

Prudency and Efficiency Assessment - Redland City Council

QUEENSLAND COMPETITION AUTHORITY

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

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Contents

Limitation statement	1
1. Introduction	2
1.1 Terms of reference.....	3
1.2 Prudence and efficiency.....	3
1.3 Scope exclusions.....	4
1.4 Report overview.....	4
1.5 Application of assessment.....	4
2. Background	5
2.1 The entities.....	5
2.2 Redland City Council.....	6
2.3 The role of the Authority.....	8
3. Policies and procedures	10
3.1 Introduction.....	10
3.2 Capital expenditure policies and procedures.....	10
3.2.1 Good industry practice.....	10
3.2.2 Redland City Council process.....	14
3.2.3 Standardised approach to cost estimating.....	15
3.2.4 Prepares a summary document.....	15
3.2.5 Prepares an implementation strategy.....	15
3.2.6 Includes a 'gateway' review process.....	15
3.2.7 Includes a detailed analysis of options for major projects.....	16
3.2.8 Only includes only commissioned capital expenditure from 1 July 2010 in the RAB.....	16
3.2.9 Compliance.....	16
3.2.10 Considers regional perspective.....	19
3.2.11 Procurement.....	20
3.3 Operating expenditure policies and procedures.....	21
3.3.1 Good industry practice.....	21
3.3.2 Operating budget formation.....	23
3.3.3 Asset management system.....	23
3.3.4 Planned improvements to processes.....	25
3.4 Conclusion.....	26
4. Operating expenditure	27
4.1 Overview of operating expenditure.....	27
4.2 Benchmarking.....	30
4.2.1 Comparability of data.....	30
4.2.2 Australian Benchmarking.....	32
4.3 Sample selection.....	38
4.4 Corporate costs.....	39
4.4.1 Definition and comparability.....	39

4.4.2	Costs in total.....	40
4.4.3	Cost of each function.....	42
4.4.4	Internal corporate costs.....	42
4.4.5	Corporate costs allocation methodology and drivers	44
4.4.6	Costs at Council level (SLA related cost centres)	44
4.4.7	Prudence and Efficiency.....	44
4.4.8	Comparison between Allconnex Water and Redland City Council.....	45
4.4.9	Top-down benchmarks.....	46
4.4.10	Cost escalations.....	46
4.4.11	Conclusion.....	46
4.5	Employee expenses.....	47
4.5.1	Overview of operating expenditure.....	47
4.5.2	Provided documentation.....	47
4.5.3	Prudence	48
4.5.4	Efficiency.....	48
4.5.5	Comparison against saving targets.....	53
4.5.6	Summary.....	54
4.6	Electricity costs	55
4.6.1	Overview of operating expenditure.....	55
4.6.2	Provided documentation.....	55
4.6.3	Prudence	55
4.6.4	Efficiency.....	56
4.6.5	Summary.....	61
4.7	Other materials and services	62
4.7.1	Overview of operating expenditure.....	62
4.7.2	Provided documentation.....	63
4.7.3	Prudence	63
4.7.4	Efficiency.....	63
4.7.5	Summary.....	67
4.8	Summary assessment of operational expenditure.....	68
4.8.1	Recommended adjustments to operational expenditure.....	69
5.	Capital expenditure.....	71
5.1	Overview of capital expenditure.....	71
5.2	Sample selection.....	75
5.3	Detailed Investigations.....	76
5.3.1	Point Lookout WWTP upgrade.....	76
5.3.2	Sewerage Pump Station No. 6.....	76
5.3.3	Benfer Rd DMA network upgrade	77
5.3.4	Pumps	78
5.3.5	Meter replacement programme.....	78

