the transfer of assets from Allconnex to Logan City Council. The need to make adjustments associated with the transition from Allconnex makes estimating future expenditure more uncertain. Nevertheless, SKM is of the opinion that a 21% price rise for electricity in 2013-14 is excessive and recommends applying a price rise of 11.6%, reflecting the midpoint of the AEMC's estimate for price increases that has not included a number of Queensland specific pass through events and the Authority's estimated price rise for small businesses. While SKM is of the opinion that the 2.6% load growth assumed by the Logan City Council is appropriate for 2013-14 as no reason has been provided regarding why this growth should fall to 1.6% in 2014-15, SKM recommends maintaining the growth rate at 2.6% for 2014-15.

SKM has assessed the proposed other materials and services expenditure for Logan City Council and is of the view that in the contact of the uncertainty of the transition from Allconnex, the 2012-13 and 2013-14 expenditure is efficient. However, there is not sufficient information to make the same assessment for 2014-15 and SKM is of the view that the increase proposed for the 2014-15 expenses for other materials and services be reduced to 2.2% from the proposed 3.2%, consistent with the Council's Budget Guide 2013-14.

4.8.1 Recommended adjustments to operational expenditure

The following reductions to the 2013-14 and 2014-15 forecasts are recommended:

- Corporate Costs - SKM recommends that based on experiences with other entities and industries, operating efficiencies of 2% per annum in corporate costs would be achievable in 2013-14.
- Employee Expenses - SKM recommends that the employee expenditure proposed by Logan City Council be reduced by about $455k in 2013-14 and $380k in 2014-15
- Electricity – SKM's recommended expenditure for electricity result in a reduction in electricity expenses for 2013-14 of $260,000 and $455,000 in 2014-15 over that provided in Logan Councils budget and Information Template submission.
- Other Materials and Services - SKM recommends that the increase proposed for the 2014-15 expenses for other materials and services be reduced to 2.2% consistent with the Council Budget Guide 2013-14 which equates to a reduction of $120,700.

Table 41 : Summary of reductions to 2013-14 operating expenditure forecast (values in nominal $'000)

Category	2013-14 submission	Recommended reduction	Revised 2013-14 budget	Variance
Corporate Costs	5,434.00	-109.00	5,325.00	-2%
Employee Expenses	18,193.20	-454.80	17,738.40	-2.5%
Contractor Expenses	7,492.70	0.00	7,492.70	0%
Electricity	3,316.00	-260.20	3,055.80	-8%
Other Materials and Services	11,991.60	0.00	11,991.60	0%
Total 2013-14 forecast[16]	106,668.50	-824.00	105,844.50	-1%

Table 42 : Summary of reductions to 2014-15 operating expenditure forecast (values in nominal $'000)

Category	2014-15 submission	Recommended reduction	Revised 2014-15 budget	Variance
Corporate Costs	5,551.00	-111.00	5,440.00	-2%
Employee Expenses	18,928.70	-378.60	18,550.10	-2%
Contractor Expenses	7,719.70	0.00	7,719.70	0%
Electricity	3,634.30	-455.30	3,179.00	-13%
Other Materials and Services	12,376.10	-120.70	12,255.40	-1%
Total 2014-15 forecast[17]	114,172.40	-1,065.60	113,106.8.80	-1%

[16] There are other categories included in the total 2013-14 forecast, and therefore these values are not the summation of the individual categories shown

[17] There are other categories included in the total 2014-15 forecast, and therefore these values are not the summation of the individual categories shown

5. Capital expenditure

This section contains a review of prudency and efficiency of Logan City Council's proposed capital expenditure for the 2013-15 financial years. The section includes the following sub-sections:

- Overview of Logan City Council's capital expenditure for 2013-15
- The Authority's sample selection
- Overview of prudency and efficiency of capital expenditure
- Summary prudency and efficiency reviews of the each selected sample
- Summary and recommendations

5.1 Overview of capital expenditure

The Authority required that to assess the prudency of capital expenditure, Logan City Council must attribute one or more of the following drivers to the capital expenditure projects submitted:

- **Growth** – capital expenditure designed to provide an increase in the capacity or capability of an asset or construction of new assets in response to increased demand, growth or variations required by a customer. Capital expenditure to provide increased security of supply should be included in growth.
- **Renewals** – capital expenditure associated with the replacement and or enhancement of an asset that currently meets service performance standards and legislative requirements but faces an unacceptable risk of future non-compliance. The renewal will maintain existing levels of service over the life cycle of the asset.
- **Improvements** – capital expenditure associated with upgrading service outcomes to improve asset efficiency, reliability or increase the anticipated life of an asset to prevent service non-compliance or capacity shortfall. It must achieve an increase in the reliability of the quality of supply that is explicitly endorsed or desired by customers, external agencies or participating councils.
- **Compliance** – capital expenditure associated with the replacement and or enhancement of an asset to prevent a non-compliance with legislative requirements such as (but not limited to) the Water Act, South-East Queensland Water (Distribution and Retail Restructuring) Act, Water Supply (Safety and Reliability) Act and OH&S.

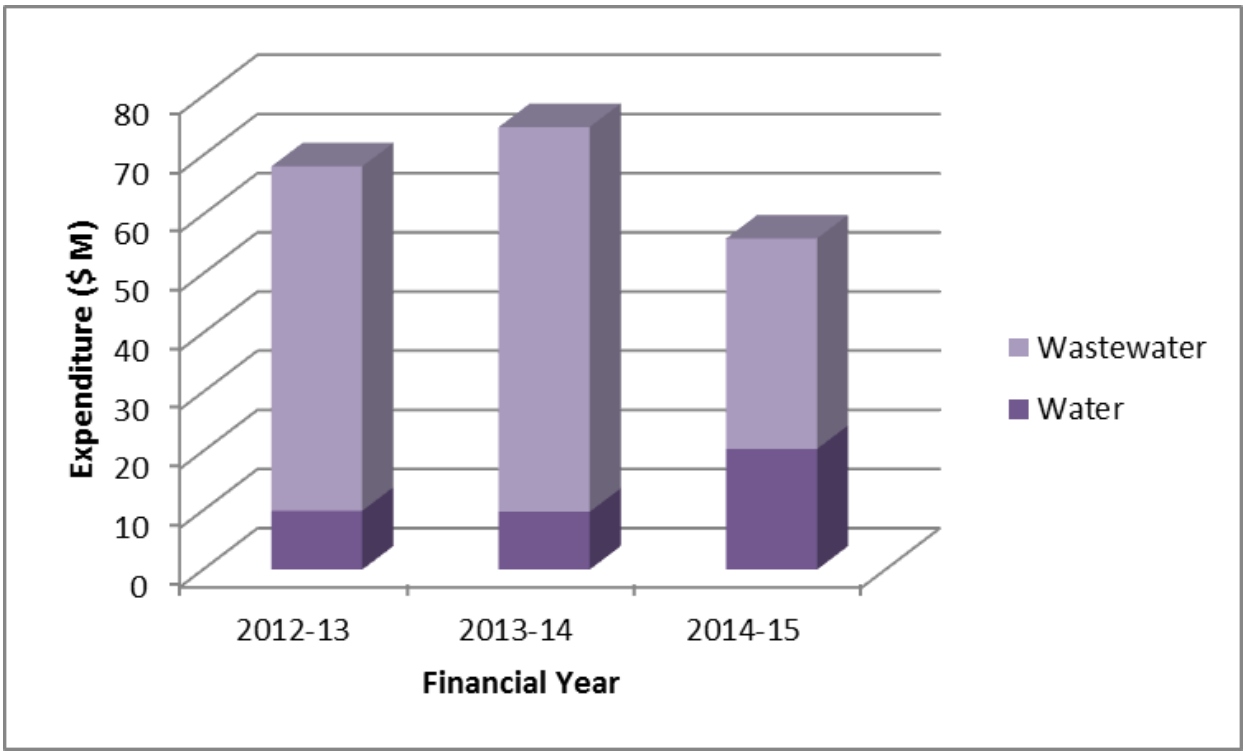
Logan City Council has reported of $131 M budgeted expenditure in the two years to the end of the financial year 2014-15.

Table 43 : Capital Expenditure (Logan City Council, 2013)

Expenditure	2013-14 ($M)	2014-15 ($M)	Total ($M)	Total (%)
Water	9.75	20.39	**30.14**	**23**
Wastewater	65.02	35.54	**100.56**	**77**
Total Capital expenditure	**74.77**	**55.93**	**130.69**	**100**

A breakdown of capital expenditure by product for the 2012-13 to 2014-15 financial years' budgets can be seen below in **Figure 5-1** below.

Figure 5-1 : Forecast capital expenditure for 2012-13 to 2014-15 by product (Logan City Council, 2013)



A breakdown of the total expenditure product is shown in **Table 44** .

Table 44 : Capital expenditure - by product (Logan City Council, 2013)

Product	2012-13 ($M)	2013-14 ($M)	2014-15 ($M)	Total ($M)
Water	9.92	9.75	20.39	**40.06**
Sewerage	58.18	65.02	35.54	**158.74**
Total	**68.11**	**74.77**	**55.93**	**198.80**

Review of the expenditure by region and product reveals that:

- The majority (80%) of expenditure over the three year reported period is incurred in respect of sewerage assets; water supply assets account for the remaining further 20%
- There is a slightly greater focus on sewerage services in 2013-14 over 2012-13 with an increase to 87% of the total capital expenditure; this is offset by a reduction in expenditure proportioned to water supply assets (13%). In 2014-15 there a greater focus on water supply services with an increase to 36% of the total capital expenditure; which is offset by a reduction in in expenditure proportioned to sewerage assets (64%)

The allocation of capital expenditure incurred in relation to each of the drivers is shown in **Table 45**.

Table 45 : Capital expenditure - by driver (Logan City Council, 2013)

Driver	2012-13 ($M)	2013-14 ($M)	2014-15 ($M)	Total ($M)
Growth	33.20	31.70	22.30	**87.20**
Renewals	12.10	20.80	26.30	**59.20**

Driver	2012-13 ($M)	2013-14 ($M)	2014-15 ($M)	Total ($M)
Improvement	20.40	19.90	7.00	**47.30**
Compliance	2.50	2.30	0.40	**5.20**
Total	**68.20**	**74.70**	**56.00**	**198.90**

Review of the expenditure by region and product reveals that:

- Expenditure over the three year reported period is principally driven by growth (44%) with renewals and improvement (30% and 24% respectively) and compliance making up the remaining 3%
- For 2013-14 the distribution of expenditure by driver is similar to the three year reported period; while for 2014-15 the predominate driver is renewals (47%) with growth secondary (40%) and improvement and compliance accounting the remaining 14% (13% and 1% respectively)

The dominance of growth and renewals projects is consistent with other water entities reviewed by SKM and with the projected growth in the number of connections due to increased population influx into the geographic area served by Logan Council.

5.2 Sample selection

A sample capital expenditure projects and programs for detailed analysis and review was selected by the Authority.

The capital expenditure projects and programs chosen for review are shown below in **Table 46.**

Table 46 : Capital expenditure programs reviewed – as incurred ($'000)

Project Name	Primary Driver	Previous years ($'000)	2013-14 ($'000)	2014-15 ($'000)	Total ($'000)
RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance	Growth	-	6,211	11,160	**17,371**
VA012 - SPS108 Rising Main Augmentation	Growth	-	1,092	4,700	**5,792**
S0014 - Crestmead Trunk Main Augmentation	Growth	-	-	6,230	**6,230**
UA007 - New Beith SRWP to Round Mountain Reservoir Water Conveyance	Growth	411	-	7,421	**7,831**
XA006 - Logan East PLMP and Fire Flow Project	Renewals	-	1,142	2,810	**3,952**
XMR00 - Water Reticulation Main Replacement	Renewals	2,752	2,058	5,000	**9,811**
Total Sample (6 Projects)		**3,163**	**10,504**	**37,321**	**50,988**

5.3 Detailed Investigations

The findings of the detailed investigations for each of the projects or programs reviewed are summarised in the following sections. Detailed reports for each project outlining the base assumptions for the below findings are presented in **Appendix A** to **Appendix F**.

5.3.1 RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance

This project involves the design and construction of a new wastewater pump station at Chambers Flat Road and approximately 3 km of DN600 rising main. This is the final project in the Logan Village to Kingston Wastewater Conveyance Strategy programme. The objective of the strategy is to provide sufficient wastewater conveyance capacity to meet the growth needs in Park Ridge East and Logan Village.

SKM considers that growth and renewal are appropriate drivers for the project given the anticipated growth in the catchment and the operational issues in the current main. SKM also considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM concludes that the project is prudent.

SKM considers that the project can be delivered within the 2014-15 financial year, although notes that as yet no delivery strategy has been identified.

From its cost benchmarking, SKM considers that the costs proposed by Logan City Council are within an acceptable range. As such, SKM finds the project to be efficient.

5.3.2 VA012 - SPS108 Rising Main Augmentation

The project involves the diversion of the Church Road Pump Station (SPS108) to the new Alfred Street Pump Station (SPS69) rising main via a proposed OD500 rising main. The objective of this project is to increase conveyance capacity in the network between SPS108 and between SPS108 and Alfred Street rising main augmentation, currently under construction, to cater for growth, while maintaining levels of service to the community.

SKM considers the driver of growth appropriate for this project as it will increase conveyance capacity in the network between SPS108 and the Loganholme wastewater treatment plant. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM concludes that the project is prudent.

Whilst the on costs on the project are higher than SKM's recommended on costs, SKM recognises that the significant design (and re-design) work undertaken for this project has resulted in a lower cost solution, and a better financial outcome for the project overall than originally planned. As such, SKM does not recommend a further reduction of on-costs for this project.

Overall, SKM finds the project to be prudent and efficient.

5.3.3 S0014 - Crestmead Trunk Main Augmentation

The Crestmead Trunk Main Augmentation forms part of the Park Ridge servicing strategy which involves the construction of one section of a wastewater conveyance system on the northern boundary of Park Ridge. This project was initially scheduled for delivery in the 2015-16 financial year at an estimated cost of $7,000,000, and subsequently brought forward into the 2014-15 financial year Capital Works Program. Subsequently the draft Northern Park Ridge Servicing Strategy Report was completed. The recommendation of this draft report is to defer the Crestmead Trunk Main Augmentation and other related projects until 2023.

SKM considers that, although growth will ultimately be the appropriate driver for this project, given the revised timing of developments within the catchment, the project is not currently needed. As such the proposed delay in the implementation of the project is appropriate.

As the project is anticipated to be deferred until 2023, SKM recommends the removal of the project expenditure from the current review period.

5.3.4 UA007 - New Beith SRWP to Round Mountain Reservoir Water Conveyance

Round Mountain reservoir provides storage to service growth within the Greater Flagstone Urban Development Area (UDA) and is able to provide a complimentary supply into the clear water tanks at the South Maclean Water Treatment Plant (WTP). To increase the supply capacity from the SRWP into the Round Mountain Reservoir, the construction of a new dedicated trunk main between the SRWP's Beaudesert (New Beith) offtake and the inlet valve chamber of the New Beith Road connection main is required.

The purpose of this trunk main is to increase the capacity of the Logan South network to fill the Round Mountain Reservoir from the SRWP. On the basis of the supporting evidence for the need for the project based on growth on a local and regional level, SKM concludes that the project is prudent.

SKM notes that the $7.83 M included in the template submission to the Authority does not align with the costs in the Design Task Report ($8.3 M) or the Project Change Request Register ($8.77 M). Unless further clarification is provided SKM recommends that the value in the Information Template submission to the Authority be accepted.

Overall, SKM finds the project to be prudent and efficient.

5.3.5 XA006 - Logan East PLMP and Fire Flow Project

The objective of this project is to address the monitoring and pressure management control systems failures across Logan East which has resulted in excessive pressures at various locations and below standard fire flow in other areas. This project will establish 12 district metered areas (DMAs) to provide improved services and compliance with Logan City Council's Desired Standards of Service (DSS).

The project includes approximately 1.6 km of DMA water main augmentations and 0.7 km of fire flow augmentations. The project also includes new telemetry, meters, and pressure reducing valve (PRV) controls at 15 DMA inlet structures across Logan East.

SKM considers that improvement and compliance are the appropriate drivers for the project given that the existing flow monitoring system was not maintained and is no longer operational, and given that sections of the network are not meeting fire flow requirements specified in the under the *SEQ Water Supply and Sewerage Design and Construction Code*. In addition the project should result in savings of $464,000 per year from both reduced water losses and reduction in burst repairs. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM concludes that the project is prudent.

In reviewing the cost estimates for the project, SKM considers the allowances for on-costs and contingency to be high. As such, SKM recommends the on-cost allowance be reduced to 20% of the direct costs and the contingency allowance be reduced to 20% of the direct costs. SKM's estimated value ($4.24 M) is higher than the value originally submitted by Logan City Council in the Information Requirement Template ($3.95 M). SKM suggests that the lower number be adopted until the variation can be resolved.

SKM finds the project the prudent and partially efficient.

5.3.6 XMR00 - Water Reticulation Main Replacement

The objective of this project is to improve the service continuity by extending the life of the asset group and reducing the unplanned water interruption. This is an annual program for the replacement of DN100 and DN150 water pipes in various locations within Logan City. Projects are prioritised through consideration of historical failures, visual condition inspection, failure consequence, and operational issues.

SKM considers that renewal is the appropriate driver for this project as failure to replace the water mains could result in service interruptions and income loss. SKM considers that the process used for the identification and prioritisation of water mains to be included in the program of works is appropriate as it is based upon a consideration of risk and asset management. However, SKM notes that no evidence of the implementation of the process has been provided. Nevertheless, SKM concludes that the project is prudent.

SKM considers that the development of cost estimates based on unit rates from historical delivery of the program is appropriate. In addition as the construction works will be awarded through a competitive tender process and hence will be market tested. SKM therefore concludes that the budget for the 2013-14 program to be generally efficient, but recommends a 5% reduction to account for high on-costs.

For the 2014-15 budget, no additional supporting information has been provided to account for the assumed 20% increase in contract rates. As such SKM recommends an adjustment to remove this increase in unit rates.

SKM finds the project the prudent and partially efficient.

5.4 Overall sample capital project review summary

A sample of six projects was assessed as a representative sample of the capital expenditure program Logan City Council for the 2013 to 2015 period. These projects have been assessed these against the Authority's definitions of prudency and efficiency, including the standards of service, scope of work, timeliness of delivery and the costs.

Of the six projects reviewed, half were found to be prudent and efficient. One was deferred through the Council's own planning systems and two were found not to be prudent and efficient. **Table 47** provides an overview of the final assessment made for each project or program.

Table 47 : Overview of prudency and efficiency of capital expenditure sample selection ($'000)

Project No.	Project Name	Assessment			Logan City Council Proposed[1]		Proposed Adjustment		SKM Recommended	
		Prudent	Efficient	Comment	2013-14	2014-15	2013-14	2014-15	2013-14	2014-15
RA007	Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance	✓	✓	Prudent and efficient	6,211	11,160	0	0	6,211	11,160
VA012	SPS108 Rising Main Augmentation	✓	✓	Prudent and efficient	1,092	4,700	0	0	1,092	4,700
S0014	Crestmead Trunk Main Augmentation	✗	✗	Project deferred by Logan City Council through revised planning process due to lack of growth	0	6,230	0	-6,230	0	0
UA007	New Beith SRWP to Round Mountain Reservoir Water Conveyance	✓	✓	Prudent and efficient	0	7,421	0	0	0	7,421
XA006	Logan East PLMP and Fire Flow Project	✓	✗	Reduction proposed to allow for high on costs.	1,142	2,810	0	0	1,142	2,810
XMR00	Water Reticulation Main Replacement	✓	✗	Reduction to allow for high on costs and unjustified increase in contract rates.	2,058	5,000	0	-1,219	2,058	3,781
	Total				**10,503**	**37,321**	**0**	**-7,449**	**10,503**	**29,872**

[1] *SEQ Revenue Monitoring - Information Requirement Template* (Logan City Council, 2013)

An area of concern found in two of the six project reviewed was a high value of on costs. The Logan Water Alliance Priority Infrastructure Plan: Unit Rates Report (March 2011) recommends the use of a 20% allowance for on costs for strategic and master planning. This is quoted as being based upon two sources:

- Advice given to the Authority by Evans and Peck[18] which suggested an accepted range being between 13% and 22%, which includes master planning, survey, geotechnical investigation, design, project management and contract documentation and environmental.
- A rate of 20% adopted by Cardno for project owner's costs

Based on its own project experience and a review of on costs for the entities under review, SKM suggests that a range of 12 to 20% should be adopted, depending on the complexity of the project.

The Logan Water Alliance was first established in 2009/10. As such, it is a long running alliance, and despite changes introduced due to the establishment and disestablishment of Allconnex Water, it is expected that the alliance would have mature and efficient systems. It is expected that these mature systems would lead to efficient the project management costs, and therefore low on costs.

In response to SKM's draft report, Logan City Council stated that it believes engineering judgement must be used to determine an appropriate rate depending on project complexity and risk. SKM agrees with this statement.