5.3.6	Redland Mainland WSS network upgrade	79
5.4	Overall sample capital project review summary.....	79
5.5	Asset Lives.....	83
5.5.1	Useful lives for new assets.....	83
5.5.2	Useful lives for new assets for tax purposes.....	84
6.	Conclusions and recommendations.....	86
6.1	Policies and procedures.....	86
6.2	Operating costs.....	86
6.2.1	Recommended adjustments to operational expenditure.....	87
6.3	Capital expenditure	88
6.3.1	Recommended adjustments to capital expenditure	88

Appendix A. Point Lookout WWTP Upgrade

Appendix B. Sewerage Pump Station No. 6

Appendix C. Benfer Rd DMA Network Upgrade

Appendix D. Pumps

Appendix E. Meter Replacement Programme

Appendix F. Redland Mainland WSS network upgrade

Appendix G. Terms of Reference

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 programme. 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 – Prudence 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 programme planning and delivery processes in an overall sense and identify any areas for improvement
- c) Form a view on the prudence 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 prudence 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 prudence and efficiency of the operating costs and capital expenditure of Redland City Council for the July 2013 to June 2015 period.

1.1 Terms of reference

SKM has undertaken the assessment of the prudence 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 Prudence and efficiency

SKM has adopted the following definitions of prudence 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 (e.g. 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 Redland City Council, the Authority and the scope of this review
- **Section 2** provides a brief overview of the information provided by Redland City Council for the purposes of this review
- **Section 3** outlines SKM's review of Redland 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 Redland City Council
- **Section 5** outlines SKM's assessment of capital expenditure incurred/forecast by Redland 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 prudence and efficiency

1.5 Application of assessment

SKM's assessment of prudence and efficiency of capital expenditure applies to Redland City Council's proposed expenditure from 1 July 2013 to 30 June 2015 and to an assessment of prudence 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 as 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 is 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 prudence and efficiency of the operating and capital expenditure programme of Redland City Council with respect to its water and wastewater business only.

2.2 Redland City Council

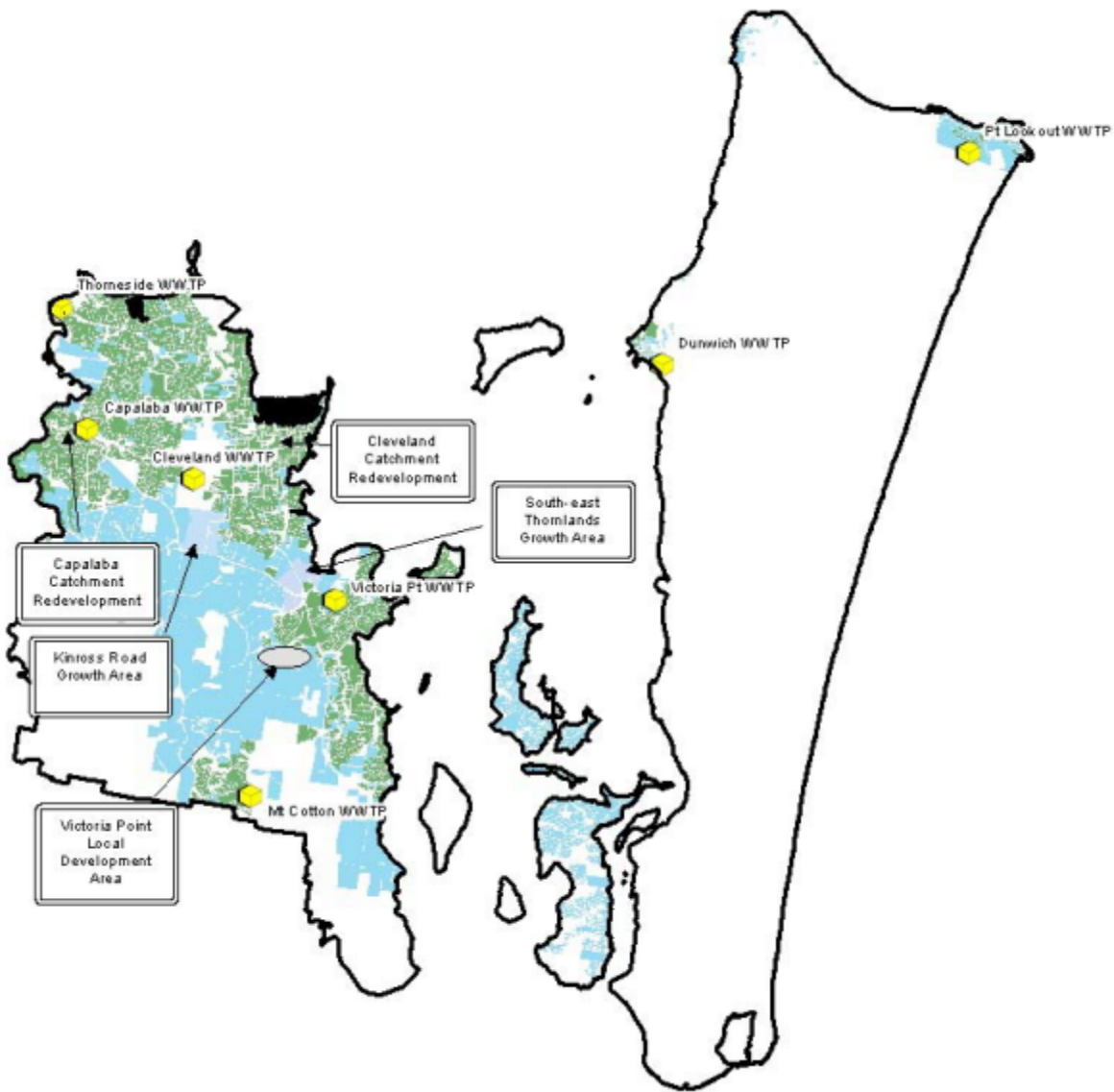
Redland City Council provides water supply and wastewater services to approximately 100,000 customers within an area covering approximately 540 km² (Figure 2-1). Redland City Council service area stretches from Thorneside in the north to Redland Bay in the south and from Sheldon in the west to the bay in the east, including Stradbroke Island (Redland City Council, September 2013).

Water services are provided to 51,413 connections and wastewater services are provided to more than 48,402 connections in the Redland City Council region.

Redland City Council's infrastructure assets include:

- 6 water reservoirs
- 7 water supply pumping stations
- 7 sewage treatment plants
- 137 sewage pumping stations
- 1,145 km of sewerage pipeline
- 1,250 km of water supply pipeline (Redland City Council, September 2013)

Figure 2-1 : Redland 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, Redland 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 Redland 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.

- 1) *“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*
- 2) *the review of policies and procedures should also report on whether the entity:*
 - i. *considers the prudence 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;*
- 3) *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 prudence and efficiency
- Project prioritisation, including prioritisation across programmes of work
- Consideration of the timing of projects and the ability to deliver the capital programme
- A defined review and approvals process, including documentation of this process

This has been codified in the GatewayTM 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 programmes and projects.

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

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

- 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. The chart below illustrates the kind of detail that should be presented, and notes that the 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

	Class 4 Order of Magnitude	Class 3 Pre-Feasibility Study (PFS)	Class 2 Feasibility Study (FS)	Class 1 Definitive Estimate
Methodology	Capacity Factored Equipment 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 investigation. Project screening. Comparison or alternatives, configurations and options.	Economic feasibility of one or more chosen options.	Project approval and basis of securing financing "sustainable" study.	Detailed control, target measurement, change variation, monitor and control of implementation phase.
Basics of Estimate				
Accuracy-Indicative Range	±30% to ±100%	±20% to ±25%	±10% to ±15%	±5% to ±10%
Accuracy Development	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	Construction start
Construction Support	Assumed	Proposed method	Detail support	Final
Construction 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	Started/Preliminary	Preliminary/ Complete	Complete
Utility Flow Diagrams (LFDs)	None	Started/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
Specifications & 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 quantity	Detail quantity	Detail/acutal quantity
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 calculation