The Logan Water Alliance Priority Infrastructure Plan: Unit Rates Report (March 2011) also recommends the use of a 30% contingency allowance for master level infrastructure planning and a 20% contingency allowance for detailed planning. These values are considered in line with general industry standards. The Logan Water Alliance Priority Infrastructure Plan: Unit Rates Report (March 2011) does not make a recommendation in relation to the contingency allowance to be used beyond the planning phase. In SKM's opinion, the contingency applied should decrease as the design progresses, decreasing to between 5 to 10% in the construction phase.

In response to SKM's draft report, Logan City Council's considers this to be an acceptable range, "as demonstrated by the cost analysis of capital works items RA007, VA012 and UA007".

In three of the capital expenditure projects reviewed by SKM, the project fee was specifically identified in the cost estimates. The project fee is understood to be the fee to the Logan Water Alliance (Tenix, Cardno and Parsons Brinckerhoff). No documentation has been provided regarding whether this fee is standardised. In the projects reviewed where this value has been specifically identified, this value has been around 14% of direct project costs.

At the time of establishment of the Alliance, a project fee of around 14% would have been considered reasonable. Due to substantial changes in the market, this fee is now considered to be high.

In response to SKM's draft report, Logan City Council provided comments questioning this statement.

> *This comment overlooks the commercial reality of the alliance contract that Logan Council has entered into and is counter to good procurement practice. This issue was raised during IPART's 2012 review of Hunter Water with respect to the 'Hunter Treatment Alliance' which had been formed to deliver a number of wastewater treatment upgrades. IPART in 2010 had commissioned a review of the costs of this alliance which suggested that the alliance costs were above market rates. A subsequent review commissioned by Hunter Water by a former senior water industry executive with significant alliance experience found that:*
>
> - *The original contract was entered into at the lower end of market rates at the time. Subsequent tightening in the market had resulted in reduced margins generally but it was extremely difficult to estimate what the margins might be if the alliance was to go to market today.*
> - *When the contract was tendered it was competitively bid in the open market for a defined package of work and in all forms of contracting there needed to be fair dealing and particularly so with alliances.*

[18] Review of Infrastructure Charges Schedules On-Costs and Contingencies, presentation given by Evans and Peck and the QCA to local government, 2009

- *"The parties had entered into the contract in good faith and to attempt to renegotiate the margins mid-stream would be counter-productive and create a degree of mistrust and tarnishing of Hunter Water's image as a good client in the market place".*
- *The margins should not be renegotiated unless all parties agreed.*

IPART accepted this analysis and accepted the alliance costs as efficient.

The above findings are echoed by the National Alliance Contracting Guidelines which state regarding re-negotiating the commercial terms of an alliance that:

- *This decision should not be taken lightly*
- *The owner's representative and Alliance Leadership Team should not make this decision, only the owner should*
- *Appropriate commercial and legal advice should be obtained in relation to any change to the commerc ial terms.*

That is, any adjustment to commercial terms should be only undertaken with considerable deliberation and in full knowledge of the impacts (including potential unintended consequences). This is completely at odds with any suggestion to compare alliance rates to "anecdotal evidence".

- *To accept any adjustment this finding of SKM would:*
- *Be in breach of the commercial principles established by the parties when entering into a competitively procured, long-term contract*
- *Be in breach of good procurement practice*
- *Potentially damage Logan Council's reputation with contractors and lead to higher future costs*
- *Set a precedent that the QCA will need to adjust both up and down contractually agreed rates in future reviews*
- *Not be consistent with minimising whole of life-cycle costs for all Logan's water infrastructure.*

In addition, Logan City Council stated that:

The Logan Water Alliance utilises a robust projects approval process, independent estimators and a competitive tendering process to ensure projects are delivered at least cost to LCC.

Additionally, the use of a planning led alliance has led to the deferral of significant capital expenditure through the optimisation of the network performance and innovative solutions to complex infrastructure issues.

In just one project (the Slacks Creek to Loganholme sewerage pipeline duplication), an innovative solution developed by the Logan Water Alliance resulted in $84 million in capital cost savings when compared with Council's original solution….

Further, the discussion appears to imply that the project fee will be lower in 2014/15 and beyond. It is important to note that any project which is commenced by the LWA in 2013/14 (or earlier) and completed in a subsequent financial year will be subject to the contractual arrangement under the Logan Water Alliance. Accordingly the project fee for projects which extend into 2014/15 will not necessarily be lower.

SKM acknowledges that the alliance was competitively bid and as previously stated, the rates set at the time of the establishment of the alliance were reasonable. SKM notes that no changes to costs were proposed in its draft report relating to project fees. In addition, SKM notes that no recommendation was made that Logan City Council should have previously re-tendered the alliance.

notes that 2013-14 is the final year of the current Logan Water Alliance, and that Logan City Council is in the process of determining how projects will be delivered in future. SKM believes that Logan City Council's decision

to review how projects are delivered in future is prudent, as there have been changes to the market since the Alliance was established. SKM notes that the outcome of this review may be the recommendation of the continuation of a similar alliancing arrangement.

Extrapolation of findings for high on costs

The average reduction to on costs is shown in **Table 48**. Further details of the on costs used in each project are provided in each of the individual capital project reviews. Based on the projects reviewed, the average proposed reduction to on costs was 1.3%.

Table 48 : Average reduction in on-costs

Project	Proposed reduction to on costs	Associated cost reduction ($)
Crestmead Trunk Main Augmentation	0.0%[1]	$0[1]
Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance	0.0%	$0
SPS108 Rising Main Augmentation	0.0%	$0
New Beith SRWP to Round Mountain Reservoir Water Conveyance	0.0%	$0
Logan East PLMP and Fire Flow Project	2.6%	$237,031
Water Reticulation Main Replacement	5.0%	$77,888
Average	**1.3%**	**$52,486**

[1]Assuming no reduction to on costs would have been found, had cost data been reviewed.

Table 49 show the extrapolation of this reduction across the 2013-14 and 2014-15 programs of works.

Table 49 : Extrapolation to remaining capital expenditure budget – as incurred

Project	Capital Expenditure	
	2013-14 ($'000)	2014-15 ($'000)
Logan City Council Overall Program	$74,768	$55,927
Sampled projects	$10,503	$37,321
Sub-total	$64,265	$18,606
Proposed reduction based on 1.3% reduction	**$814**	**$236**
Revised value	**$73,954**	**$55,691**

5.5 Asset lives

Logan City Council has provided an information return outlining nominal asset lives for use in economic regulation to depreciate at the asset class level.

In response to SKM's draft report, Logan City Council stated:

> *Information on asset lives for asset additions was provided by Cardno as part of the asset valuation undertaken as at July 2013. The asset lives for assets transferred from Allconnex Water was based on the remaining life. Assets lives used for regulatory and tax assets are the same.*

The Authority's information requirement template allows information to be provided on the following two sheets.

- 5.8.1.1 Asset Lives Details for Regulatory Asset Base
- 5.8.1.2 Asset Lives Details for Regulatory Asset Base - Tax Purposes

These categories are considered below.

5.5.1 Useful lives for new assets

Information on asset lives for all asset types, including reservoirs, treatment and pump stations have been provided in Logan City Council's submission to the Authority. Asset lives for new assets are shown in **Table 50**.

Table 50 : Asset lives for new assets (Logan City Council, 2013)

Asset	Drinking water	Wastewater via Sewer	Trade waste
Reservoirs	70	-	-
Pump stations	25	40	40
Treatment	-	30	30
Associated telemetry and control systems	10	10	10
Meters	15	-	-
Sundry property, plant and equipment	10	10	10
Building other than infrastructure housing	40	40	40
Distribution infrastructure not included in another category	45	-	-
Mains	65	65	65

SKM has compared the provided asset lives to available benchmarks. The Water Services Association of Australia (WSAA), the Pressure Sewerage Code of Australia (WSA 07-2007 V1.1) and the WSAA Water Supply Code of Australia (WSA 03-2011) provide benchmarks for asset lives.

Table 51 presents benchmarks of selected asset lives and a comparison with those used by Logan City Council.

Table 51 : Benchmarking of asset lives

Asset	Benchmark	Comment
Water and Wastewater Distribution infrastructure	The WSA 07-2007 Pressure Sewerage Code of Australia V1.1 suggests a nominal asset design life of 100 years for pressure sewers and laterals and property discharge lines, 20 -30 years valves. The WSA 03-2011 Water Supply Code of Australia suggests a typical asset design life of 100 years for water mains, 30 years for valves.	A 65 year asset life for water infrastructure and wastewater infrastructure is reasonable.
Reservoirs	The WSA 03-2002 Water Supply Code of Australia suggests a typical asset design life of 50 years for reservoirs.	Compared to benchmarks, the assumption of a 70 year asset life appears high, however, from our experience many reservoirs are in service for longer than 50 years.
Treatment	No combined treatment asset life is provided.	Treatment consists of a number of civil, mechanical and electrical assets. A combined asset life of 30 years is reasonable.
Pump stations	The WSA 03-2011 Water Supply Code of Australia suggests a typical asset design life of 20 years for pumps (note that this contributes to the mechanical component only).	The assumption of a 25 year asset life for water pump stations a 40 year asset life for wastewater pump stations is reasonable.
Telemetry & SCADA	The WSA 03-2011 Water Supply Code of Australia suggests a typical asset design life of 15 years for SCADA.	The assumption of a 10 year asset life is reasonable.

5.5.2 Useful lives for new assets for tax purposes

Information on asset lives for major assets, such as reservoirs, treatment and pump stations have been provided in the Authority's Information Templates. As with the useful lives for new assets the same categories were not completed.

The TR 2013/4 Taxation Ruling Income tax: effective life of depreciating assets (applicable from 1 July 2013) discusses the methodology used by the Commissioner of Taxation in making determinations of the effective life of depreciating assets under section 40-100 of the Income Tax Assessment Act 1997 (ITAA 1997). The effective life of a depreciating asset is used to work out the asset's decline in value. (ATO, 2013)

The Commissioner makes a determination of the effective life of a depreciating asset by estimating the period (in years, including fractions of years) it can be used by any entity for a taxable purpose. In the Commissioners' determination, a number of factors are considered including:

- The physical life of the asset
- Engineering information
- The manufacturer's specifications
- The way in which the asset is used by an industry
- The level of repairs and maintenance adopted by users of the asset
- Industry standards
- The use of the asset by different industries
- Retention periods
- Obsolescence
- Scrapping or abandonment practices
- If the asset is leased, the period of the lease
- Economic or financial analysis indicating the period over which that asset is intended for use
- An analysis of the decline of market value of an asset class

It is important to note that the Commissioner does not consider that the physical life of an asset is necessarily its effective life because all the factors must be considered before an estimate of effective life is made. A consideration of these factors may often indicate that an asset's effective life is a period shorter than its physical life. (ATO, 2013).

SKM cross referenced the effective tax lives provided by Logan City Council with the 'Effective lives (Industry Categories)' Table A as at 1 July 2013 provided in the TR 2013/4 Taxation Ruling (ATO, 2013), where applicable and relevant.

Table 52 : Review of effective life

Asset	Drinking water	Wastewater via Sewer	Trade waste	Revised Effective Life (Tax)†
Reservoirs	70	-	-	80
Pump stations	25	40	40	25
Treatment	-	30	30	Comprised of a number of individual assets
Associated telemetry and control systems	10	10	10	10
Meters	15	-	-	20
Mains	65	65	65	80

† Determined through review of Australian Government TR2013/4 Taxation Ruling: Income Tax, effective life of depreciating assets (applicable from 1 July 2013)

The Authority Information Template refers to an asset class as opposed to individual assets, ie for treatment plants, sundry plant and equipment and establishment costs, which cannot be cross referenced with TR 2013/4 Taxation Ruling. Without a breakdown of individual asset types within the groups a revised effective tax life cannot be determined.

For the treatment plants asset group the components of an 'average' wastewater treatment plant were selected and assessed to determine the average effective life of the group of assets. The 'average' treatment plant assessed included pre-treatment comprising of sewer mains, pump station, screening and grit removal; secondary treatment comprising of biological nutrient removal assets (aerators and blowers, BNR tanks and mixers) and secondary clarifiers; and tertiary treatment comprising of UV disinfection, aerobic digesters, sludge thickening tanks, belt presses and sludge aerators and blowers. Additional assets incorporated for the overall operation of the plant included valves, chemical dosing pumps, flow meters, telemetry, variable speed drives, chlorine residual analysers, pH meters, dissolved oxygen probes, level sensors, etc. Based on a simplistic calculation, including one of each asset type, the median effective life is 25 years. This is comparable to the 30 years suggested by Logan City Council. It should be noted that this calculation was performed to determine a relative figure. For a more accurate determination the Authority's Information Requirement Template would need to be modified to include all asset types, and the quantities, at each treatment plant.

In response to SKM's draft report, Logan City Council stated:

> *The average useful for treatment plant was derived from the Cardno valuation as at 1st July 2012. Cardno valued asset types (eg. pipe work, valves, electrical, mechanical) within processes (eg. clarification, dewatering, effluent) for each treatment plant. The average useful life was calculated using the sum of the replacement costs and annual depreciation for these asset types.*

SKM agrees that the above calculation, based on actual data for each treatment plant, will result in a more accurate estimate of average useful life.

Effective lives for systems such as billing and corporate are not covered by the taxation ruling and therefore cannot be assessed, however as a billing system would largely comprise of computer equipment SKM considers that a life of three to four years is reasonable. Buildings do not have any direct correlation with any asset and life included in the TR 2013/4 Taxation Ruling, therefore a revised effective tax life cannot be determined.

It should also be noted that whilst SKM offers opinion based on publicly available information and our interpretation is based on experience, the above should not be interpreted by either the Authority or by Logan City Council as tax advice. Therefore, although SKM can advise that effective lives do not correlate to TR 2013/4 Taxation Ruling guidance; it is recommended that Logan City Council seeks guidance from its accountants/auditors regarding estimates of effective asset lives for tax purposes.

In response to SKM's draft report, Logan City Council stated:

> *Logan City Council self assesses the effective life of assets for our tax asset register based on our experience and incorporates specialist advice such as that received from Cardno in the recently undertaken asset valuation. Logan City Council's tax asset register received audit certification as part of Council's financial statements for the financial year ended 30th June 2013.*

SKM notes that the above statement agrees with SKM recommendation to seek guidance from accountants/auditors regarding estimates of effective asset lives for tax purposes.

6. Conclusions and recommendations

6.1 Policies and procedures

The outcomes of the policies and procedures review are summarised in **Table 53**.

Table 53 : Conclusions of business process review

Requirements	Capital expenditure policies and procedures	Operating expenditure policies and procedures
Has a standardised approach to cost estimating	Yes, but not robust	Not applicable
A summary document is prepared	Yes and robust	Not applicable
An implementation strategy is prepared	Yes and robust	Not applicable
Has a gateway review process	Yes and robust	Not applicable
Includes detailed analysis of options for major projects	Yes and robust	Not applicable
Has a benefits realisation assessment process	Yes, but not robust	Not applicable
Includes requirements to comply with relevant legislation	Yes and robust	Not applicable
Includes requirements to take account of regional issues.	Yes and robust	Not applicable
Only commissioned capital expenditure from 1 July 2010 is included in the RAB	Yes	Not applicable
Overall expenditure program and delivery processes	Yes	No
Asset management in accordance with good industry practice	No	No
Procurement in accordance with good industry practice	Yes	Yes
Budget formation in accordance with good industry practice	Yes	Yes

6.2 Operating costs

In general, SKM is of the opinion that the 2012-13 budget submitted by the Logan City Council is not robust and a number of adjustments needed to be made to the 2012-13 budget. This is considered largely attributable to the transition from Allconnex. Logan Council has advised that it considers the quality and quantity of information accompanying the transfer to be of insufficient quality to enable robust capital and operating expenditure business cases to be compiled. However, the 2013-14 budget demonstrates a greater level of robustness as they were based on information and parameters set by Logan Council.

In relation to corporate costs, in the absence of sufficient benchmarking information and base year data, SKM concludes that Logan City Council's corporate costs budgets are prudent, but could not assess their efficiency. SKM is of the view that, based on experiences with other entities and industries, operating efficiencies of 2% per annum in corporate costs would be achievable in 2013-14.

SKM considers that the water and wastewater employee budget proposed by Logan City Council is reasonable. This assessment is based on the 3.5% cost category escalation from the adjusted 2012-13 baseline for 2013-14 and 4% for 2014-15. However, SKM considers that Logan City Council has not factored a vacancy rate into consideration in the recruitment of additional staff for 2012-13 and 2013-14 and in staff turnover for 2013-14 and 2014-15. Taking this into consideration, SKM is of the view that the proposed 2012-13 budget estimate is reasonable as it is equivalent to a vacancy rate of 3% over the year. SKM considers that the average vacancy rate for 2013-14 will be approximately 2.5% and for 2014-15 approximately 2%. The employee expenses recommended by SKM have been reduced by this amount. SKM also concludes that the proposed 2013-14 and

2014-15 contractor expenses are efficient. This is after taking into consideration adjustments to the actual 2012-13 contractor expenditure and allowing for identified additional expenditure in 2013-14.

SKM found the Logan City Council electricity expenses forecast to be unsatisfactory. SKM acknowledges that Logan City Council has only recently resumed control of water and wastewater services from Allconnex and that the quality and quantity of data available to the Council for electricity expenses is both limited and in some cases dated because of the electricity retailer's failure to supply up to date invoices. Billing errors also exist due to the transfer of assets from Allconnex to Logan City Council. The need to make adjustments associated with the transition from Allconnex makes estimating future expenditure more uncertain. Nevertheless, SKM is of the opinion that a 21% price rise for electricity in 2013-14 is excessive and recommends applying a price rise of 11.6%, reflecting the midpoint of the AEMC's estimate for price increases that has not included a number of Queensland specific pass through events and the Authority's estimated price rise for small businesses. While SKM is of the opinion that the 2.6% load growth assumed by the Logan City Council is appropriate for 2013-14 as no reason has been provided regarding why this growth should fall to 1.6% in 2014-15, SKM recommends maintaining the growth rate at 2.6% for 2014-15.

SKM has assessed the proposed other materials and services expenditure for Logan City Council and is of the view that in the contact of the uncertainty of the transition from Allconnex, the 2012-13 and 2013-14 expenditure is efficient. However, there is not sufficient information to make the same assessment for 2014-15 and SKM is of the view that the increase proposed for the 2014-15 expenses for other materials and services be reduced to 2.2% from the proposed 3.2%, consistent with the Council's Budget Guide 2013-14.

6.2.1 Recommended adjustments to operational expenditure

The following reductions to the 2013-14 and 2014-15 forecasts are recommended:

- Corporate Costs - SKM recommends that based on experiences with other entities and industries, operating efficiencies of 2% per annum in corporate costs would be achievable in 2013-14.
- Employee Expenses - SKM recommends that the employee expenditure proposed by Logan City Council be reduced by about $455k in 2013-14 and $380k in 2014-15
- Electricity – SKM's recommended expenditure for electricity result in a reduction in electricity expenses for 2013-14 of $260,000 and $455,000 in 2014-15 over that provided in Logan Councils budget and Information Template submission.
- Other Materials and Services - SKM recommends that the increase proposed for the 2014-15 expenses for other materials and services be reduced to 2.2% consistent with the Council Budget Guide 2013-14 which equates to a reduction of $120,700.

Table 54 : Summary of reductions to 2013-14 operating expenditure forecast (values in nominal $'000)

Category	2013-14 submission $	Recommended reduction $	Revised 2013-14 budget $	Variance
Corporate Costs	5,434.00	-109.00	5,325.00	-2%
Employee Expenses	18,193.20	-454.80	17,738.40	-2.5%
Contractor Expenses	7,492.70	0.00	7,492.70	0%
Electricity	3,316.00	-260.20	3,055.80	-8%
Other Materials and Services	11,991.60	0.00	11,991.60	0%
Total 2013-14 forecast[19]	106,668.50	-824.00	105,844.50	-1%

[19] There are other categories included in the total 2013-14 forecast, and therefore these values are not the summation of the individual categories shown

Table 55 : Summary of reductions to 2014-15 operating expenditure forecast (values in nominal $'000)

Category	2014-15 submission	Recommended reduction	Revised 2014-15 budget	Variance
Corporate Costs	5,551.00	-111.00	5,440.00	-2%
Employee Expenses	18,928.70	-378.60	18,550.10	-2%
Contractor Expenses	7,719.70	0.00	7,719.70	0%
Electricity	3,634.30	-455.30	3,179.00	-13%
Other Materials and Services	12,376.10	-120.70	12,255.40	-1%
Total 2014-15 forecast[20]	114,172.40	-1,065.60	113,106.8.80	-1%

6.3 Capital expenditure

From SKM's detailed review undertaken in respect of the six sampled projects, three projects have been demonstrated to be prudent and efficient:

- Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance project
- The SPS108 Rising Main Augmentation project
- The New Beith SRWP to Round Mountain Reservoir Water Conveyance project

SKM has recommended that the allowed 2013-15 expenditure be reduced for:

- The Crestmead Trunk Main Augmentation as the project has been deferred due to lack of growth
- The Logan East PLMP and Fire Flow Project due to high on-costs
- The Water Reticulation Main Replacement Project due to high on-costs and for unjustified increase in contract costs.

SKM recommends that the 2013-15 forecast expenditure in respect of the sampled projects is reduced by $7.4 M, which represents a 16% reduction in the forecast expenditure ($47.8 M) for those projects. Of this $7.4 M, the majority ($6.2 M) is due to the deferred costs from the Crestmead Trunk Main Augmentation Project, which was identified for deferral through Logan City Council's planning processes.

From SKM's detailed review undertaken in respect of the six sampled projects, SKM recommends that the allowed 2013-15 expenditure be reduced for two of the six projects due to high on costs. On the basis of extrapolating a 1.3% reduction in on costs across the un-sampled projects, SKM recommends a further reduction in costs of $ 1.05 M.

Overall, SKM proposes a reduction of $8.5 M for the capital expenditure for the 2013 to 2015 review period.

6.3.1 Recommended adjustments to capital expenditure

Table 56 shows the recommended reduction in costs to the sampled projects.

[20] There are other categories included in the total 2014-15 forecast, and therefore these values are not the summation of the individual categories shown

Table 56 : Overview of prudency and efficiency of capital expenditure sample selection

Project No.	Project Name	Assessment			Logan City Council Proposed[1]		Proposed Adjustment		SKM Recommended	
		Prudent	Efficient	Comment	2013-14	2014-15	2013-14	2014-15	2013-14	2014-15
RA007	Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance	✓	✓	Prudent and efficient	6,211	11,160	0	0	6,211	11,160
VA012	SPS108 Rising Main Augmentation	✓	✓	Prudent and efficient	1,092	4,700	0	0	1,092	4,700
S0014	Crestmead Trunk Main Augmentation	✗	✗	Project deferred by Logan City Council through revised planning process due to lack of growth	0	6,230	0	-6,230	0	0
UA007	New Beith SRWP to Round Mountain Reservoir Water Conveyance	✓	✓	Prudent and efficient	0	7,421	0	0	0	7,421
XA006	Logan East PLMP and Fire Flow Project	✓	✗	Reduction proposed to allow for high on costs.	1,142	2,810	0	0	1,142	2,810
XMR00	Water Reticulation Main Replacement	✓	✗	Reduction to allow for high on costs and unjustified increase in contract rates.	2,058	5,000	0	-1,219	2,058	3,781
	Total				**10,503**	**37,321**	**0**	**-7,449**	**10,503**	**29,872**

[1] *SEQ Revenue Monitoring - Information Requirement Template* (Logan City Council, 2013)

Table 57 shows the recommended reduction in costs to the remaining un-sampled projects.

Table 57 : Extrapolation to remaining capital expenditure budget – as incurred

Item	Capital Expenditure	
	2013-14 ($'000)	2014-15 ($'000)
Logan City Council Overall Program	$74,768	$55,927
Less sampled projects	$10,503	$37,321
Sub-total	$64,265	$18,606
Proposed reduction	**$814**	**$236**

Table 58 shows the resulting overall recommended reduction in costs for the 2013-14 and 2014-15 years.

Table 58 : Extrapolation to remaining capital expenditure budget – as incurred

Project	Capital Expenditure	
	2013-14 ($'000)	**2014-15 ($'000)**
Logan City Council Overall Program	$74,768	$55,927
Reduction in sampled projects	$0	$7,449
Reduction in un-sampled projects	$814	$236
Overall reduction	$814	$7,685
Logan City Council Overall Program - Revised	**$73,954**	**$48,242**

Detailed analysis of capital expenditure projects is provided in Appendices A to F.

Appendix A. RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance

A.1 Project description

This project involves the design and construction of a new wastewater pump station at Chambers Flat Road and approximately 3 km of DN600 rising main. The project is anticipated to be completed by the end of the 2014-15 financial year. (Logan City Council, 12 March 2013).

This is the final project in the Logan Village to Kingston Wastewater Conveyance Strategy programme. The objective of the strategy is to provide sufficient wastewater conveyance capacity to meet the growth needs in Park Ridge East and Logan Village. (Logan City Council, 13 March 2013).

The other two projects previously completed are:

- Logan Village to Chambers Flat Conveyance Project
- School Road to Chambers Flat Conveyance Project (Logan City Council, 12 March 2013).

A.2 Proposed capital expenditure

Table A.1 shows the proposed cost of the Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance project within the 2013-15 budget.

Table A.1 : Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance project proposed capital expenditure ($'000)

Source	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Subsequent years ($'000)	Total ($'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	0	6,211	11,160	0	17,371
20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15	0	6,211	11,160	0	17,371

The expenditure provided in the two documents is identical.

A.3 Documentation reviewed

The key reference documents used for this review are:

- *Summary for: RA007 Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance* (Logan City Council, no date)
- *Memo to ALG from APMT, re: 92-12-03 – Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance – Detailed Design* (Logan Water Alliance, 23 August 2013)
- *Project Change Request Register* (Logan City Council, 13 March 2013)
- *DCEO Approval Memorandum - Chambers Flat Road Pump Station to Kingston Wastewater Conveyance Project (Design Only)* (Logan City Council, 12 March 2013)
- *Project Change Request* (Logan City Council, 26 July 2013)
- *Change request/ Exception report – QP-2234* (Allconnex Water, 23 February 2012)
- *QP-2201 Project Brief* (Allconnex Water, 24 January 2012)

- *Logan Village to Kingston Wastewater Preliminary Design* (Logan Water Alliance, October 2011)
- *Logan Village to Kingston Wastewater Servicing Plan* (Logan Water Alliance, October 2011)

A.4 Key drivers

The primary cost driver identified by Logan City Council for this project is growth with a secondary driver of improvement.

The driver of growth is supported by the *DCEO Approval Memorandum* (Logan City Council, 12 March 2013) which states that:

> *"The catchment of the Chambers Flat pump station has grown significantly in recent times due to construction of new infrastructure which connects new developments and growth areas to the pump station.*
>
> *The existing infrastructure was not sized to cater for this growth, and hence the likelihood of operational difficulties will be increased if the infrastructure is not augmented.*
>
> *Significant future growth has also been identified in the catchment, which will exacerbate hydraulic capacity issues.*
>
> *Failure to increase to hydraulic capacity in this network will lead to an increased risk of:*
>
> - *Uncontrolled wastewater spills*
> - *Possible dry weather spills in the event of asset failure*
> - *Public health and safety*
> - *Environmental harm"*

The DCEO Approval Memorandum (Logan City Council, 12 March 2013) further states:

> *"The Chambers Flat pump station catchment has an existing population of approximately 12,000 EP which will increase to approximately 40,000 EP by 2023 and 123,000 EP by ultimate development."*

At the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 10 October 2013), Logan City Council stated that the originally proposed aggressive development in the Infrastructure Demand Model (IDM) had not been realised and that the IDM is currently under review. Whilst the predicted aggressive development has not occurred, Logan City Council advised that their review of revised population projections for this project revealed that the project is still needed. In addition, this project is required to be completed to allow received the flows from the two already completed projects (Logan Village to Chambers Flat Conveyance and School Road to Chambers Flat Conveyance).

The driver of improvement is supported by the DCEO Approval Memorandum (Logan City Council, 12 March 2013) which states that:

> *"The existing DN375 uPVC rising main from Chambers Flat PS has had operational difficulties in the past. A number of bursts have been reported in this main, likely to be as a result of surge or fatigue in the main."*

At the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 10 October 2013), Logan City Council stated that the issues currently experienced arise from the fact that the pump station is undersized for Peak Wet Weather Flow (PWWF) and from electricity supply issues at the site resulting in the need for a generator to be located at the site.

SKM considers that growth and improvement are appropriate drivers for the project given the anticipated growth in the catchment and the operational issues in the current main.

A.5 The scope of works

A.5.1 Solutions development

The project solution was developed as part of the overall servicing strategy in the *Logan Village to Kingston Wastewater Servicing Plan* (Logan Water Alliance, October 2011). For the Chambers Flat Road Pump Station and Network two options were considered:

- Option A: Refurbish existing Chambers Flat Road Pump Station
- Option B: Construct a new pump station adjacent to the existing pump station

Capital cost and net present cost (NPC) estimations were undertaken for the proposed options. Option A (retrofitting the existing asset) was determined as the most cost effective solution. A non-cost assessment was undertaken to assess the options for feasibility issues, as well as assess the impacts that the options are likely to have on the surroundings both during construction in the short term, and during operation up to 2026. Each option was assessed on environmental risk, community risk and constructability risk. Option A was determined to have the lower overall risk. Option A was determined as the preferred option based on this cost and non-cost assessment (Logan Water Alliance, October 2011).

The two options were re-visited in the preliminary design phase, with 'Refurbish existing Chambers Flat Road Pump Station' identified as Option 1 and 'Construct a new pump station adjacent to the existing pump station' as Option 2. The preferred option from the *Logan Village to Kingston Wastewater Preliminary Design* (Logan Water Alliance, October 2011) report was Option 2. The report states:

> *"Previous studies have recommended augmentations and retrofitting of this network to allow for short term growth. However, as there is a possibility that the proposed works as described in this study may be in operation for longer than originally envisaged (15 years), the feasibility of previous recommendations needs to be assessed to minimise operational issues and risk.*
>
> *Following an assessment of these options, the option to construct a new pump station (option 2) is preferred. This asset will be operational for at least 15 years (based on projected growth). It is essential that any upgrades in the system will provide reliable and low risk conveyance of wastewater from the catchment. There are many unknowns associated with the construction and operation of the refurbishment option, and it carries a significantly higher risk in this regard."*

Attachment A, the Project Brief / Design Task Budget Request, of the *DCEO Approval Memorandum* (Logan City Council, 12 March 2013) states:

> *"The recommended option from the Preliminary Design phase was revised in the initial Detailed Design phase. An opportunity to save capital cost was identified, and several variations of this option were developed to a concept level. An MCA was undertaken, and a preferred option was selected"*

The scope of the preferred option is:

- A new wastewater pump station at Chambers Flat Road, 6 m diameter by 12 m depth capable of pumping 611 L/s
- A new electrical switch room
- Approximately 3 km of DN600 rising main (Logan City Council, 12 March 2013)

SKM considers that an appropriate options evaluation process has been undertaken, an appropriate options has been selected out of that process and the scope of work is appropriate for the purpose described.

A.5.2 Project delivery

The *Logan Village to Kingston Wastewater Preliminary Design* and the *Logan Village to Kingston Wastewater Servicing Plan* were both completed by the Logan Water Alliance in October 2011. The Logan Water Alliance commenced detailed design in February 2013.

The detailed design for the project is currently being completed. Logan City Council has proposed to delay the delivery of the project until the 2014-2015, by which time Logan City Council's contract with the Logan Water Alliance will have expired.

The *Summary for: RA007 Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance* (Logan City Council, no date) states:

> *"As the delivery of this project has been deferred until FY2014/15 it will be delivered under a new arrangement which is yet to be determined. Future procurement and delivery process and policies will be implemented under this new arrangement.*
>
> *All works to be undertaken outside any new arrangement will be in accordance with Logan City Council procurement and delivery processes and policies."*

According to the *Preliminary Schedule - Chambers Flat to Kingston Conveyance* (Logan City Council, 25 June 2013) the construction of the project will take approximately 10 months. Based on this, SKM concludes that the project can be delivered within the 2014-15 financial year.

A.6 Standards of service

The standards used for this study were based on Review of Desired Standards of Service, undertaken by the Logan Water Alliance in September 2010 as part of the PIP project (Logan Water Alliance, October 2011). The key standards used for the project are outlined in **Table A.2**.

Table A.2 : Key Standards Adopted (Logan Water Alliance, October 2011)

Parameter		**Criteria**
Wastewater load	Average Dry Weather Flow (ADWF)	200 L/EP/day
	PWWF	Commercial 1,300 L/EP/d
Gravity Main Design	Depth of flow @ PWWF – Existing	Up to 1m below MH surface level and no spillage through overflow structures
	Depth of flow @ PWWF – Proposed	75% of pipe depth
Rising Main Design	Minimum velocity	Minimum velocity shall be not less than 0.9 m/s, but 1.5 m/s preferred
	Maximum velocity	2.5 m/s proposed systems

SKM reviewed these criteria against industry standards. SKM considers that the standards are appropriate

In relation to the 'Standard of Work', the *DCEO Approval Memorandum* (Logan City Council, 12 March 2013) states that:

> *"The next phase of this project will take account of:*
>
> - *Logan City Council Standard Specifications*
> - *WSA Codes*
> - *Relevant Australian Standards*
> - *Relevant Codes of Practice*
> - *Project Specification*

- *Consideration of input from Logan City Council Water Operations"*

SKM considers that these are appropriate for the project.

A.7 Project cost

The *QP-2201 Project Brief* includes a total estimated project cost of $18.405 M, which is based on a first principles estimate (Allconnex Water, 24 January 2012).

The Attachment A, of the *Memo to ALG from APMT*, the *Chambers Flat PD to Kingston Wastewater Conveyance (Design Only) – 92-12-03 – Project Brief* (Logan Water Alliance, 23 August 2013) includes a total estimated project cost of $15.73 M. It states that the estimated was developed from detailed cost estimates and quotes with an accuracy of ± 10%. The distribution of the expenditure is outlined below.

Table A.3 : Project Cost ($'000) (Logan Water Alliance, 23 August 2013)

2012-13	2013-14	2014-15	Total
800	5,102	9,824	15,726

A number of change requests have been submitted for the project

- Change request 1 – planning investigations subsequent to the completion of the Preliminary Design Report indicated that population projection for the Logan South area were not as high as originally identified and therefore the delivery of the work could be delayed until 2014-15 (Allconnex Water, 23 February 2012)
- Change request 2 – included a change to the timing of the delivery of the project (to be completed in the 2013-14 financial year) and an increase in the budget by $1.51 M for additional owners risk, project management and other miscellaneous works (Logan City Council, 26 July 2013)
- Change request 2 – also included a decrease in the project budget by $2.68 M subject to TOC Report (Logan City Council, 26 July 2013)

The *Memorandum: QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 051-059* (Logan City Council, 15 October 2013) included the following breakdown of project costs.

Table A.4 : Breakdown of project costs (Logan City Council, 15 October 2013)

Description	Approved Budget	Percentage of capital works
Preliminary Delivery Estimate	15,726,000	
Detailed Design Fee	766,402	5%
Detailed Design Budget Adjustment	186,648	1%
Program Management	601,404	4%
Miscellaneous	90,950	1%
Total	**17,371,404**	

The owner's costs on the project account for approximately 10% of the direct costs. SKM considers that this is on the low side for recommended on costs and is therefore acceptable. No contingency allowance has been identified for this project.

SKM developed a cost estimate for components of the rising main, gravity main and pump station aspects of the project based on rates from the Priority Infrastructure Plan Unit Rates Report and unit rates from recent projects. A comparison of SKM's estimated cost and Logan City Council budget in presented below.

Table A.5 : Comparison of cost estimate

Aspect	Logan City Council†	SKM	Difference	
			Value ($)	Percentage (%)
Rising main	$4,292,725	$3,620,989	-$ 671,736	-16%
Gravity main	$1,548,251	$1,149,385	-$398,866	-26%
Pump station	$2,481,382	$1,696,849	-$784,533	-32%
Total	**$8,322,358**	**$6,467,223**	**-$1,855,135**	**-22%**

† Source *DCEO Approval Memorandum - Chambers Flat Road Pump Station to Kingston Wastewater Conveyance Project (Design Only)* (Logan City Council, 12 March 2013)

As can be seen from the **Table A.5**, SKM's estimated cost for components of the rising main, gravity main and pump station aspects of the project is approximately 22% lower than Logan City Council's estimate.

SKM considers that the costs proposed by Logan City Council are acceptable given the lack of additional contingency allowance and low on-costs.

A.8 Efficiency gains

The *Summary for: RA007 Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance* (Logan City Council, no date) states:

> *"Packaging these works allows for a smooth transition between the existing system and the proposed system. These works should not impact on the operation of the current assets. Construction of the incoming main, the pump station and rising main at the same time reduces toe risks associated with excavation near live assets in the future. The incoming main acts as emergency storage in the short term, and longer term will have capacity to convey larger flows to the new pump station."*

A.9 Implications for operating expenditure

No implications for operating expenditure have been identified for this project.

A.10 Policies and procedures

Table A.6 below identifies how the project has complied with the appropriate policies and procedures.

Table A.6 : RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	The project is part of the wider Park Ridge MDA and the Logan North Wastewater Catchment works and is the final of 3 projects in the area.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Yes	A number of alternative strategies such as loading shedding and the construction of an intermediate pump station were considered but found not to be viable.
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	No	The *Priority Infrastructure Plan Unit Rates Report* (Logan Water Alliance, 3 March 2011) outlines a methodology for cost estimation including recommended percentages for Owner's costs and contingencies. The values used for this project are lower than those proposed in this document.

Initiative	Achievement (Yes/No/Partial)	Comment
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	*Summary for: RA007 Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance* (Logan City Council, no date)
An implementation strategy to be developed for each major project	No	No evidence of an implementation strategy has been provided. Logan City Council is undertaking a review of how projects in 2014-15 onwards will be delivered.
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	Yes	Logan City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements. However, in accordance with the *Memorandum – QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 60: Council Approval Process* (Logan City Council, 21 October 2013) SKM would expect to see: • Project Brief • Adoption Memorandum and Planning Report Summary • Evidence of Capital Works Program Reviews All of these documents (or similar) have been provided for this project.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	As the project involves the construction of a new PS and associated mains which connects into existing infrastructure, the project took into consideration of existing infrastructure.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

A.11 Prudency and efficiency

SKM considers that growth and renewal are appropriate drivers for the project given the anticipated growth in the catchment and the operational issues in the current main. SKM also considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM concludes that the project is prudent.

SKM considers that the project can be delivered within the 2014-15 financial year, although notes that as yet no delivery strategy has been identified.

From its cost benchmarking SKM considers that the costs proposed by Logan City Council are acceptable given the given the lack of additional contingency allowance and low on-costs. As such, SKM finds the project to be efficient.

A.12 Assessment of reported expenditure

Table A.7 below identifies the revised capital expenditure for the RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance project.

Table A.7 : RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance project revised capital expenditure

Project	2013-2014 ($'000)	2014-2015 ($'000)	Total ($'000)
RA007 - Chambers Flat Road Pump Station to Princess Street Marsden Wastewater Conveyance	6,211	11,160	17,371
SKM proposed value	6,211	11,160	17,371
Variation (to QCA submitted value)	0	0	0

A.13 Extrapolation to other projects

Given the unique nature of this project and the fact that no systemic issue has been identified with the processes applied by Logan City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix B. VA012 - SPS108 Rising Main Augmentation

B.1 Project description

The project involves the diversion of the Church Road Pump Station (SPS108) to the new Alfred Street Pump Station (SPS69) rising main via a proposed OD500 rising main.

The objective of this project is to increase conveyance capacity in the network between SPS108 and SPS 134 to cater for growth to cater for growth, while maintaining levels of service to the community.

B.2 Proposed capital expenditure

Table B.1 shows the proposed cost of the SPS108 Rising Main Augmentation project within the 2013-15 budget.

Table B.1 : SPS108 Rising Main Augmentation project proposed capital expenditure ($'000)

Source	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Total ($'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	0	1,092	4,700	5,792
Task 90-12-06 - SPS108 Rising Main Augmentation Presentation (Logan Water Alliance, September 2013)	0	1,860	3,270	5,130
20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15	0	1,093	4,700	5,793

The total project costs vary depending on the source of the information provided to SKM. SKM understands from advice from Logan City Council that the template submitted to the Authority and the *20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15* spread sheet represents the latest and hence most accurate project costs.

B.3 Documentation reviewed

The key reference documents used for this review are:

- *Summary for: VA012 – SPS108 Rising Main Augmentation* (Logan City Council, no date)
- *Task 90-12-06 - SPS108 Rising Main Augmentation Presentation* (Logan Water Alliance, September 2013)
- *SPS108 Rising Main Augmentation - Project Brief, Business Case, Prudency and Efficiency Test*, (Logan City Council, September 2012)
- *Wastewater Pump Station SPS108 Rising Main Augmentation - Detailed Planning* (Logan Water Alliance, August 2012)
- *Logan North Wastewater Strategy* (Logan Water Alliance, May 2010)

B.4 Key drivers

The primary cost driver identified by Logan City Council for this project is growth with renewal identified as a secondary driver.

In support of the growth driver the *SPS108 Rising Main Augmentation - Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, September 2012) states:

"Many of the existing infrastructure assets in the SP108 catchment are currently operating at capacity, and there is a history of overflows and performance issues in the catchment. Significant growth has been identified in the SPS108 catchment, which will exacerbate the hydraulic capacity issues in the catchment.

Failure to increase the hydraulic capacity in this network will lead to an increased risk of:

- Wastewater surcharging at pump station SPS108
- Uncontrolled wastewater spills
- Possible dry weather spills in the event of asset failure
- Public health and safety
- Environmental harm"

The *Task 90-12-06 - SPS108 Rising Main Augmentation Presentation* (Logan Water Alliance, September 2013) identifies that the existing Church Road Pump Station (SPS108) has a combined pump rate of 140 L/s. The predicted growth in the catchment is outlined below.