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 Equipment 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 investigation. Project screening. Comparison or alternatives, configurations and options.	Economic feasibility of one or more chosen options.	Project approval and basis of securing financing "sustainable" study.	Detailed control, target measurement, 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 Development	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	Construction start
Construction Support	Assumed	Proposed method	Detail support	Final
Construction 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	Started/Preliminary	Preliminary/ Complete	Complete
Utility Flow Diagrams (LFDs)	None	Started/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
Specifications & 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 quantity	Detail quantity	Detail/acutal quantity
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 calculation

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 Redland City Council process

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

- "Redland Water QCA Submission For 6 Selected Review Projects" Rev 1 September 2013
- "Redland City Council Programme and project management framework" Draft Version 0.4 (draft Programme and Project Management Framework)
- "Redland City Council Budget Manual 2013-2014" February 2013
- "Allconnex Water, Water Supply Network Master Plan Northern District" Rev 3 May 2011
- "Project Initiation Document (Light Touch Framework)" PMO1023 (L)
- "Project Initiation Documentation (Full Suite Framework)" PMO1023 (F)
- "Project Mandate Form" PMO1002 V1.0
- "Project Brief (Business Case)" PMO1006 V1.0
- "Project Plan (Full Suite Framework)" PMO1033 (F) v1.0
- "Quality Management Strategy (Full Suite Framework)" PMO1026 (F) v1.0
- "Project Communication Strategy (Full Suite Framework)" PMO1028 (F) V1.0
- "Project Organisation and Responsibilities (High Organisational Change Projects)" PMO1027 V1.0
- "Product Breakdown and Descriptions (High Organisational Change Projects)" PMO 1030 (O) v1.0
- "Stage Plan (High Organisational Change Projects)" PMO1050 (O) V1.0
- "Risk Management Strategy (Full Suite Framework)" PMO1034 (F) v1.0
- "Project Change Request" PMO1025 Version 1.0 13/9/2012
- "Project Highlight Report" PMO1004 v1.0
- "Benefits Realisation Plan (Full Suite Framework)" PMO1036 (F) v1.0
- "End Stage Report" PMO1051 (O) V1.0
- "Post Implementation Review" PMO1022 V1.0
- "Redland Water, Water Netserv Plan PART B OVERVIEW DOCUMENT" Rev 2 June 2013
- "Redland Water, Water Netserv Plan PART B APPENDIX B – Leakage Management Plan" Rev 2 June 2013
- "Redland Water, Water Netserv Plan PART B APPENDIX C – Overflow Management Plan" Rev 2 June 2013
- "Redland Water, Water Netserv Plan PART B APPENDIX D – Drinking Water Quality Management Plan" Rev 2 June 2013
- "Redland Water, Water Netserv Plan PART B APPENDIX E – Total Water Cycle Management Plan" Rev 2 June 2013
- "Redland Water, Water Netserv Plan PART B APPENDIX F – Ecological Sustainability Plan" Rev 2 June 2013

- “Redland Water, Water Netserv Plan PART B APPENDIX G – Trade Waste Management Plan” Rev 2 June 2013
- “Redland Water, Water Netserv Plan PART B APPENDIX H – Recycled Water Management Plan” Rev 2 June 2013

Redland City Council has introduced a Portfolio Management Office (PMO) to provide better governance over the delivery of capital expenditure projects.

Upgrade, expansion and new capital infrastructure, capital corporate and operational programmes and projects require the development of a Project Brief and Financial Summary for submission to the PMO.

The draft Programme and Project Management Framework is integrated with the Council approved Risk Management Framework and with asset management planning. In section 8 of the draft Programme and Project Management Framework, the Project Brief is required to detail why the project “*contributes to Council strategy*”. However, there are no references to the Water NetServ Plan.