Table B.2 : Growth in Church Road Pump Station (SPS108) catchment

	2012	2016	2021	2026	2031	2051	Ultimate
Population (EP)	11,825	14,850	16,001	16,677	16,762	18,511	18,511
PWWF (l/s)	178	223	241	251	252	279	279

In support of the renewal driver the *SPS108 Rising Main Augmentation - Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, September 2012) states:

"An informal assessment suggests that the existing DN300 AC rising main is in poor condition for the following reasons:

- *The main has been subject to surge pressures due to the profile of the main*
- *The main was construction in 1983 and hence is coming towards the end of its asset life*

There is an increased risk of asset failures if this asset continues to operate, particularly if the load is to increase as a result of growth in the pump station catchment."

The *Wastewater Pump Station SPS108 Rising Main Augmentation - Detailed Planning* (Logan Water Alliance, August 2012) report states:

"The condition of the assets in this study area is not well known. LCC have recently inherited the assets in this catchment from GCCC, and hence do not have all of the historical information regarding recorded bursts, operational failures, and customer complaints. Based on anecdotal evidence and a desktop assessment, it has been deduced that there is an existing surge issue in the SPS108 rising main. It is therefore assumed that sections of this rising main are in poor condition.

This main is 30 years old and has a history of operational issues. It is likely that any assessments such as surge analysis and condition assessment will take a conservative approach and would recommend for large sections of the main to be replaced immediately."

SKM considers the driver of growth appropriate for this project as it will increase conveyance capacity in the network supported by SPS108 to cater for projected growth.

B.5 The scope of works

B.5.1 Solutions development

A number of options were considered in the *Wastewater Pump Station SPS108 Rising Main Augmentation - Detailed Planning* report (Logan Water Alliance, August 2012). These options included:

- "Do Nothing"
- Non infrastructure options such as changes to pump station control, cross connections or flow sharing and challenging the Desired Standards of Service
- Inter catchment transfers and flow diversion options such as transfer to the Tanah Merah catchment and diversion of SPS115 flows
- Network augmentation options such as the augmentation of the rising main between SPS108 and SMH36135, the augmentation of the rising main between SPS108 and SPS113 and gravity main augmentations

Two network augmentation options, Option 1 - Augmentation of the rising main between SPS108 and SMH36135, Option 2 - Augmentation of the rising main between SPS108 and SPS113, were taken forward for multi criteria and cost assessment.

Option 1 scored higher than Option 2 in the Technical and Environmental assessment but lower in the Social assessment, however Option 1 was selected as the preferred option from the multi criteria assessment. In the cost assessment, Option 1 had a lower overall capital cost but higher Net Present Cost than Option 2. Option 1 was considered to be the overall preferred option.

It is noted that the *Summary for: VA012 – SPS108 Rising Main Augmentation* (Logan City Council, no date) states:

> *"The original strategy for the augmentation of the SPS108 rising main focused on the upgrade of infrastructure along the existing corridor. This solution incurred a number of constructability issues and at the Design Opportunity and Risk (DOAR) workshop an alternative servicing strategy was identified involving an inter-catchment transfer to the Logan North catchment. As a result, a review of the servicing strategy, detailed planning and preliminary design for the SPS108 rising main augmentation was undertaken resulting in a revised solution.*
>
> *The SPS108 Rising Main Augmentation - Project Development report dated September 2013 outlines the revised servicing solution. This report is being prepared for Logan City Council adoption (anticipated Oct 2013).*
>
> *The Procedure for Capital Works Program Development states that Capital projects that have been re-assessed and an alternative strategic outcome or solution has been identified do not form part of this procedure. In these cases, the original project is to be cancelled and replaced with a new project.*
>
> *Capital Works project LW060 SPS108 Rising Main Augmentation will be cancelled and the findings of the project development report will be the basis of a new project to be incorporated into the Capital Works Program.*
>
> *It is anticipated that this new project will not be delivered until FY2014/15 with the detailed design component proceeding in FY2013/14."*

Three alternative servicing strategies were identified for consideration:

- Option 1: Parallel augmentation of the existing Church Road (SPS108) rising main
- Option 2: Diversion of SPS108 to the new Alfred Street Pump Station (SPS69) rising main via a proposed OD500 rising main

- Option 3: Diversion of Station Rd (SPS135) to the new Alfred Street Pump Station (SPS69) rising main via a proposed OD500 rising main (Logan Water Alliance, 24 September 2013)

The preferred option for the servicing of this section of the Logan East wastewater catchment is Option 2, due to the considerable cost savings (capital cost and NPV) over the other options, and the absence of any significant non-cost benefits for Options 1 and 3 to offset the higher costs. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. (Logan Water Alliance, 24 September 2013)

The full scope of works is as follows:

- 1,935 m of OD500 rising main and associated air and scour valves
- Interconnection works at Church Road pump station (SPS108)
- Installation of orifice plate
- Isolating of existing DN300 AC rising main (Logan Water Alliance, 24 September 2013)

SKM notes that the recommendations from the *SPS108 Rising Main Augmentation - Project Development Study* have not yet been adopted by Council.

B.5.2 Project delivery

The revised scope of the project is currently is the development phase. The *Wastewater Pump Station SPS108 Rising Main Augmentation – Project Development* (Logan Water Alliance, 24 September 2013) includes preliminary design.

The *Summary for: VA012 – SPS108 Rising Main Augmentation* (Logan City Council, no date) states:

> *"In August 2014, Logan City Council will relinquish its 5 year contract with the Logan Water Alliance partners (Tenix, Cardno and PB). As the delivery of this project has been deferred until FY2014/15 it will be delivered under a new arrangement which is yet to be determined. Future procurement and delivery process and policies will be implemented under this new arrangement.*
>
> *All works to be undertaken outside any new arrangement will be in accordance with the Logan City Council procurement and delivery processes and policies."*

The preliminary delivery schedule in the *Wastewater Pump Station SPS108 Rising Main Augmentation – Project Development* (Logan Water Alliance, 24 September 2013) indicates that tendering for the delivery of the project will occur in early 2014 with construction commencing mid-2014.

At the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 10 October 2013), Logan City Council stated that detailed design is to be completed in 2013-14 with construction likely to be completed in 2014-15. From the review of the delivery schedule, SKM concludes that the project will be completed and commissioned within the review period.

B.6 Standards of service

The *Summary for: VA012 – SPS108 Rising Main Augmentation* (Logan City Council, no date) states the *"Desired Standards of Service (DSS) used in this study are those adopted by Logan City Council (then Allconnex Water) in 2010 (Review of Desired Standards of Service - 2010, Sept 2010, LWA)."*

SKM considers that the standards used for this project are appropriate given they were the adopted standards at the time of design.

B.7 Project cost

The project budget for the currently preferred option (Option 2), which has not yet been adopted by Council, is outlined below.

Table B.3 : Project budget ($M) (Logan Water Alliance, 24 September 2013)

2013-14 ($M)	2014-15 ($M)	Total ($M)
1.86	3.27	**5.13**

The project budget for the project is outlined below. The *Wastewater Pump Station SPS108 Rising Main Augmentation – Project Development* (Logan Water Alliance, 24 September 2013) states that the cost estimates have been developed using a first principles approach to an accuracy of +/- 30%.

Table B.4 : Estimated project costs (Logan Water Alliance, 24 September 2013)

Description		**Cost**	**Actual Percentage**[†]
On Costs	Project Development	$181,731	5.5%
	Project Management	$436,155	13.2%
	Indirect Delivery Cost	$330,420	10.0%
	Sub-Total	**$948,306**	
Direct Delivery Cost	Project Establishment and Supervision	$318,561	
	Ancillaries incl. Set Out, Investigation, Valve Pits, and Reinstatement	$680,617	
	Rising Main (OD500) – Trenching	$1,016,998	
	Rising Main (OD500) – Trenchless	$1,288,026	
	Sub-Total	**$3,304,202**	
Risk and Opportunity		$254,424	7.7%
Project Fees		$608,436	14.3%
Logan City Council Costs		$18,173	0.5%
Total Capital Works Estimate		**$5,133,540**	

[†] On Costs, Risk and Opportunity and Logan City Council Costs as a percentage on Direct Delivery Cost; Project Fees as a percentage on Direct Delivery Cost and On Costs

According to the *Wastewater Pump Station SPS108 Rising Main Augmentation – Project Development* (Logan Water Alliance, 24 September 2013), the following overhead factors have been applied to the delivery cost estimate:

- Project development (5% on the direct cost)
- Project management (12% on the direct cost)
- Indirect delivery (10% on the direct cost)
- Risk and opportunity (5% on the direct cost)
- Project fee (13.5% on direct costs and overhead costs)
- Logan City Council cost (0.5% on the direct cost)

SKM notes that the overhead factors stated to be applied by Logan Water Alliance do not align with the actual percentages, as outlined in **Table B.4**.

SKM developed a cost estimate for components of the rising main aspects of the project based on rates from the Priority Infrastructure Plan Unit Rates Report and unit rates from recent projects. A comparison of SKM's estimated cost and Logan City Council's budget in presented below.

Table B.5 : Comparison of cost estimate

Aspect	Logan City Council ($)	SKM ($)	Difference	
			Value ($)	Percentage (%)
Rising main	2,305,024	2,353,869	-48,846	-2

As can be seen in **Table A.5**, SKM's estimate is within 2% Logan Water Alliance's cost estimate. SKM considers that the base costs for the construction works are appropriate.

Following the issue of SKM's draft report, Logan City Council provided a further cost breakdown for the project (LCC Response to SKM Price Monitoring Draft Report: Logan City Council 2013-15). This cost breakdown split costs into the following four categories: direct costs, on-costs, risk and opportunity and project fees.

SKM has reviewed the breakdown provided and agrees with the apportionment of costs with the following exception: SKM recommends the delivery costs be apportioned as follows; 55% to direct costs and 45% to on-costs (to be in line with other cost break downs reviewed). The estimated costs from Logan City Council and SKM's estimated costs showing this revised cost allocation are shown in **Table B.6**.

Table B.6 : Revised project costs (Logan City Council, December 2013)

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$3,726,543	100.0%	$3,646,662	100.0%
On Costs	$544,138	14.6%	$624,019	17.1%
Risk and Opportunity	$254,424	6.8%	$254,424	7.0%
Project Fees	$608,435	16.3%	$608,435	16.7%
Total	**$5,133,540**		**$5,133,540**	

In addition to the above costs are the detailed planning and preliminary design costs ($225,443), were not included in the previous budget costs. The addition of these costs and the impact on the on cost total is shown below.

Table B.7 : Revised project costs, including detailed planning costs

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$3,726,543	100.0%	$3,646,662	100.0%
On Costs	$769,581	20.7%	$849,462	23.3%
Risk and Opportunity	$254,424	6.8%	$254,424	7.0%
Project Fees	$608,435	16.3%	$608,435	16.7%
Total	**$5,358,983**		**$5,358,983**	

In addition, Logan City Council stated that they believe that the fee component should be included in the direct costs. SKM generally agrees with this approach, but only the project fee component for the contractor should be included in the direct cost. Therefore, in order to allow only the contractors profit margin to be included, SKM sought further information regarding the split of the project fee between the designers and the contractor.

In response to this query, Logan City Council stated that "*very little of the Project Fee shown relates to design or other services such as the environmental group*." A full example is provided for project UA007 - New Beith SRWP to Round Mountain Reservoir Water Conveyance (Appendix D).

Assuming that only 3% of the project fees are attributed to the designer, the revised calculation of on-costs is shown below.

Table B.8 : Revised project costs (Logan City Council, December 2013)

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
On Costs	$769,581	17.8%	$867,715	20.5%
Direct Delivery Cost	$4,334,978	100.0%	$4,236,844	100.0%
Risk and Opportunity	$254,424	5.9%	$254,424	6.0%
Total Capital Works Estimate	**$5,358,983**		**$5,358,983**	

The on costs on the project account for approximately 21% of the direct costs. This is slightly higher than both the recommended on costs from the Priority Infrastructure Plan: Unit Rates Report of 20% and SKM's recommended on costs (refer to Section 5.4). SKM understands that significant design (and re-design) work has been undertaken for this project.

In response to SKM's draft report, Logan City Council stated that "*while it is acknowledged that this project did a 'planning re-loop' which added to the planning costs ($141,802 extra) of the overall project, this 're-loop' recommended an alternate solution which saved $3.55M in NPV terms. We believe that if the project is assessed in an overall sense, that efficiency is demonstrated - given the substantial saving in capital cost as a result of the 'planning re-loop'*." (Logan City Council, December 2013).

SKM notes that in this case that the high design costs have resulted in a lower cost solution, and a better financial outcome for the project overall. As such, SKM does not recommend a further reduction of on-costs for this project.

B.8 Efficiency gains

The *Summary for: VA012 – SPS108 Rising Main Augmentation* (Logan City Council, no date) states:

> *"By utilising the spare capacity in the Alfred Street rising main in the short to medium term, the upgraded and rising main diversion to Loganholme WPCC (RA004: BE 47 WWPS Diversion to Loganholme WPCC) can be deferred."*

B.9 Implications for operating expenditure

No implications for operating expenditure have been identified for this project.

B.10 Policies and procedures

Table B.9 below identifies how the project has complied with the appropriate policies and procedures.

Table B.9 : SPS108 Rising Main Augmentation project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	By utilising the spare capacity in the Alfred Street rising main in the short to medium term, the upgraded and rising main diversion to Loganholme WPCC (RA004: BE 47 WWPS Diversion to Loganholme WPCC) can be deferred.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Yes	
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	No	The *Priority Infrastructure Plan Unit Rates Report* (Logan Water Alliance, 3 March 2011) outlines a methodology for cost estimation including recommended percentages for Owner's costs and contingencies. The values used for this project are higher than those proposed in this document.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	*Summary for: VA012 – SPS108 Rising Main Augmentation* (Logan City Council, no date)
An implementation strategy to be developed for each major project	No	No evidence of an implementation strategy has been provided. Logan City Council is undertaking a review of how projects in 2014-15 onwards will be delivered.
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	Yes	Logan City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements. However, in accordance with the *Memorandum – QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 60: Council Approval Process* (Logan City Council, 21 October 2013) SKM would expect to see: • Project Brief • Adoption Memorandum and Planning Report Summary • Evidence of Capital Works Program Reviews A project brief and Planning Report were provided for review.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	As the project involves the construction of a new rising main which connects into existing infrastructure, the project took into consideration of existing infrastructure.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

B.11 Prudency and efficiency

SKM considers the driver of growth appropriate for this project as it will increase conveyance capacity in the network supported by SPS108 to cater for projected growth. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM concludes that the project is prudent.

SKM considers that the project will be completed and commissioned within the review period. SKM considers that the standards used for this project are appropriate given they were the adopted standards at the time of design.

Whilst the on costs on the project are higher than SKM's recommended on costs, SKM recognises that the significant design (and re-design) work undertaken for this project has resulted in an lower cost solution, and a better financial outcome for the project overall. As such, SKM does not recommend a further reduction of on-costs for this project.

Overall, SKM finds the project to be prudent and efficient.

B.12 Assessment of reported expenditure

Table B.10 below identifies the revised capital expenditure for the SPS108 Rising Main Augmentation project.

Table B.10 : SPS108 Rising Main Augmentation project revised capital expenditure

Project	2013-2014 ($'000)	2014-2015 ($'000)	Total ($'000)
SPS108 Rising Main Augmentation	1,092	4,700	5,792
SKM proposed value	1,092	4,700	5,792
Variation (to QCA submitted value)	0	0	0

B.13 Extrapolation to other projects

Given the unique nature of this project and the fact that no systemic issue has been identified with the processes applied by Logan City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix C. S0014 - Crestmead Trunk Main Augmentation

C.1 Project description

The Crestmead Trunk Main Augmentation forms part of the Park Ridge servicing strategy which involves the construction of one section of a wastewater conveyance system on the northern boundary of Park Ridge. This project was initially scheduled for delivery in the 2015-16 financial year at an estimated cost of $7,000,000 however this date was brought forward into the 2014-15 financial year Capital Works Program. (Logan City Council, no date).

The project currently involves the construction of approximately 3 km of trunk main (DN1,200, DN1,050 and DN900) between Bumstead Road and Chambers Flat Road Pump Station via Billabong Drive, Crestmead. The construction of this section of the wastewater conveyance system will provide a network connection for the proposed Magnesium Drive (LW061), Green Road Conveyance 1 (LW063) and Green Road Conveyance 2 (LW062) projects. (Logan City Council, no date).

The strategy being considered for the Park Ridge area is outlined in the draft Northern Park Ridge Servicing Strategy Report. This strategy incorporates the deferral of the Crestmead, Magnesium Drive, Green Road Conveyance 1 and 2 projects until 2023. (Logan City Council, no date).

C.2 Proposed capital expenditure

Table C.1 shows the proposed cost of the Crestmead Trunk Main Augmentation project within the 2013/15 budget.

Table C.1 : Crestmead Trunk Main Augmentation project proposed capital expenditure ($'000)

Source	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Subsequent years ($'000)	Total ($'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	0	0	6,230	0	6,230
Crestmead Trunk Main Augmentation - Project Brief, Business Case, Prudency and Efficiency Test (Logan City Council, 15 July 2013)	0	0	6,230	770	7,000

SKM notes that there is a difference of $770,000 in the total expenditure for the project between the two sources. However the expenditure for this review period (2014-15) is identical.

C.3 Documentation reviewed

The key reference documents used for this review are:

- *Park Ridge Servicing Strategy Review* (Logan Water Alliance, 13 September 2013)
- *Summary for: Crestmead Trunk Main Augmentation* (Logan City Council, no date)
- *90-11-93 Northern Park Ridge Servicing Strategy Review (90-11-93)* (Logan City Council, 25 September 2013)
- *Crestmead Trunk Main Augmentation - Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, 15 July 2013)
- *Priority Infrastructure Plan: Wastewater Planning Report - Logan North* (Logan Water Alliance, August 2011)
- *Park Ridge Catchment Planning Report* (Logan Water Alliance, June 2011)

- *Review of Park Ridge Wastewater Conveyance Strategy* (Logan Water Alliance, November 2010)
- *Sewerage Extension to connect Park Ridge MPA to Existing Network – Detailed Planning Report* (Logan Water Alliance, March 2010)

C.4 Key drivers

The primary cost driver identified by Logan City Council for this project is growth.

Park Ridge is a key development area that is located within the Logan North wastewater catchment. It is located on the fringe of the existing wastewater network which has minimal spare capacity. As a result, new trunk mains are required to service the development area once development proceeds, particularly in the north western region.

There is minimal existing wastewater infrastructure within Park Ridge. There are two areas which are currently serviced, being an existing commercial precinct adjacent to Mount Lindesay Highway in the north western corner of the Major Development Area (MDA), and a retirement resort located in the east of the Park Ridge MDA.

The *Park Ridge Servicing Strategy Review* (Logan Water Alliance, 13 September 2013) reviewed population projections for the study area. The review indicates that there is a reduction in the predicted population forecast, as illustrated below.

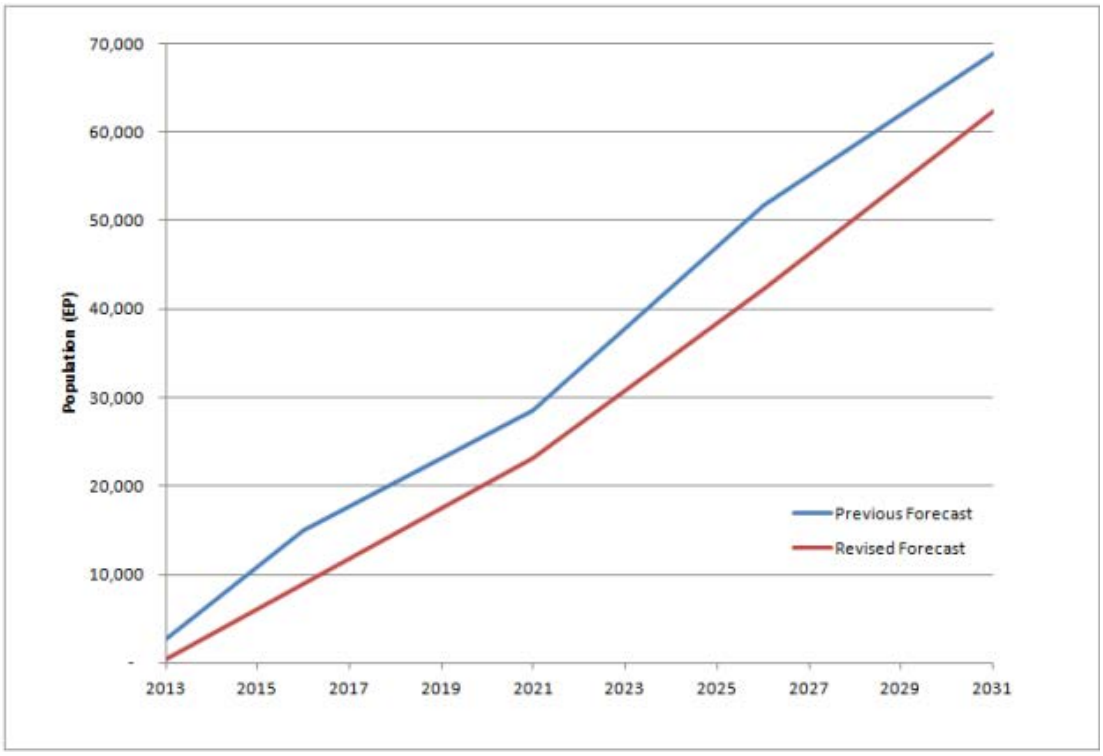


Figure 6-1 : Previous versus Revised Population Forecast (Logan Water Alliance, 13 September 2013)

The *Summary for: Crestmead Trunk Main Augmentation* (Logan City Council, no date) states:

> *"Park Ridge Servicing Strategy Review (90-11-93) project is forecast for completion in October 2013. This study involves a review of the servicing strategy for this region followed by detailed planning for the preferred option.*
>
> *The strategy review stage of the task has been completed. While the review demonstrated that the Northern Park Ridge conveyance main remains central to the overall servicing strategy, its construction*

can be deferred until at least 2023 due to the downward revision of forecast growth for Park Ridge and other contributing catchments. The reduction in growth rates means that the existing Logan North network can be utilised to convey flows from Northern Park Ridge for longer than previously anticipated.

Given that the Northern Park Ridge main is not required for approximately ten years, it is considered that any detailed planning for this main would be premature as significant changes can occur in this period that would completely change the servicing strategy and render any work undertaken redundant. Therefore, it was recommended that the detailed planning component of this study be delayed."

From its review of the above, SKM considers that, although growth would be the appropriate driver for this project in the fullness of time, given the revised timing of developments within the catchment, the decision to delay the implementation of the project is appropriate. Hence SKM is of the view that as there is currently no need for the project.

C.5 The scope of works

C.5.1 Solutions development

A number of options were considered in the Review of Park Ridge Wastewater Conveyance Strategy (Logan Water Alliance, November 2010). These options included a do nothing option as well as six alterative trunk and diversion main options.

The capital costs, operating costs, and Net Present Costs (NPCs) were estimated for each proposed option. A multi-criteria analysis (MCA) was undertaken to assess the non-cost elements of the six options. Each option was assessed on technical / operation risk, environmental, social and economic. (Logan Water Alliance, November 2010).

The preferred strategy from the Review of Park Ridge Wastewater Conveyance Strategy (Logan Water Alliance, November 2010) for servicing Park Ridge was the construction of the Southern Relief Sewer diversion and Bayliss Park diversion main. Logan Water Alliance recommended that additional investigations be completed during detailed planning to consider the implications of staging construction of the Alfred Street rising main with regards to cost and non-cost criteria identified in this study.

The preferred servicing strategy for the Northern Park Ridge wastewater catchment was further reviewed in the *Park Ridge Servicing Strategy Review* (Logan Water Alliance, 13 September 2013).

Four options were assessed:

- Option 1 – Existing System Duplication
- Option 2A – Construction of the Northern Park Ridge Conveyance System as currently planned
- Option 2B – Deferred construction of the Northern Park Ridge Conveyance System
- Option 3 – Park Ridge Wastewater Treatment Plant (Logan Water Alliance, 13 September 2013)

A comparison of the capital and operational net present costs was undertaken. In the MCA analysis, the criteria used to assess the merits of the options were Technical / Operational / Risk (40%), Environmental (30%) and Social (30%). From the net present cost and MCA analysis Option 2B was the preferred option. A sensitivity analysis was also undertaken taking into consideration: growth forecast; change in strategy for Greenbank and North MacLean; electricity cost; discount rates; and effluent nutrient polishing / Loganholme nutrient release limits. (Logan Water Alliance, 13 September 2013).

The recommendations from the review were:

- Adopt Option 2B (deferral of Northern Park Ridge Conveyance System) as the preferred servicing strategy
- Commence detailed planning for Regents Park Gravity main augmentation and short term connections between Park Ridge and gravity network

- Defer detailed planning for Northern Park Ridge Conveyance System
- Identify preferred location for Park Ridge to Loganholme pump station and commence land acquisition process
- Assess opportunities for providing lower nutrient effluent from Loganholme WWTP (Logan Water Alliance, 13 September 2013)

The *Park Ridge Servicing Strategy Review* (Logan Water Alliance, 13 September 2013) indicates that the project is not currently needed given revised population projections and that it should be replaced by a new project to be completed in 2023, as outlined below.

Table C.2 : Capital Works Program Implications

Aspect	Current Situation	Proposed Situation
Project Name	Crestmead Trunk Gravity Main Augmentation	Crestmead Trunk Gravity Main Augmentation
Project Description	This involves the construction of a section of the Park Ridge Northern Conveyance system, which includes the augmentation of the existing Crestmead Trunk Gravity Main. The scope includes: • 220 m of DN900 gravity main • 845 m of DN1050 gravity main • 1,213 m of DN1200 gravity main	This involves the construction of the last section of the Park Ridge Northern Conveyance system, which includes the augmentation of the existing Crestmead Trunk Gravity Main. The scope includes: • 887 m of DN600 gravity main • 81 m of DN750 gravity main • 322 m of DN825 gravity main • 457 m of DN900 gravity main • 1,353 m of DN1050 gravity main • 666 m of DN1200 gravity main
Capital Cost	$6,690,097	$12,625,892
Year Required	2014/15	2023

SKM notes that the *Park Ridge Servicing Strategy Review* (Logan Water Alliance, 13 September 2013) has not yet been finalised and that the recommendations have not been adopted by council.

SKM is satisfied that an appropriate range of options were selected and adequately reviewed. As such, SKM agrees with the draft recommendation to delay the project implementation. SKM considers that the options should be reassessed to ensure that an appropriate scope of work is determined prior to the delivery of the project in 2023.

C.5.2 Project delivery

As discussed in **Section B.4**, Logan City Council is currently undertaking a review of the Northern Park Ridge Servicing Strategy. The outcome of the study is likely to affect the timing of the completion of this project. It is anticipated that the project will be deferred until 2023.

The *Summary for: Crestmead Trunk Main Augmentation* (Logan City Council, no date) states that:

> *"The delivery of this project is anticipated to be deferred until 2023, at which time the procurement and delivery process will be in accordance with Logan City Council's standards, procedures and guidelines implemented at that time."*

C.6 Standards of service

The Desired Standards of Service (DSS) used by the Logan Water Alliance were those adopted by Logan City Council (then Allconnex Water) in 2010.

The key parameters used in the options assessment included:

- ADWF = 200 L/EP/day
- PWWF = 1,300 L/EP/day
- PWWF (Industrial) = 1,000 L/EP/day
- Rising main Velocity $_{max}$ = 2.5 m/s
- Rising main Velocity $_{min}$ = 0.9 m/s

SKM considers that the standards used for this project are appropriate given that they were the adopted standards at the time of design.

C.7 Project cost

The current project budget is estimated at $7 M. This estimated was developed for the master planning using unit rates (in 2010 dollars) with an accuracy of ± 50%. (Logan City Council, 15 July 2013).

The *Summary for: Crestmead Trunk Main Augmentation* (Logan City Council, no date) states that:

> *"Further refinement is anticipated and subject to the outcomes of the Park Ridge Servicing Strategy Review report.*
>
> *A detailed cost breakdown will be prepared as part of a TOC anticipated around 2022-2023.*
>
> *An independent cost review will be undertaken during the TOC development for this project anticipated around 2022-2023."*

As the project is likely to be deferred by up to ten years, SKM recommends the removal of the project's proposed expenditure from the current review period.

C.8 Efficiency gains

The *Summary for: Crestmead Trunk Main Augmentation* (Logan City Council, no date) states that:

> *"The Crestmead Trunk Main Augmentation forms part of the Park Ridge servicing strategy which also includes the following projects;*
>
> - *LW063: Green Road, Park Ridge WWPS and Conveyance 1 (FY2015/16)*
> - *LW062: Green Road, Heritage Park WWPS and Conveyance 2 (FY2015/16)*
> - *LW061: Magnesium Drive, Park Ridge (FY2015/16)*
> - *Park Ridge to Loganholme WWTP Rising Main (FY2022/23)*
>
> *Based on the preliminary findings of the Park Ridge Servicing Strategy Review Sept 2013, LWA (forecast completion Oct 2013), it is proposed to delivery the above stated projects by 2023. Opportunity exists to package several of these projects."*

C.9 Implications for operating expenditure

No implications for operating expenditure have been identified.

C.10 Policies and procedures

Table C.3 below identifies how the project has complied with the appropriate policies and procedures.

Table C.3 : Crestmead Trunk Main Augmentation project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	The project is part of the wider Park Ridge Servicing Strategy which involves the construction of one section of the wastewater conveyance system on the northern boundary of Park Ridge.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Not applicable	The review of population projections has resulted in the project being deferred.
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	Not applicable	Logan City Council's *Water Infrastructure - Procedures for Capital Works Program Development* (Logan City Council, 2 August 2012) does not set out a standardised approach to cost estimation. The *Priority Infrastructure Plan Unit Rates Report* (Logan Water Alliance, 3 March 2011) outlines a methodology for cost estimation including recommended percentages for Owner's costs and contingencies. SKM has not assessed these as the project is not proceeding.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	*Summary for: Crestmead Trunk Main Augmentation* (Logan City Council, no date)
An implementation strategy to be developed for each major project	Not applicable	No evidence of an implementation strategy has been provided however as the project is anticipated to be delayed until 2023 it is not yet expected to be developed.
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	No	Logan City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements. In accordance with the *Memorandum – QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 60: Council Approval Process* (Logan City Council, 21 October 2013) SKM would expect to see: • Project Brief • Adoption Memorandum and Planning Report Summary • Evidence of Capital Works Program Reviews No Adoption Memorandum, Planning Report Summary or Evidence of Capital Works Program Reviews were provided for this project.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	The project involves the construction of a new connection main, the new pipeline took into consideration existing, adjacent infrastructure.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

C.11 Prudency and efficiency

SKM considers that, although growth will ultimately be the appropriate driver for this project, given the revised timing of developments within the catchment, the project is not currently needed. As such the proposed delay in the implementation of the project is appropriate.

As the project is anticipated to be deferred until 2023, SKM recommends the removal of the project expenditure from the current review period.

C.12 Assessment of reported expenditure

Table C.4 below identifies the revised capital expenditure for the Crestmead Trunk Main Augmentation project.

Table C.4 : Crestmead Trunk Main Augmentation project revised capital expenditure

Project	2013-2014 ($'000)	2014-2015 ($'000)	Subsequent years ($'000)	Total ($'000)
Crestmead Trunk Main Augmentation	0	6,230	0	6,230
SKM proposed value	0	0	0	0
Variation (to QCA submitted value)	0	-6,230	0	-6,230

C.13 Extrapolation to other projects

Given the unique nature of this project and the fact that no systemic issue has been identified with the processes applied by Logan City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

SKM understands that all project scheduled for delivery in the 2013-15 period have been reviewed based on the revised population growth projections and where relevant projects have been deferred. SKM recommends that Logan City Council identifies all other similar projects that have been deferred due to lack of growth so that these costs can be removed from the budget submitted to the Authority.

Appendix D. UA007 - New Beith SRWP to Round Mountain Reservoir Water Conveyance

D.1 Project description

Round Mountain reservoir provides storage to service growth within the Greater Flagstone Urban Development Area (UDA) and is able to provide a complimentary supply into the clear water tanks at the South Maclean Water Treatment Plant (WTP). (Logan Water Alliance, February 2012).

To increase the supply capacity from the SRWP into the Round Mountain Reservoir, the construction of a new dedicated trunk main between the SRWP's Beaudesert (New Beith) offtake and the inlet valve chamber of the New Beith Road connection main is required. (Logan Water Alliance, February 2012).

D.2 Proposed capital expenditure

Table D.1 shows the proposed cost of the New Beith SRWP to the Round Mountain Reservoir Water Conveyance project within the 2013-15 budget.

Table D.1 : New Beith SRWP to the Round Mountain Reservoir Water Conveyance project proposed capital expenditure ($'000)

Source	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Subsequent years ($'000)	Total ($'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	411	0	7,421	0	7,831
20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15	0	0	7,421	0	7,421

The expenditure provided in the two documents is identical for the 2013-15 review period.

D.3 Documentation reviewed

The key reference documents used for this review are:

- *Summary for: UA007 New Beith SRWP to Round Mountain Reservoir Water Conveyance* (Logan City Council, no date)
- *Project Change Request Register* (Logan City Council, no date)
- *Change Request* (Logan City Council, 26 August 2013)
- *Design Task Report LWA Job No - 7704: New Beith Road Trunk Main* (Logan Water Alliance, July 2013)
- *Paper for COOO Approval – Logan Water Alliance Design Task 7704: Detailed Design and technical Specification for New Beith Road Trunk Main* (Allconnex Water, March 2012)
- *New Beith SRWP to the Round Mountain Reservoir Water Conveyance - Prudency and Efficiency Test* (Allconnex Water, 22 February 2012)
- *New Beith Road Trunk Main Preliminary Design* (Logan Water Alliance, February 2012)
- *New Beith SRWP to the Round Mountain Reservoir Water Conveyance - Project Brief, Version 2* (Allconnex Water, 13 January 2012)
- *Round Mountain Reservoir Supply Zone Planning* (Logan Water Alliance, October 2011)
- *Priority Infrastructure Plan: Water Supply Planning Report - Logan South* (Logan Water Alliance, August 2011)

- *Logan South Strategic Water Supply Planning Study* (Logan Water Alliance, May 2011)

D.4 Key drivers

The primary cost driver identified by Logan City Council for this project is growth. The purpose of this trunk main is to increase the capacity of the Logan South network to fill the Round Mountain Reservoir from the SRWP.

Currently the Round Mountain Reservoir is supplied by the Teviot Downs trunk main (BL7 pipeline, DN300) which can supply a maximum of 6 ML/d. The *Design Task Report LWA Job No - 7704: New Beith Road Trunk Main* (Logan Water Alliance, July 2013) identifies system deficiency as a key driver and states:

> *"The existing supply arrangement utilises the BL7 pipeline (DN300) as the primary supply pipeline from the SRWP. The small diameter of the BL7 pipeline acts as a supply constraint to the Round Mountain reservoir."*

The *Design Task Report LWA Job No - 7704: New Beith Road Trunk Main* (Logan Water Alliance, July 2013) also identifies growth as a key driver and states:

> *"The Round Mountain reservoir will provide supply to the Greater Flagstone UDA. The Infrastructure Demand Model (IDM) developed as part of the PIP exercise, projects over 155,000 EPs required to be serviced in the Flagstone and Round Mountain Reservoir water supply zones".*

At the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 2013), Logan City Council stated that due to issues with the existing pipeline approximately 3,000 customers were within hours of losing water supply. SKM understands that this was due to hydraulic constraints in the network upstream of the pump station located at the South Maclean Water Treatment Plant. Hydraulic analysis undertaken by Logan Water Alliance indicated that the hydraulic constraints in the upstream network could be eliminated by constructing the New Beith SRWP to Round Mountain Reservoir Water Conveyance trunk main.

Logan City Council have provided analysis of daily flow data indicating that demands within Logan South exceeded the capacity of the existing trunk supply network for 40 days in 2012/13.

In terms of a regional approach, the Queensland Water Commission (QWC) investigated the opportunity to utilise the Logan South network (including Round Mountain reservoir and Seqwater's South Maclean WTP) to supplement supply to the Scenic Rim Regional Council with water from the SRWP. SKM understands that the QWC finalised the "Water Supply to the Scenic Rim: Option Assessment - Final Report and Recommendation" in May 2012, acknowledging in Section 6.0 of the final report that "the preferred entity for development of these solutions will be Seqwater."

Logan Water Alliance, on behalf of the Logan City Council, has been undertaking collaborative planning studies to assist Seqwater with the undertaking of this project.

SKM understands that Seqwater are currently undertaking a business case to determine the most appropriate solution to supply Scenic Rim Regional Council, with an aim to finalise the design of the recommended solution in 2014/15, with construction scheduled for 2015/16.

SKM understands that based on the findings of the QWC report, two options are being considered:

- The upgrade of the Helen St Water Treatment Plant
- Connecting Scenic Rim Regional Council to the South East Queensland Water Grid through a combination of utilising existing bulk and trunk assets (owned by Logan City Council and Seqwater) and new assets to be constructed by Seqwater.

The Logan Water Alliance, on behalf of Logan City Council, has assisted Seqwater in the preparation of the business case by undertaking a *Revision of Logan South Water Supply Servicing Strategy (90-12-20),* scheduled for completion in December 2013, which identifies the capital works required to implement the Water Grid option.

Whilst SKM has not sighted a copy of the *Revision of Logan South Water Supply Servicing Strategy (90-12-20),* Logan City Council stated that this document:

> *"reviews the overall supply servicing strategy for the Logan South network considering revised population growth rates from Logan City Council Water Development Services team.*
>
> *The study's objective was "to review and revise the water supply servicing strategy for the Logan South water supply network considering the latest information regarding changes in bulk supply sources, grid operations and growth projections.*
>
> *The selection of the preferred servicing strategy was primarily based on the lowest whole of life cost, with considerations for operational flexibility and solution feasibility.*
>
> *The study identified significant deferral of trunk main augmentations by supplying the Yarrabilba PDA with bulk water from the SRWP via Round Mountain reservoir. The revised strategy deferred the need to construct the Chambers Flat trunk main, a $29 million trunk main connecting the Southern Regional Water Pipeline to Travis Road reservoir, from 2016 to 2021. This strategy requires the availability of the New Beith trunk main by 2015/16.*
>
> *The revised timing of the New Beith trunk main is supported by ongoing growth within the Yarrabilba PDA, Which as of November 2013, has sold over 500 lots with approximately 300 houses currently connected to water services. This aligns with the revised growth projections used for infrastructure planning in the Revision of Logan South Water Supply Servicing Strategy."*

Following responses to SKM's draft report, SKM understands that the population projections for the Logan South water supply connection were recently reviewed as part of *the Revision of Logan South Water Supply Servicing Strategy (90-12-20)*. The revised population projections utilised current network flow data, short term development projections from the Water Development Services Team and changes in development and planning associated with the Greater Flagstone and Yarrabilba PDA.

On the basis of the supporting evidence for the project on a local and regional level, SKM concludes that the project is prudent.

D.5 The scope of works

D.5.1 Solutions development

A number of options were considered in the Round Mountain Reservoir Supply Zone Planning report (Logan Water Alliance, October 2011). These options included a number of short term and longer term options.

The outcomes of the options assessment indicated that unless Wyaralong WTP is constructed prior to the existing network reaching capacity (ie between 2013 and 2018), New Beith Road Trunk Main is required. (Logan Water Alliance, October 2011).

The *New Beith Road Trunk Main Preliminary Design* (Logan Water Alliance, February 2012) report considers two connections points and three pipeline route alignment options, being:

- Connections point options:
  - Southern Regional Water Pipeline – Beaudesert Offtake (New Beith)
  - Round Mountain DN600 Pipeline – Butterfly Valve Chamber
- Pipeline route alignment options:
  - Option A: New Beith Road (approximately 3,860 m of pipeline)
  - Option B: Lyon Drive (approximately 4,100 m of pipeline)
  - Option C: Dungaree Drive (approximately 5,100 m of pipeline)

A technical analysis assessment (including pipe material and system hydraulics), an environmental assessment and a community and stakeholder assessment were undertaken for each option. Option A was the preferred option from the non-cost assessment. Assessment of estimated capital costs for the three alignment option was undertaken. Option A was the lowest cost option. The preferred option was identified as Option A as it ranks highest on both cost and non-cost criteria. (Logan Water Alliance, February 2012).

The project involves the construction of a new DN600 trunk main from the SRWP at the Beaudesert offtake (DN300 offtake) in Pub Lane over a distance of approximately 3.6 km to the existing butterfly valve pit located in the unformed section of New Beith Road. (Logan Water Alliance, July 2013).

SKM is satisfied that an appropriate range of options were selected and adequately reviewed, that the most efficient option has been selected and that the scope of works is appropriate to meet the project need.

D.5.2 Project delivery

The *Summary for: UA007 New Beith SRWP to Round Mountain Reservoir Water Conveyance* (Logan City Council, no date) identifies that the Detailed Design for the project has been finalised however the delivery of the project has been postponed until 2014-15. Given that the LWA is scheduled to wind up in August 2014, the Summary document further notes that:

> *"All works to be undertaken outside of an Alliance will be in accordance with the Logan City Council procurement and delivery processes and policies."*

SKM notes that at the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 2013), Logan City Council stated the methodology by which future projects will be delivered is still being decided. As such delivery may be by an alliance or another delivery mechanism.

The proposed revised schedule in the *Change Request* (Logan City Council, 26 August 2013) indicates that the project will be delivered in 2014-15 to 2015-16 which agrees with '5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template' which indicates the year of commissioning as June 2016.

At the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 2013), Logan City Council indicated that given that the project has an approximate 20 week delivery program and the detailed design has been completed, the delivery and commissioning of the project could be completed well within the 2014-15 financial year.

SKM considers that if the new deliver process is finalised prior to the 2013-14 financial year the project should be able to be delivered within the 2014-15 financial year.

D.6 Standards of service

The Desired Standards of Service (DSS) used by the Logan Water Alliance were those adopted by Logan City Council (then Allconnex Water) in 2010 (Review of Desired Standards of Service - 2010, Sept 2010, LWA).

The key parameters used in the options assessment include:

- Flow equation: Hazen Williams
- Maximum velocity: 2.5 m/s
- Typical design velocity: 1.0 to 1.5 m/s
- Main capacity: Water trunk mains feeding ground level reservoir : MDMM for a gravity supply and MDMM over 20 hours for a pumped supply (Logan Water Alliance, May 2011)

From SKM's review of the above and comparison with industry standards, SKM considers that the standards used for this project are appropriate.

D.7 Project cost

A *Project Budget Estimate* was prepared by the Logan Water Alliance estimator as part of the Design Task Report, as outlined below. SKM notes that the $7.83 M included in the template submission to the Authority does not align with the costs in the Design Task Report ($8.3 M) or the Project Change Request Register ($8.77 M). Unless further clarification is provided SKM recommends that the value in the Information Template submission to the Authority be accepted.

Table D.2 : Project Budget Estimate (Logan Water Alliance, July 2013)

Item	Description	Total ($)	% of Total Cost	% of Direct Cost
1	Design Development and PM cost	609,200	7.3	10
2	Indirect Delivery Cost	519,934	6.3	9
3	Pipeline Construction	5,877,693	70.8	100
4	Risk and Opportunity + Contingency	260,000	3.1	4
5	Project Fee (Tenix, Parsons Brinckerhof & Cardno)	837,245	10.1	14
6	Provision for Land Acquisition Cost	200,000	2.4	3
Total		**8,304,072**	**100**	

SKM developed a cost estimate for a portion of the pipeline construction component based on unit rates and rates from recent projects.

Table D.3 : Budget cost estimate comparison

Component	Logan Water Alliance Budget Estimate ($)	SKM Budget Estimate ($)	Difference	
Supply and Installation of Pipeline and Fittings	4,075,738	3,302,797	-$772,941	-19%

SKM estimate is approximately 19% lower than the budget estimate produced by the Logan Water Alliance. SKM considers that the direct construction project cost is appropriate as they are within 20% of Logan Water Alliances cost estimate and it is understood that an independent cost review will be undertaken during the Target Out-turn Cost (TOC) development (Logan City Council, no date) and may also be market tested depending on the procurement methodology adopted.

Following the issue of SKM's draft report, Logan City Council provided a further cost breakdown for the project (LCC Response to SKM Price Monitoring Draft Report: Logan City Council 2013-15). This cost breakdown split costs into the following four categories: direct costs, on-costs, risk and opportunity and project fees.

SKM has reviewed the breakdown provided and agrees with the apportionment of costs with the following exceptions: the transfer of costs associated with the Design Group Project Management and the Environmental Group to on-costs. The estimated costs from Logan City Council and SKM's estimated costs showing this revised cost allocation are shown in **Table D.4.**

Table D.4 : Revised project costs (Source: Logan City Council, December 2013)

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$6,888,835	100.0%	$6,750,835	100.0%
On Costs	$317,992	4.6%	$455,992	6.8%

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Risk and Opportunity	$260,000	3.8%	$260,000	3.9%
Project Fees	$837,245	12.2%	$837,245	12.4%
Total	**$8,304,072**		**$8,304,072**	

In addition to the above costs are the detailed planning and detailed design costs ($526,886), were not included in the previous budget costs. The addition of these costs and the impact on the on cost total is shown below.

Table D.5 : Revised project costs , including detailed planning and detailed design costs

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$6,888,835	100.0%	$6,750,835	100.0%
On Costs	$844,878	12.3%	$982,878	14.6%
Risk and Opportunity	$260,000	3.8%	$260,000	3.9%
Project Fees	$837,245	12.2%	$837,245	12.4%
Total	**$8,830,958**		**$8,830,958**	

In addition, Logan City Council stated that they believe that the fee component should be included in the direct costs. SKM generally agrees with this approach, but only the project fee component for the contractor should be included in the direct cost. Therefore, in order to allow only the contractors profit margin to be included, SKM sought further information regarding the split of the project fee between the designers and the contractor.

In response to this query, Logan City Council stated that "*very little of the Project Fee shown relates to design or other services such as the environmental group*." The example for project UA007 - New Beith SRWP to Round Mountain Reservoir Water Conveyance, was provided as follows:

- The fee associated with detailed planning is already included in the "on-cost" amount as part of the $59,912 cost.
- The fee associated with detailed design is already included in the "on-cost" amount as part of the $466,974 cost.
- The vast majority of the $837,245 project fee shown at item f is therefore construction related.
- As an approximation, 97% construction and 3% design and other services.

Assuming that only 3% of the project fees are attributed to the designer, the revised calculation of on-costs is shown below.

Table D.6 : Revised project costs (Logan City Council, December 2013)

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
On Costs	$844,878	10.9%	$1,007,995	13.3%
Direct Delivery Cost	$7,726,080	100.0%	$7,562,963	100.0%
Risk and Opportunity	$260,000	3.4%	$260,000	3.4%
Total	**$8,830,958**		**$8,830,958**	

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Less detailed planning and detailed design costs	$526,886		$526,886	
Total	**$8,304,072**		**$8,304,072**	

The on costs on the project account for approximately 13% of the direct costs. SKM considers the on-costs to be reasonable.

D.8 Efficiency gains

No efficiency gains have been identified for this project.

D.9 Implications for operating expenditure

The project represents a negligible impact on Logan City Council's operating expenditure, as the SRWP provides sufficient hydraulic head to supply into Round Mountain reservoir without additional pumping / energy costs. The implications of additional maintenance costs have not been considered. (Logan City Council, no date)

D.10 Policies and procedures

Table D.7 below identifies how the project has complied with the appropriate policies and procedures.

Table D.7 : New Beith SRWP to Round Mountain Reservoir Water Conveyance project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	The objective of the project is to provide a dedicated trunk main between the SRWP off-take and Round Mountain reservoir as a source of supply for the predicted population growth in the Logan South Catchment. This will service the reservoir until the proposed Wyaralong WTP and Cedar Grove Connector is constructed.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	No	
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	No	The *Priority Infrastructure Plan Unit Rates Report* (Logan Water Alliance, 3 March 2011) outlines a methodology for cost estimation including recommended percentages for Owner's costs and contingencies. The values used for this project are higher than those proposed in this document.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	*Summary for: UA007 New Beith SRWP to Round Mountain Reservoir Water Conveyance* (Logan City Council, no date)
An implementation strategy to be developed for each major project	No	No evidence of a documented implementation strategy has been provided

Initiative	Achievement (Yes/No/Partial)	Comment
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	Yes	Logan City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements. In accordance with the *Memorandum – QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 60: Council Approval Process* (Logan City Council, 21 October 2013) SKM would expect to see: • Project Brief • Adoption Memorandum and Planning Report Summary • Evidence of Capital Works Program Reviews All of these documents (or similar) were provided for this project.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	As the project involves the construction of a new main from the SRWP offtake to the existing butterfly valve pit at the start of the Round Mountain pipeline, the new pipeline took into consideration of existing infrastructure.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

D.11 Prudency and efficiency

The purpose of this trunk main is to increase the capacity of the Logan South network to fill the Round Mountain Reservoir from the SRWP. On the basis of the supporting evidence for the need for the project based on growth on a local and regional level, SKM concludes that the project is prudent.

SKM notes that the $7.83 M included in the template submission to the Authority does not align with the costs in the Design Task Report ($8.3 M) or the Project Change Request Register ($8.77 M). Unless further clarification is provided SKM recommends that the value in the Information Template submission to the Authority be accepted.

Overall, SKM finds the project to be prudent and efficient.

D.12 Assessment of reported expenditure

Table D.8 below identifies the revised capital expenditure for New Beith SRWP to Round Mountain Reservoir Water Conveyance project.

Table D.8 : New Beith SRWP to Round Mountain Reservoir Water Conveyance project revised capital expenditure

Project	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Subsequent years ($'000)	Total ($'000)
New Beith SRWP to Round Mountain Reservoir Water Conveyance project	411	0	7,421	0	7,831
SKM proposed value	411	0	7,421	0	7,831
Variation (to QCA submitted value)	0	0	0	0	0

D.13 Extrapolation to other projects

Given the unique nature of this project and the fact that no systemic issue has been identified with the processes applied by Logan City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix E. XA006 - Logan East PLMP and Fire Flow Project

E.1 Project description

The objective of this project is to address the monitoring and pressure management control systems failures across Logan East which has resulted in excessive pressures at various locations and below standard fire flow in other areas. This project will establish 12 district metered areas (DMAs) to provide improved services and compliance with Logan City Council's Desired Standards of Service (DSS).

The project includes approximately 1.6 km of DMA water main augmentations and 0.7 km of fire flow augmentations. The project also includes new telemetry, meters, and pressure reducing valve (PRV) controls at 15 DMA inlet structures across Logan East.

E.2 Proposed capital expenditure

Table E.1 shows the proposed cost of the Logan East PLMP and Fire Flow Project within the 2013-15 budget.

Table E.1 : Logan East PLMP and Fire Flow proposed capital expenditure ($'000)

Source	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Total ($'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	0	1,142	2,810	**3,952**
20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15	0	1,142	2,810	**3,952**
Logan East PLMP and Fire Flow Project - Project Brief, Business Case, Prudency and Efficiency Test (Logan City Council, April 2013)	110	1,000	2,800	**3,910**
Logan East Water Supply DMA Management and Fire Flow Augmentations Detailed Planning (Logan Water Alliance, September 2013)	0	4,483		**4,483**

The total project costs vary depending on the source of the information provided to SKM. SKM understands from advice from Logan City Council that the template submitted to the Authority and the *20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15* spread sheet represents the latest and hence most accurate project costs.

E.3 Documentation reviewed

The key reference documents used for this review are:

- *ALG Paper 391: Logan East Water Supply DMA Management and Fire Flow Augmentations - Approval of Works Package Definition Statement and TOC Development Budget* (Logan Water Alliance, September 2013)
- *Logan East Water Supply DMA Management and Fire Flow Augmentations Detailed Planning* (Logan Water Alliance, September 2013)
- *Logan East PLMP and Fire Flow Project - Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, April 2013)
- *Logan East PLMP and Fire Flow Scoping Study* (Logan Water Alliance, May 2012)
- *Priority Infrastructure Plan_ Water Supply Planning Report - Logan East* (Logan Water Alliance, June 2011)
- *Summary for: XA006 Logan East PLMP and Fire Flow Project* (Logan City Council, no date)

E.4 Key drivers

The primary cost driver identified by Logan City Council for this project is improvement with compliance identified as a secondary driver.

The *Logan East Water Supply DMA Management and Fire Flow Augmentations Detailed Planning* report (Logan Water Alliance, September 2013) states:

> *"There are three principal drivers for this project.*
>
> - *Improved levels of service*
> - *Increased fire flow protection to customers*
> - *Improved operational performance through a reduction in bursts and leaks*
>
> *Parts of Logan East experience pressures up to 97 m. This is 17 m over the desired maximum operating pressure and 42 m above the target operating pressure. Pressures at this level result in higher incidences of pipe burst, greater potential for leakage and a higher incidence of customer complaints.*
>
> *Analysis has also shown that there are almost 100 hydrants that do not comply with the desired fire flow requirements. Insufficient fire flow poses risks to both property and human life as it could restrict the ability of Queensland Fire and Rescue Services (QFRS) to extinguish a house fire in these areas.*"

The maximum service pressure of 80 m and target service pressure of 55 m utilised by the Logan Water Alliance in the detailed planning aligns with the maximum service pressure and target service pressure specified in the *SEQ Water Supply and Sewerage Design and Construction Code* (Gold Coast City Council, Logan City Council, Queensland Urban Utilities, Redland City Council and Unitywater, July 2013).

The *Detailed Planning* report (Logan Water Alliance, September 2013) further states:

> *"In 2005, Gold Coast Water implemented a pressure and leakage management program (PLMP) in parts of Logan East with 7 DMAs covering about 50% of the water supply district. The existing DMAs have not been maintained for a long time. The maintenance of all DMA flow monitoring and pressure management installations in Logan East has been neglected since the area was transferred from Gold Coast in 2008. Gold Coast Water did not maintain the installations under the service level agreement with Logan City Council and for all practical purposes the installations were abandoned and the historical performance data is lost.*
>
> *The water supply reticulation in Logan East is experiencing a large number of bursts as a result of the high pressures in the network. There is also no flow meter data to conduct a water balance so the level of leakage in the Logan East network is unknown."*

The *Logan East PLMP and Fire Flow Project - Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, April 2013) states:

> *The current Palmer monitoring and pressure management control system originally implemented by Gold Coast City Council has systematically failed at all sites in Logan East. Due to the ongoing repairs to this system it was determined at a more viable option would be required into the future.*

SKM considers that improvement and compliance are the appropriate drivers for the project given that the existing flow monitoring system was not maintained previously and is no longer operational. Also sections of the network are not meeting fire flow requirements specified in the under the *SEQ Water Supply and Sewerage Design and Construction Code*.

E.5 The scope of works

E.5.1 Solutions development

Although not clearly documented, SKM considers that a do nothing option was considered by Logan City Council and discounted as do nothing still results in non-compliance with fire flow requirements.

The following procedure was undertaken by the Logan Water Alliance to develop the project solution:

- The information available on the existing network and DMAs was reviewed. This includes GIS and as-constructed drawings, dial-before-you-dig (DBYD) information and documents handed over by Gold Coast Water
- Candidate DMAs were developed for the water supply district and the performance was tested against the Desired Standards of Service (DSS) requirements using a hydraulic model. Potential DMA inlet locations and pipeline augmentations were identified.
- A Planning Opportunity and Risk (POAR) workshop was conducted with key stakeholders to discuss and agree on the planned works
- A Detailed Planning Report was prepared to document the investigation undertaken, proposed works and cost estimate to implement DMAs in the Logan East water supply district (Logan Water Alliance, September 2013)

The scope of the work required includes:

- 11 PRVs and control panels
- 18 electromagnetic flow meters
- 17 new or modified pits
- 12 critical point loggers
- 15 telemetry outstations
- 420 m of power conduits
- 1,595 m of DMA pipeline augmentations
- 710 m of fire flow augmentations
- 1,720 m of network reliability improvements in the Beenleigh CBD (Logan Water Alliance, September 2013)

SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described.

E.5.2 Project delivery

The *Summary for: XA006 Logan East PLMP and Fire Flow Project* (Logan City Council, no date) states:

> *"The procurement methodology for the Works Package will be determined during the TOC Development and will ensure best value for money and minimise commercial risks.*
>
> *The procurement of materials, equipment and technologies will be undertaken in accordance with the Logan Water Alliance Procurement Management Plan and the Logan City Council procurement policy. Where considered appropriate, procurement activities will include consultation with Logan City Council procurement team."*

At the *Logan Price Monitoring Review Meeting* (Logan City Council, Logan Price Monitoring Review Meeting, 10 October 2013), Logan City Council stated the planning has been adopted and the project is moving into detailed design and Target Outturn Cost (TOC) development. The design requirements are being determined on a site

by sites basis and are expected to be completed by the end of 2013. The detailed design is being delivered by the LWA. The construction aspect of the project will be delivered by a contractor, who will be awarded the contract through a tender process. All construction work is anticipated to be completed within the 2013-14 financial year.

Based on the above, SKM considers that the project will be completed and commissioned within the review period.

E.6 Standards of service

The *Summary for: XA006 Logan East PLMP and Fire Flow Project* (Logan City Council, no date) states the *"Desired Standards of Service (DSS) used in this study are those adopted by Logan City Council (then Allconnex Water) in 2010 (Review of Desired Standards of Service - 2010, Sept 2010, LWA)."*

SKM reviewed the water network planning parameters used for the project against those in the *SEQ Water Supply and Sewerage Design and Construction Code* (Gold Coast City Council, Logan City Council, Queensland Urban Utilities, Redland City Council and Unitywater, July 2013).

Table E.2 : Comparison of Water Network Planning Parameters

Parameter		Logan City Council DSS	SEQ D&C Code (Logan)
System pressure		• 12 m minimum at property boundary	• 12 m min at the main at the hydrant
Fire flow	Residential	• 15 L/s for 2 hours	• 15 L/ for 2 hours
	Commercial & Industrial	• 30 L/s for 4 hours	• 30 L/s for 4 hours or 15 L/s for 2 hours in small community/rural
Minimum operating pressure at MH		• On demand areas – 22 m at the property boundary based on reservoir at minimum operating level (MOL)	• 22 m at property boundary (under normal operating conditions (PH))
Maximum operating pressure		• 80 m at the boundary based on the reservoir at TWL	• 80 m
Target pressure		• 55 m at the property boundary based on the reservoir level at TWL	• 55 m

SKM considers that the standards used for this project are appropriate as those adopted by Logan City Council align with those in the *SEQ Water Supply and Sewerage Design and Construction Code* (Gold Coast City Council, Logan City Council, Queensland Urban Utilities, Redland City Council and Unitywater, July 2013).

E.7 Project cost

The project budget for the project is outlined below.

Table E.3 : Estimated total project costs (Logan Water Alliance, September 2013)

Capital cost		Maintenance costs
Description	**Cost**	
DMA inlet installations and associated equipment	$1,729,365	$60,000 per year
Pipeline augmentations	$2,753,230	
Total	**$4,482,595**	

The cost estimates for the project were developed by Logan Water Alliance based on a number of different information sources. The method adopted for each component is documented as follows:

- PRV and Control panels – The PRVs were sized by the preferred Cla-Val valve supplier and a budget price was provided for each size PRV and control panel
- Flow meters – Budget prices were provided for the preferred Endress + Hauser 50W electromagnetic flow meters
- DMA pits – The first principle cost estimate for the DMA pits was based on a standard DMA pit design as constructed by the LWA in a Logan North DMA
- Telemetry outstations – the cost estimate for the telemetry outstation is based on similar outstations installed and commissioned recently by LWA for Logan City Council
- Power supplies – The length of power supply conduits and number of road crossings was multiplied by the average rates charged by electrical contractors doing similar work for LWA in Logan
- Pipeline augmentations – The cost of the pipeline augmentations is based on a first principle breakdown of works required to install each pipeline
- Design and Project Management – A 20% on-cost has been allocated to the base cost of the pipeline augmentations. This cost includes design, project management and site supervision. A 30% on-cost has been allocated to the base cost of the inlet structure and telemetry installation costs.
- Budget contingency allowance – A contingency sum of 20% has been added to the cost of each component (Logan Water Alliance, September 2013)

The *Summary for: XA006 Logan East PLMP and Fire Flow Project* (Logan City Council, no date) states that an independent cost review will be undertaken during the TOC development.

Based on the project scope SKM developed a cost estimate for the construction costs for the DMA inlet installations and associated equipment and pipeline augmentations based recent project experience.

Table E.4 : Project cost estimate

Description	Cost		Difference	
	Logan City Council	SKM	Value	Percentage
DMA inlet installations and associated equipment	$1,152,910	$1,320,000	$167,090	14%
Pipeline augmentations	$1,911,965	$1,503,750	-$408,215	-21%
Total	**$3,064,875**	**$2,823,750**	**-$241,125**	**-8%**

As can be seen in **Table E.4**, SKM's estimate is approximately 14% higher for the DMA inlet installation and associated equipment works and approximately 21% lower for pipeline augmentation works. As these are within SKM's ± 30% order of magnitude cost estimate, SKM considers that the base costs for the construction works are appropriate.

SKM considers the methodology used for the development of the construction cost estimates is appropriate.

Following the issue of SKM's draft report, Logan City Council provided a further cost breakdown for the project (LCC Response to SKM Price Monitoring Draft Report: Logan City Council 2013-15). This cost breakdown split costs into the following four categories: direct costs, on-costs, risk and opportunity and project fees.

SKM has reviewed the breakdown provided and agrees with the apportionment of costs with the following exceptions: the transfer of costs associated with the Design Group Project Management and the Environmental Group to on costs. The estimated costs from Logan City Council and SKM's estimated costs showing this revised cost allocation are shown in **Table E.5**.

Table E.5 : Revised project costs (Source: Logan City Council, December 2013)

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$2,816,742	100.0%	$2,748,879	100.0%
On Costs	$550,450	19.5%	$618,312	22.5%
Risk and Opportunity	$689,454	24.5%	$689,454	25.1%
Project Fees	$425,949	15.1%	$425,949	15.5%
Total Capital Works Estimate	**$4,482,595**		**$4,482,594**	

In addition to the above costs are the project scoping and detailed planning costs ($181,305), were not included in the previous budget costs. The addition of these costs and the impact on the on cost total is shown below.

Table E.6 : Revised project costs, including project scoping and detailed planning costs

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$2,816,742	100.0%	$2,748,879	100.0%
On Costs	$731,755	26.0%	$799,617	29.1%
Risk and Opportunity	$689,454	24.5%	$689,454	25.1%
Project Fees	$425,949	15.1%	$425,949	15.5%
Total Capital Works Estimate	**$4,663,900**		**$4,663,899**	

In addition, Logan City Council stated that they believe that the fee component should be included in the direct costs. SKM generally agrees with this approach, but only the project fee component for the contractor should be included in the direct cost. Therefore, in order to allow only the contractors profit margin to be included, SKM sought further information regarding the split of the project fee between the designers and the contractor.

In response to this query, Logan City Council stated that "*very little of the Project Fee shown relates to design or other services such as the environmental group*."

Assuming that only 3% of the project fees are attributed to the designer, the revised calculation of on-costs is shown below.

Table E.7 : Revised project costs including project fee (Logan City Council, December 2013)

Description	LCC Revised Estimate	Percentage of direct costs	SKM Estimate	Percentage of direct costs
Direct Delivery Cost	$3,242,691	100.0%	$3,153,531	100.0%
On Costs	$731,755	22.6%	$820,914	26.0%
Risk and Opportunity	$689,454	21.3%	$689,454	21.9%
Total Capital Works Estimate	**$4,663,900**		**$4,663,899**	

The on costs for the project account for approximately 26% of the direct costs, which is higher than both the recommended on costs from the Priority Infrastructure Plan: Unit Rates Report of 20% and SKM's recommended on costs (refer to Section 5.4). SKM considers these costs to be excessive. In addition, the risk and opportunity costs are high. SKM proposes the following reductions.

Table E.8 : Recommended project cost reductions

Description	Logan City Council	% of direct costs	SKM recommended cost	SKM recommended% of direct costs
Direct Delivery Cost	$3,242,691	100.0%	$3,162,050	100.0%
On Costs	$731,755	22.6%	$632,410	20.0%
Risk and Opportunity	$689,454	21.3%	$632,410	20.0%
Total	**$4,663,900**		**$4,426,869**	
Less design costs	$181,305		$181,305	
Total	**$4,482,595**		**$4,245,564**	

SKM recommends that the total project budget be reduced by approximately $0.24 M (or 5%) from $4.48 M to $4.24 M.

As SKM's estimated value ($4.24 M) is higher than the value originally submitted by Logan City Council in the template ($3.95 M), SKM suggests that the lower number be adopted until the variation can be resolved.

E.8 Efficiency gains

No efficiency gains have been identified for this project.

E.9 Implications for operating expenditure

The *Logan East Water Supply DMA Management and Fire Flow Augmentations Detailed Planning* (Logan Water Alliance, September 2013) states:

> *"The reduction in leaks and bursts as a result of this project was estimated using a WSAA approved methodology. It is forecast that the number of bursts in the water supply area will reduce by 48% (or 19.6 bursts per year) as a result of the proposed pressure management. This will result in a saving in burst repair costs of $68,000 per year.*
>
> *It is also estimated that the volume of leakage in the Logan East DMAs will reduce by 150 ML/year and result in a cost saving of $396,000 per year. The total estimated cost savings from both reduced water losses and reduction in burst repairs the project will exceed $464,000 per year."*

E.10 Policies and procedures

Table E.9 below identifies how the project has complied with the appropriate policies and procedures.

Table E.9 : Logan East PLMP and Fire Flow Project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	The project will allow Logan City Council to better monitor and control their water network. The implementation of the project has the potential to save over $450,000 each year.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Not applicable	The consideration of alternative investments such as substitution possibilities between operating costs and capital expenditure are not applicable to this project.

Initiative	Achievement (Yes/No/Partial)	Comment
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	No	The *Priority Infrastructure Plan Unit Rates Report* (Logan Water Alliance, 3 March 2011) outlines a methodology for cost estimation including recommended percentages for Owner's costs and contingencies. The values used for this project are higher than those proposed in this document.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	*Summary for: XA006 Logan East PLMP and Fire Flow Project* (Logan City Council, no date)
An implementation strategy to be developed for each major project	No	No evidence of a documented implementation strategy has been provided.
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	Yes	Logan City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements. In accordance with the *Memorandum – QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 60: Council Approval Process* (Logan City Council, 21 October 2013) SKM would expect to see: • Project Brief • Adoption Memorandum and Planning Report Summary • Evidence of Capital Works Program Reviews All of these documents (or similar) were provided for this project.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	The standards used for the project align with the SEQ D&C Code.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

E.11 Prudency and efficiency

SKM considers that improvement and compliance are the appropriate drivers for the project given that the existing flow monitoring system was not maintained and is no longer operational, and given that sections of the network are not meeting fire flow requirements specified in the under the *SEQ Water Supply and Sewerage Design and Construction Code*. In addition the project should result in savings of $464,000 per year from both reduced water losses and reduction in burst repairs. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM concludes that the project is prudent.

SKM considers that the project will be completed and commissioned within the review period. SKM also considers that the standards used for this project are appropriate as those adopted by Logan City Council align with those in the *SEQ Water Supply and Sewerage Design and Construction Code*.

SKM considers the methodology used for the development of the construction cost estimates is appropriate.

In reviewing the cost estimates for the project, SKM considers the allowances for on-costs and contingency to be high. As such, SKM recommends the on-cost allowance be reduced to 20% of the direct costs and the contingency allowance be reduced to 20% of the direct costs. SKM's estimated value ($4.24 M) is higher than the value originally submitted by Logan City Council in the Information Requirement Template ($3.95 M). SKM suggests that the lower number be adopted until the variation can be resolved.

SKM finds the project the prudent and partially efficient.

E.12 Assessment of reported expenditure

Table E.10 below identifies the revised capital expenditure for the Logan East PLMP and Fire Flow Project.

Table E.10 : Logan East PLMP and Fire Flow Project revised capital expenditure

Project	2013-2014 ($'000)	2014-2015 ($'000)	Total ($'000)
Logan East PLMP and Fire Flow Project	1,142	2,810	**3,952**
SKM proposed value	1,142	2,810	**3,952**
Variation (to QCA submitted value)	0	0	0

E.13 Extrapolation to other projects

The systemic issue of high on-costs is discussed in Section 5.4.

Appendix F. XMR00 - Water Reticulation Main Replacement

F.1 Project description

The objective of this project is to improve the service continuity by extending the life of the asset group and reducing the unplanned water interruption. This is an annual program for the replacement of DN100 and DN150 water pipes in various locations within Logan City. Projects are prioritised through consideration of historical failures, visual condition inspection, failure consequence, and operational issues.

F.2 Proposed capital expenditure

Table F.1 shows the proposed cost of the Water Reticulation Main Replacement project within the 2013/15 budget.

Table F.1 : Logan Water Reticulation Main Replacement project proposed capital expenditure ($'000)

Source	Previous years ($'000)	2013-2014 ($'000)	2014-2015 ($'000)	Subsequent years ($'000)	Total ($'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	2,752	2,058	5,000	0	**9,811**
20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15	0	2,058	5,000	0	**7,058**
Water Reticulation Main Renewal Program 2013/14 – Project Brief, Business Case, Prudency and Efficiency Test (Logan City Council, February 2013)	0	2,025	5,000	5,000	**12,025**

The total project costs vary depending on the source of the information provided to SKM. SKM understands from advice from Logan City Council that the Information Template submitted to the Authority and the *20 Year Demand Forecast - Capital Works projects scheduled for commissioning during FY2013/14 and FY2014/15* spread sheet represents the latest and hence most accurate project costs.

Following the issue of SKM's draft report, Logan City Council advised that: "the title of the program included in the submission was "Water Reticulation Main Replacement" as the large majority of projects included in the program are reticulation mains. However, there is no separate program as such for trunk main replacement and the forward projections used for future budgets are a mix of reticulation and trunk. In fact, other than for the very large mains (450 mm and above) a number of the water mains serve the purposes of trunk and reticulation mains. Therefore in future the program will be retitled "Water Main Replacement Program" to align with the Asset and Services Management Plan and the Water NetServ Plan."

F.3 Documentation reviewed

The key reference documents used for this review are:

- *Summary for: XMR00 Water Reticulation Main Replacement* (Logan City Council, no date)
- *Change Request - Scope and Budget Adjustment* (Logan City Council, July 2013)
- *Water Reticulation Main Renewal Program 2014/15 – Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, June 2013)
- *Water Reticulation Main Renewal Program 2013/14 – Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, February 2013)
- *Water Reticulation Main Renewal Program 2013/14 FY_Revised* (Logan City Council, no date)
- *Water Reticulation Main Replacement Projects for 2013/14 Program – GPS Maps* (Logan City Council, no date)

- *Water Supply (Pipes) Unit Rate Analysis for outsourced main replacement projects in 2012/13* (Logan City Council, no date)
- Procedure - Preliminary Renewal Planning for Network Assets, Allconnex Water 8 July 2010 (Allconnex Water, 8 July 2010)

F.4 Key drivers

The primary cost driver identified by Logan City Council for this project is renewal. The objectives of the project are to improve the service continuity by extending the life of the asset and to reduce the number of unplanned water interruptions.

The *Water Reticulation Main Renewal Program 2014/15 – Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, June 2013) states:

> *"Logan water network infrastructure has experienced a high breakage rate in their 100 mm diameter Asbestos Cement (AC) pipes since recent past. In order to manage this particular asset group effectively a proactive renewal program was developed in addition to the Pressure and Leakage Management Program.*
>
> *According to the prevailing market rates of this project, only about 4 km which is 0.8% of this asset group was able to replace per annum within the previously allocated budget limit.*
>
> *At least about 10 km (2%) of this asset group will require to be replaced per annum in line with Asset Management plans which are being developed to manage the assets with respect to the age and their remaining useful life."*

SKM considers that renewal is the appropriate driver for the project as failure to replace the mains could result in service interruptions and income loss.

F.5 The scope of works

F.5.1 Solutions development

The *Procedure - Preliminary Renewal Planning for Network Assets* (Allconnex Water, 8 July 2010) includes the following description of the process used for planning renewals.

The type of data required for pipeline renewal planning is as follows:

Type of Data	Purpose of Data
Pipe age & material	Indicates potential pipeline condition
Ground conditions	
Concentration of sulphides & trade waste in pipelines (sewerage pipelines only)	
Performance history	Indicates actual pipeline condition
Pipe condition assessment	
Pipeline type	Indicates potential consequence of failure in relation to environmental impact, disruption to customers, risk to health and safety, and difficulty and cost of repair
Pipeline diameter	
Pipeline location	Indicates potential consequence of failure in relation to environmental impact, disruption to transportation, risk to health and safety, and difficulty and cost of repair
Pipeline replacement cost	Indicates renewal cost

Other aspects taken into consideration include the population serviced and the type of service provided (ie hospital water supply).

AssetPLAN is used to undertake the following analysis of data for each asset:

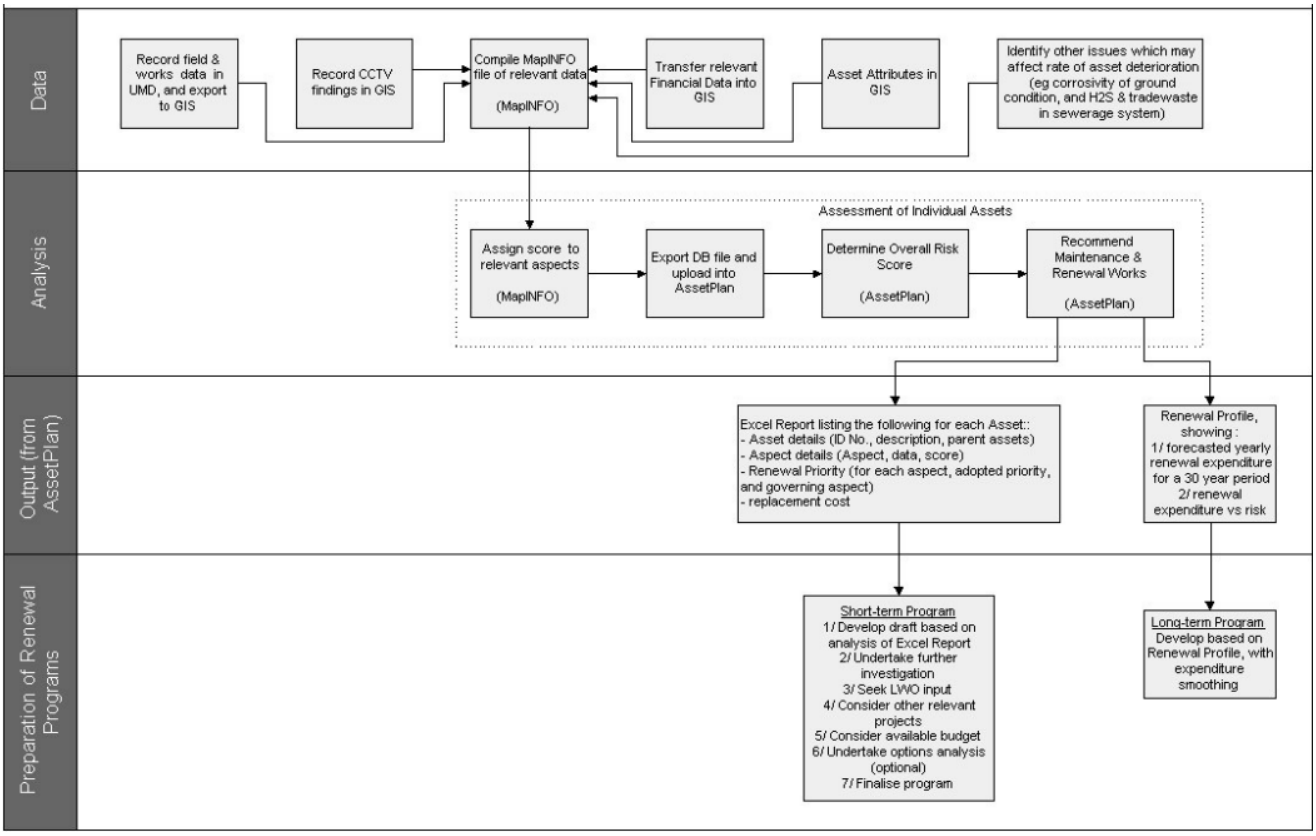
1) Determine overall condition score, and consequence score
2) From 1 above, assign the level of risk
3) From 2 above, determine the required actions, and proposed timing (Allconnex Water, 8 July 2010)

The outputs to be obtained from AssetPLAN comprise of the following:

- Renewal Profile, showing
  - Forecasted yearly renewal expenditure for a 30 year period
  - Year 1 renewal expenditure versus risk
- Renewal Profile breakdown, comprising of an Excel® report listing the following for each Asset:
  - Asset details (eg ID No., description, parent assets)
  - Assessment details for each aspect (eg condition & consequence)
  - Proposed renewal timeframe, including governing aspect
  - Estimated replacement cost (Allconnex Water, 8 July 2010)

The renewal profile breakdown is used as the basis for developing the short-term and long-term program. The general steps for developing the program are shown in the flowchart below.

Figure 6-2 : Proposed New Network Pipeline Asset Renewal Planning Process (Allconnex Water, 8 July 2010)



Once mains for renewal have been identified, two options are considered:

- Do nothing
- Replace assets (Allconnex Water, 8 July 2010)

The benefits, disadvantages, risks, issues and costs associated with the two options are considered and the option to proceed with the projects is determined. The determination of assets to be included in the program takes into consideration other projects that are planned or occurring within the water area as well as in wider council, ie roads and parks. Replacement of mains is undertaken by digging up the existing main and replacing with a new main.

SKM considers that the process used for the identification and prioritisation of water mains to be included in the program of works is appropriate as it is based upon a consideration of risk and condition and, as such, is in line with good asset management practice. However, SKM notes that no evidence of the implementation of the process has been provided by Logan City Council.

The scope of works planned for delivery in 2013-14 includes the replacement of approximately 4.3 km of 80 mm to 150 mm water mains (Logan City Council, no date). The scope of works planned for delivery in 2014-15 has not been finalised but is anticipated to include the replacement of approximately 10 km of water mains (Logan City Council, June 2013).

Following the issue of SKM's draft report, Logan City Council has identified the following list of projects for the 2014/15 program.

1. 2500m of DN200 AC (old Italian) main along Beaudesert-Beenleigh Road, Wolffdene
2. 1300m of DN300 White uPVC main along Mount Warren Boulevard, Mt Warren Park
3. 1300m of DN50 PE main in Dunns Road, Wolffdene
4. 1020m of DN100 AC main in Jean street, Woodridge
5. 165m of DN100 AC main in Franklin Street, Rochedale South
6. 500m of DN100 AC main in Vermont Crescent, Mt. Warren Park
7. 300m of DN100 AC main in Guyra Close & Bramley Court, Mt Warren Park
8. 440m of DN100 AC main in Abelia Drive , Waterford west
9. 280m of DN100 AC main in Eloise Avenue, Springwood
10. 300m of DN100 AC main in Doveton Crescent, Mt Warren Park
11. 390m of DN100 AC main in Somerset Street, Rochedale South
12. 375m of DN100 AC main in Turnbull Street, Shailer Park
13. 435m of DN100 AC main in Attunda Street, Meadowbrook
14. 300m of DN100 AC main in Argonaut & Audrey Street, Slacks Creek
15. 135m of DN100 AC main in Dale Street, Kingston
16. 1020m of DN150 AC main in Albert Street, Woodridge

In total approximately 10.8 km of mains are included in the 2014-15 program. SKM understands that detailed estimates have not yet been completed for these projects. However, this work will be completed in the next few months. No details of risk and condition scores for these mains have been provided for review.

F.5.2 Project delivery

The project briefs for the 2013-14 and 2014-15 programs state:

> *"Some of the projects identified for the renewal program, will be undertaken by day labour construction and some are outsourced by contracts with combine supply and installation.*
>
> *Detailed designs will be done by in house for all projects."*

The *Tender Evaluation and Probity Plan* for the selection of a contractor for Water Reticulation Main Replacement Package 1 for the year 2013/14 program was provided by Logan City Council (Logan City Council, 2013).

The plan states that tenders are evaluated on the following criteria:

- Relevant Experience (10%)
- Track Record (10%)
- Key Personnel for the project (5%)
- Quality and Environmental Management Plans (5%)
- Workplace Health and Safety (10%)
- Work Program (5%)
- Local Business (5%)
- Price (50%) (Logan City Council, 2013)

SKM considers the above criteria and weightings to be reasonable.

Tenders were invited by public advertising on 15 June 2013 and the invitation was closed on 11 July 2013. At the close of the tender period, 11 tenders were received. The four lowest cost tenders were considered for detailed evaluation. Each tender was evaluated on the above criteria. From the evaluation it was determined that Tonel Holdings Pty Ltd had submitted the best value for money offer which is most advantageous to Logan City Council. Tonel Holdings Pty Ltd was awarded the contract in August 2013 for a total of $549,500 excluding GST. (Logan City Council, 6 August 2013).

SKM notes that while Tonel Holdings Pty Ltd did not submit the lowest price, they scored highest in the tender evaluation. SKM considers that a traditional approach to tender evaluation is to evaluate the tenders on non-cost criteria first, and then review the shortlist based on price. However, SKM considers that due to the large number of tenders received that Logan City Council's approach was efficient and evaluation of the tenders in the traditional manner would not have altered the outcome.

Logan City Council is proposing a significant increase in the quantity of work to be undertaken in the 2014-15 financial year, and the years beyond. SKM therefore believes that a significant portion of the construction work will need to be outsourced for the program to be able to be delivered within the proposed timeframes.

In *QCA Information Request Response - RFI 59* (Logan City Council, October 2013), Logan City Council states that financial models were prepared for the water mains based on the age, material and diameter of the assets, utilising the unit rates and estimated lives provided as part of the valuation. As a result of this, 30 year projected renewals based on a 15 and 20 year rolling average were developed.

In *QCA Information Request Response - RFI 59* (Logan City Council, October 2013), Logan City Council states that:

- *"The capital budget for 2013/14 aligns with the estimated projected renewals based on the 15 year rolling average and consideration of expenditure in previous financial years.*
- *The capital budget for 2014/15 represents an average of the 15 year and 20 year rolling averages (approximately $4.3 m) plus a 20% allowance for the additional construction costs likely to be incurred based on current contract rates."*

F.6 Standards of service

The project involves the replacement of existing water main. As such the new sections of main will need to be designed to connect to existing sections of water mains.

The *Summary for: XMR00 Water Reticulation Main Replacement* (Logan City Council, no date)states the

"Water supply customer service standards adopted in Draft Water Netserv Plan (Part A) - Appendix A;

- *Water main breaks < 20 breaks per 100 m of main per annum.*
- *Number of unplanned interruption < 150 per 1000 connections per annum*
- *Time for restoration for service 95% within < 5 hours"*

SKM considers that the standards used for this project are appropriate. SKM understands that pipe breaks and service interruptions are into consideration when selecting and prioritising mains for replacement (as discussed in **Section F.5**).

F.7 Project cost

The project budgets for 2013-14 and 2014-15 are outlined below. The detailed costs for the water mains to be replaced in 2014-15 have not yet been finalised.

Table F.2 : Estimated project costs

Description	2013-14 ($)*	2014-15 ($)†
Construction cost	1,557,750	NA
Contingency (5%)	77,888	NA
Survey, environmental or geotechnical investigations (5%)	77,888	NA
Design and tender (5%)	77,888	NA
Project management (10%)	155,775	NA
Other (eg. O&M services) (5%)	77,888	NA
Sub-Total	**$2,025,075**	**$5,000,000**
Additional projects	+ 997,750	NA
Removed projects	- 880,750	NA
Total	**$2,142,075**	**$5,000,000**

* *Water Reticulation Main Renewal Program 2013/14 – Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, February 2013)

† *Water Reticulation Main Renewal Program 2014/15 – Project Brief, Business Case, Prudency and Efficiency Test* (Logan City Council, June 2013)

SKM considers the inclusion of 25% on-costs (ie. survey, environmental or geotechnical investigations; design and tender; project management; and other costs) to be on the high side, particularly considering that the program is not likely to require significant design work. SKM recommends a reduction to 20%.

From the 2013-14 and 2014-15 project budgets it can be seen that Logan City Council has increased the program's budget by over 50% for the coming the 2014-15 financial year, and intends to spend over $5 M each year for at least the subsequent three years.

The increase in the 2013-14 budget to 2014-15 budget is due to the quantity of water main proposed to be replaced, ie the 2013-14 budget is for the supply and installation of approximately 3.6 km of main, while the 2014-15 budget is for approximately 10 km of main.

In response to SKM's draft report, Logan City Council provided further information supporting the increase in the size of the program as follows:

Over recent years the water mains replacement program has been in the order of $2-3 M. The program for 2013/14 in water reticulation renewals is $2 M which will be project managed directly by Logan City Council staff. There are also two significant trunk main replacement projects which are being undertaken by the Logan Water Alliance (2 km of 200 mm water main along Mt Lindsay Hwy and 300 mm water main in

George Street Beenleigh which is included in the Pressure and Leakage and Fire Flow improvement project). Therefore the water mains renewals projects being undertaken in 2013/14 are estimated to be in the order of $4.0 M.

The approach to water mains renewals is to smoothly ramp up the program to the levels that are anticipated to be required in the next 5 to 10 years. We are using a rolling 20 year average for budget planning purposes to smooth out the program of works. We have a significant proportion of AC mains in the City and we are finding that significant components of these mains are not achieving their theoretical design life.

SKM acknowledges that including the mains within the Pressure and Leakage and Fire Flow improvement project as water mains renewals results in a less significant increase in costs between the 2013-14 program and the 2014-15 program. In future, SKM would expect to see further justification for inclusion of water mains, including risk and conditions scores, as per Logan City Council's documented procedures.

SKM developed a cost estimate for the program of works based on the 2013-14 program and the costs of the 2012-13 program (from the *Water Supply (Pipes) Unit Rate Analysis for outsourced main replacement projects in 2012/13* (Logan City Council, no date)). SKM's estimate is within 1.5% of Logan City Council 2013-14 budget.

SKM has also compared the unit rates used by Logan City Council, in the development of the estimated program costs, with those used by Gold Coast City Council, as outlined below.

Table F.3 : Comparison of unit rates

Pipe diameter (mm)	Unit Rate ($/m)	
	Logan City Council	Example tendered rates*
100	350 to 400[†]	Not available
150	450	$330 to $480

[†] If pipe length is less than 300 m - $400/m; if pipe length is greater than 300 m - $350/m

*Based on tendered rates plus 15% on-costs and 5% contingency

The units rates used are in-line with the example unit rates and are therefore reasonable.

Logan City Council has assumed a 20% increase in contract rates in future years. In response to SKM's draft report, it was stated that the unit rates used for the renewal construction estimates has been significantly lower than the actual costs experienced over the past couple of years. The reason for this is stated as follows:

The unit rates provided by Cardno as part of the asset valuation represent an average replacement cost for running parallel water mains. The majority of water mains being replaced by the Logan Water Business are Asbestos Cement (AC). Current practice generally involves excavation and disposal of the pipes to minimise congestion of services in the footpaths and avoid potential future operational issues. Based on recent contract data, the Water Business incurs additional costs for the following items:

- *Additional fittings (3 x standard number of gate / sluice valves)*
- *Thrust restraints*
- *Water services replacement*
- *Temporary bypass mains (includes fire fighting capacity)*
- *Temporary road crossings (includes trafficable ramps)*
- *Temporary driveway crossings (includes trafficable ramps)*
- *Live tie-Ins / connections (3 x standard number of cut-ins)*
- *Chlorination (3 x standard chlorination activities)*
- *Pressure testing (3 x standard number of pressure tests)*

- *Concrete footpath excavation and reinstatement*
- *Road pavement excavation and reinstatement*
- *Turfed footpath excavation and reinstatement*
- *Traffic control*
- *Removal and disposal of AC mains*
- *Economies of scale (small length projects less than 250m)*

SKM understands that the program costs were developed on a unit rates based on a recently tendered program of works. The LCC_DOCS-#8030688-v1-Unit_Rate_Analysis_for_Water_Main_Renewal_Program states that the unit rates were based on outsourced mains replacement projects in 2012-13 and include all preliminary work, supply and installation, restoration work, testing and commissioning and disposal of the AC pipe. No further evidence was provided to support the proposed increase in unit rates. As such, SKM finds this to be unjustified.

SKM considers that the development of cost estimates based on unit rates from a recently tendered program of works to be acceptable. In addition as the construction works will be awarded through a competitive tender process and hence will be market tested. SKM therefore concludes that the budget for the 2013-14 program to be generally efficient, but recommends a 5% reduction to account for high on-costs.

SKM recommends that the costs for the 2014-15 budget are reduced based on the lack of evidence to support an increase in unit rates of 20%.

Table F.4 : Project cost - 2013-14 budget

Description	Logan City Council	% of direct costs	Revised	% of direct costs
Base cost	$1,557,750		$1,557,750	
Adjustments	$117,000		$117,000	
On-costs	$389,438	25%	$311,550	20%
Contingency	$77,887	5%	$77,887	5%
Total	**$2,142,075**		**$2,064,188**	

Table F.5 : Project cost - 2014-15 budget

Description	Value
2013-14 Total	$2,142,075
Percentage of base costs to total costs for 2013-14	73%
2014-15 Total	$5,000,000
Assumed base costs based on percentage of base costs to total costs for 2013-14	$3,636,077
Allowing for a 20% reduction in base costs	$2,908,862
On-costs (@ 25%)	$727,215
Contingency (@5%)	$145,443
Total	**$3,781,520**

F.8 Efficiency gains

Logan City Council states that water mains to be replaced in adjacent streets or in the same area will be programmed or bundled together for efficiency gains.

F.9 Implications for operating expenditure

The operating expenditure for water mains owned by Logan City Council is likely to reduce over time in line with the program of works to replace older, more leak prone, mains.

F.10 Policies and procedures

Table F.6 below identifies how the project has complied with the appropriate policies and procedures.

Table F.6 : Water Reticulation Main Replacement project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudency and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	Consideration is giving to other proposed works and its timing prior to inclusion in the program.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Yes	The failure history of a water main is a key factor in the determination of mains to be included in the program especially those resulting in water interruptions and water loss.
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	No	The *Priority Infrastructure Plan Unit Rates Report* (Logan Water Alliance, 3 March 2011) outlines a methodology for cost estimation including recommended percentages for Owner's costs and contingencies. The values used for this project are higher than those proposed in this document.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	*Summary for: XMR00 Water Reticulation Main Replacement* (Logan City Council, no date)
An implementation strategy to be developed for each major project	No	No evidence of a documented implementation strategy has been provided.
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	No	Logan City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements. In accordance with the *Memorandum – QCA 2013-15 SEQ Price Monitoring Request for Information RFI LCC 60: Council Approval Process* (Logan City Council, 21 October 2013) SKM would expect to see: • Project Brief • Adoption Memorandum and Planning Report Summary • Evidence of Capital Works Program Reviews No Adoption Memorandum, Planning Report Summary or Evidence of Capital Works Program Reviews were provided for this project.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	As the project involves the replacement of sections of water main, the new pipeline must take into consideration existing, adjacent infrastructure.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

F.11 Prudency and efficiency

SKM considers that renewal is the appropriate driver for this project as failure to replace the water mains could result in service interruptions and income loss. SKM considers that the process used for the identification and

prioritisation of water mains to be included in the program of works is appropriate as it is based upon a consideration of risk and asset management. However, SKM notes that no evidence of the implementation of the process has been provided. Nevertheless, SKM concludes that the project is prudent.

SKM considers that the development of cost estimates based on unit rates from historical delivery of the program is acceptable. In addition as the construction works will be awarded through a competitive tender process and hence will be market tested. SKM therefore concludes that the budget for the 2013-14 program to be generally efficient, but recommends a 5% reduction to account for high on-costs.

For the 2014-15 budget, no additional supporting information has been provided to account for the assumed 20% increase in contract rates. As such SKM recommends an adjustment to remove this increase in unit rates.

F.12 Assessment of reported expenditure

Table F.7 below identifies the revised capital expenditure for the Water Reticulation Main Replacement project.

Table F.7 : Water Reticulation Main Replacement project revised capital expenditure

Project	2013-2014 ($'000)	2014-2015 ($'000)	Total ($'000)
Water Reticulation Main Replacement project	2,058	5,000	**7,058**
SKM proposed value	2,058	3,781	5,839
Variation (to QCA submitted value)	0	-1,219	-1,219

F.13 Extrapolation to other projects

The issue of high on-costs is discussed in Section 5.4.

Appendix G. Terms of Reference

Terms of Reference

2013-15 SEQ Price Monitoring

Assessment of Operating and Capital Costs

1. Project Background

1.1 Queensland Competition Authority

The Queensland Competition Authority (the Authority) is an independent statutory body responsible for assisting with the implementation of competition policy for government owned business entities in Queensland.

1.2 Retail Water Price Monitoring in South-East Queensland

The monopoly distribution and retail water and wastewater activities of Unitywater, Queensland Urban Utilities (QUU), Logan City Council, Redland City Council and Gold Coast City Council (the entities) have been referred to the Authority for a price monitoring investigation for the two-year period 1 July 2013 to 30 June 2015. A copy of the Ministers' Referral Notice (the Notice) is available on the Authority's website.[1]

The price monitoring investigation for 2013-15 follows and must build on three years of annual interim price monitoring from 2010-13.

The Authority has identified the information requirements for 2013-15 and issued each of the entities with information templates that indicate the form and nature of information required for price monitoring.

2. Purpose of Consultancy

The purpose of this consultancy is to assist the Authority to assess operating and capital expenditure of each entity based on the following approach:

(a) assess the existence of robust policies and procedures having regard to good industry practice, as well as compliance, using a sample of capital expenditure projects and operating expenditure categories;

(b) assess the robustness of the operating and capital expenditure program planning and delivery processes in an overall sense and identify any areas for improvement; and

(c) form a view on the prudency and efficiency of capital and operating expenditure, focussing on any areas of significant cost increase and identifying the reasons why.

The consultancy shall consist of two components.

2.1 Component 1 – Sample Selection

The consultancy must be based on each entity's policies and procedures, and planning and delivery processes, and a detailed review of a sample of capital projects and operating costs.

[1] The Ministers' Referral Notice is accessible at http://www.qca.org.au/water/SEQRetailPriceMon201315/.

Operating Expenditure

The sample operating expenditure categories for detailed review are employee expenses (including contractors), electricity, other materials and services, and corporate overheads. The consultant must identify the areas of significant cost increase within these categories.

Capital Expenditure

The Authority will select the capital expenditure sample for review in consultation with the consultant. As per the Notice, the capital expenditure sample will include six projects per entity (30 in total).

The actual sample size may differ, depending on each entity's submission (see worksheet 5.6.2 of the information template). To this end, the consultant is required to provide an indicative unit rate per additional forecast project and a unit rate per previously reviewed project.

2.2 Component 2 - Prudency and Efficiency of Costs

The consultant must assess whether each of the entities' operating and capital expenditure from 1 July 2013 is prudent and efficient.

Operating Expenditure

The consultant must assess whether each of the entities' operating costs from 1 July 2013 are prudent and efficient. In doing so, the consultant must:

(a) assess whether the entities' policies and procedures for operating expenditure are robust having regard to good industry practice, as well as compliance, for the four sampled expenditure categories;

(b) assess whether the operating program planning and delivery processes is robust and identify any areas for improvement; identify any efficiencies sought or achieved by the entities;

(c) report on the entities' progress against the savings targets set by the Authority in its previous interim price monitoring reports. For councils, the most recent relevant report is for 2011-12 in relation to Allconnex Water;

(d) for the sample of operating expenditures identified in Component 1 above:

  (i) describe the drivers of significant increases in 2013-15 operating expenditure relative to 2012-13 and 2011-12 including whether the expenditure is driven by legal obligations, new growth (see (d) below), operations and maintenance of existing infrastructure, or it achieves an increase in the standard of service that is explicitly endorsed by customers, external agencies or participating councils;

  (ii) assess whether the unit rates and indexes used to escalate costs are consistent with prevailing market conditions and historical trends;

  (iii) assess whether each of the sampled cost items are prudent and efficient. Operating expenditure is prudent if it is required to meet the entities' requirements relating to its legal and regulatory obligations or its contracts with customers. Operating expenditure is efficient if it is undertaken in a least-cost manner over the life of the relevant assets and is consistent with relevant benchmarks. The relevant benchmarks are to be agreed with the Authority; and

(iv) identify the value of any expenditure considered not to be prudent or efficient;

(e) where relevant, liaise with the Authority and its consultants appointed for the review of demand to ensure that consistent advice is provided to the Authority; and

(f) identify the value of any further savings that could be made, including from recent Government initiatives intended to relieve cost pressures on the entities.

Capital Expenditure

The consultant must follow the process and criteria set out in section 4.7 of the Final Report – SEQ Interim Price Monitoring Framework (April 2010)[2], and:

(a) assess whether the entities' policies and procedures for capital expenditure are robust having regard to good industry practice, as well as compliance, using the six sampled projects per entity. In particular, the policies and procedures should reflect strategic development plans, integrate risk and asset management planning, corporate directives, regional priorities, be consistent with external drivers, and incorporate robust procurement practices;

(b) the review of policies and procedures should also report on whether the entity:

(i) considers the prudency and efficiency of expenditure from a regional perspective;

(ii) includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices;

(iii) applies a standardised approach to cost estimating, including for items such as indexation, contingency, preliminary and general items, design fees and contractor margins;

(iv) prepares a summary document and implementation strategy for major projects and programs; and

(v) includes a 'toll gate' or 'gateway' review process at relevant milestone stages;

(c) assess the robustness of each entity's capital expenditure program and delivery processes in an overall sense and identify any areas for improvement;

(d) form a view on the prudency and efficiency of sampled capital expenditure, focussing on areas of significant cost increase and identifying the reasons why.

Capital expenditure is:

(i) prudent if it is required as a result of a legal obligation, new growth, renewal of existing infrastructure, or 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;

(ii) 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

[2] Available for download at http://www.qca.org.au/water/SEQinterim-price/finalreports.php.

having regard to the options available, including more cost-effective regional solutions, the substitution possibilities between capital and operational expenditure and non-network alternatives such as demand management;

– the standard of the works conforms with 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. Compliance with regulatory obligations (e.g. water netserv plans[3]) is likely to be highly relevant; and

– the cost of the defined scope and standard of works is consistent with conditions prevailing in the markets for engineering, equipment supply and construction. The consultant must substantiate its view with reference to relevant interstate and international benchmarks and information sources. For example, the source of comparable unit costs and indexes must be given and the efficiency of costs justified. The consultant should identify the reasons for any costs higher than normal commercial levels;

(e) identify the value of any sampled expenditure considered not to be prudent or efficient and whether the savings can be extrapolated;

(f) liaise with the Authority and its consultants appointed for the review of demand to ensure that consistent advice is provided to the Authority;

(g) identify any efficiency gains or economies of scale sought or achieved by the entities, and identify a prudent and efficient level of future gains with reference to appropriate benchmarks; and

(h) assess the regulatory asset lives for capital expenditure in 5.8.1.1, and the tax asset lives for capital expenditure in 5.8.1.2, against relevant benchmarks.

3. Resources/Data Provided

The consultant will be required to source information from the entities' information returns in the first instance, and will be required to liaise with the entities, the Authority and other stakeholders as appropriate to source further information.

To facilitate the flow of information, the consultant should consider:

(a) setting up a secure online portal for the provision of large documents from the entities;

(b) allowing for a number of days on site with each entity to ask follow up questions;

(c) keeping a weekly record of outstanding information for the entities and the Authority.

The Authority expects that the consultant will be familiar with:

(a) previous submissions and Authority price monitoring reports in 2010-13;

(b) SEQ Price Monitoring Information Requirements for 2013-15;

[3] Refer to the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009* (Qld).

(c) the Authority's SEQ Interim Price Monitoring Framework (April 2010); and

(d) the assessment of prudency and efficiency in other water reviews (including in other jurisdictions) and relevant approaches and benchmarks from these reviews.

4. Project Time Frame

4.1 Submissions and sample selection

As per the Notice, submissions from:

(a) Unitywater and QUU are due by 30 June 2013;

(b) Logan, Redland and Gold Coast City Councils are due by 30 September 2013.

Submissions will be provided to the consultant following appointment.

The consultant will be required to report on Component 1 within three business days of receiving the information returns.

4.2 Deliverables and report timeframes

The primary deliverables include:

(a) a report for each entity, one week after the consultant's visit, outlining preliminary findings for at least one sampled capital expenditure project and one sample operating expenditure category;

(b) staged delivery of the remaining items within the scope of the consultancy, culminating in a draft report by:

(i) Friday 2 August 2013 for Unitywater and QUU; and

(ii) Friday 1 November 2013 for Logan, Redland and Gold Coast City Councils.

(c) consultation with stakeholders following the release of the draft report (one week following the due dates of the preliminary draft report) which provides the last opportunity for stakeholders to provide further information; and

(d) a final report that addresses the views of stakeholders arising from consultation, by

(i) Friday 16 August 2013 for Unitywater and QUU; and

(ii) Friday 15 November 2013 for Logan, Redland and Gold Coast City Councils.

The consultant may also be required to provide further advice following the receipt of submissions on the Authority's Draft Report. The extent and scope of this work will depend on the nature of submissions. If required, this work will form a separate item under the contract (with separate terms of reference) to be charged at the agreed hourly rates.

5. Proposal Specifications and Fees

The proposal should:

- include the name, address and legal status of the tenderer;

- provide the proposed methods and approach to be applied;
- provide a fixed price quote for the provision of the services detailed herein; and
- nominate the key personnel who will be engaged on the assignment together with the following information:
  - name;
  - professional qualifications;
  - general experience and experience which is directly relevant to this assignment;
  - expected time each consultant will work on the project; and
  - standard fee rates for any contract variations.

The fixed price quoted is to be inclusive of all expenses and disbursements. A full breakdown of consultancy costs is required with staff costs reconciled to the consultancy work plan.

The consultant should invoice the lower of the fixed price quote or a time and materials cost.

A progress payment of 50% of the expected total payment can be made within 28 days of receiving an invoice following the Authority's acceptance of a satisfactory Draft Report. Total payment will be made within 28 days of receiving an invoice at the conclusion of the consultancy.

6. Contractual Arrangements

This consultancy will **only** be offered in accordance with the Authority's standard contractual agreement.

This agreement can be viewed at http://www.qca.org.au/about/consultancyagreement.php

7. Reporting

The consultant must provide its assessment in a clear and comprehensive manner to allow for ease of use in Authority reports.

The Authority requires reasoned and substantiated assessments, inclusion the provision of a high standard of detailed information. The Authority expects the consultant to substantiate and justify its conclusions with reference to relevant benchmarks and information sources.

The consultant should advise at earliest opportunity any critical issues that may impede progress of the consultancy, particularly issues that impact on the successful delivery of the Purpose of Consultancy outlined in Section 2 above.

The consultant may be required to provide the Authority with a formal presentation to all Authority staff on the findings of the draft and final reports. An electronic version of the final report is required, saved in Microsoft© Word with any numeric data in Microsoft© Excel.

8. Confidentiality

Under no circumstance is the selected consultant to divulge any information obtained from The Entities or the Authority for the purposes of this consultancy to any party other than with the express permission of the Entity and the Authority.

9. Conflicts of Interest

For the purpose of this consultancy, the consultant is required to affirm that there is no, and will not be any, conflict of interest as a result of this consultancy.

10. Authority Assessment of Proposal

The proposal will be assessed against the following criteria:

(a) understanding of the project;

(b) skills and experience of the firm and team;

(c) the proposed methods and approach;

(d) capacity to fulfil the project's timing requirements; and

(e) value for money.

In making its assessment against the criteria, the Authority will place most weight on relevant experience of the team members involved and the proposed method for the completion of the task.

11. Insurance

The consultant must hold all necessary work cover and professional indemnity insurance.

12. Quality Assurance

The consultant is required to include details of quality assurance procedures to be applied to all information and outputs provided to the Authority.

13. Grievances

If during the course of your engagement you wish to raise any grievances or make a complaint, please contact Mrs Robyn Farley-Sutton, Director Corporate Services, on (07) 3222 0505 or robyn.farley-sutton@qca.org.au

14. Lodgement of Proposals

Proposals are to be lodged with the Authority by **Monday 17 June 2013**.

For further information concerning this consultancy, please contact Shannon Murphy on (07) 3222 0592 or shannon.murphy@qca.org.au.

Proposals should be submitted to:

Director Water
Queensland Competition Authority

GPO Box 2257
Brisbane Qld 4001

Phone: (07) 3222 0555
Fax: (07) 3222 0599
Email: seqwater@qca.org.au