This is likely to be because the scope of the draft Programme and Project Management Framework is beyond Redland Water; however, for Redland Water capital expenditure planning does need to be aligned with the draft Water NetServ Plan.

3.2.3 Standardised approach to cost estimating

Redland Water advised in section 2.5 of its Capital Submission that it bases its cost estimating on unit rates provided in appropriate consultants’ reports, which were detailed for the three service areas of Water Supply, Wastewater Collection and Wastewater Treatment.

For Water Supply, section 25 of the document “Allconnex Water, Water Supply Network Master Plan Northern District” sets out a standardised approach to cost estimating for this scope of work.

However, no existing procedural document was provided by Redland Council which sets out its requirement to use a standardised approach to cost estimating across the business. As such, SKM considers that Redland Council’s systems are not in keeping with good practice in this respect.

3.2.4 Prepares a summary document

Section 4.1.1 of the draft Programme and Project Management Framework references the document PMO1006 Project Brief which fulfils the role of development of a summary document. However, as detailed in the next two sub-sections, this document is not considered to be in accordance with good industry practice.

3.2.5 Prepares an implementation strategy

The draft Programme and Project Management Framework, and the documents PMO1033 Project Plan, PMO1023 (L) Project Initiation Document (Light Touch Framework), PMO1023 (F) Project Initiation Documentation (Full Suite Framework) and PMO1006 Project Brief contain many requirements for project planning. However, none of the documents require an implementation strategy to be prepared prior to approval.

3.2.6 Includes a ‘gateway’ review process

Section 2 of the document PMO1033 Project Plan describes three phases of a project as reproduced below.

Project Phase	Deliverables	Approximate Start Date	Approximate Finish Date
Phase1 – Stage One – Planning			
Phase1 – Stage Two – Execution			
Phase1 – Stage Three – End Project Stage			

This simple phasing does not meet the requirements of a 'toll gate' or 'gateway' review process at relevant approval stages that is compliant with good industry practice, such as is depicted in Figure 3-1.

The overall process does contain a benefits realisation assessment (PMO1036 (F) Benefits Realisation Plan (Full Suite Framework) and PMO1022 Post Implementation Review) which is compliant with good industry practice.

3.2.7 Includes a detailed analysis of options for major projects

Section 2.3 of the Project Brief requires assessment of at least three options:

- The preferred option
- A minimal approach option
- The 'Do nothing' option

These options are required to be analysed for "risks, benefits, cost, community impact and perception".

This section of the process is compliant with good industry practice.

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

In relation to asset capitalisation the *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013), Redland City Council states:

"At the completion of the project delivery phase for its infrastructure, RW completes the asset registration phase with the Asset Management Accounting team in the RCC Finance department. This process involves the reconciliation of the project costs and capturing of the projects in the asset register (Maximo).

Once in the asset register, assets form part of the RAB. Asset lives are applied in accordance with the Revaluation Manual."

Based on the *QCA Information Requirements Templates*, Tab 5.6.2, Redland City Council only includes capital expenditure into the RAB once it has been commissioned. SKM notes that the 'Year of Commissioning' and 'Total Capital Expenditure as Commissioned' in the spread sheet (Columns AD and AH) do not align with the capital expenditure as incurred.

In response to SKM's draft report, Redland City Council noted that:

"The date of commissioning will not always be the same date as expenditure incurred as the project may go over multiple years. The commissioning date will be the date of assetisation and the start of depreciation for pricing purposes.

The use of indexation is for existing RAB assets and would not impact future capital works. The indexation rate used in the QTC model for pricing is 2.1% tab RAB assets cell I92."

SKM notes that an asset value is typically included into a utilities regulated asset base (RAB) when the asset, in part or in whole and if in part only the value of the part in question, contributes to the provision of a regulated service.

3.2.9 Compliance

As well as the need to comply with generic legislation applicable to local authorities, Redland Water 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 Regulation 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 Redland Water. As well, 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 the documents supplied with the results shown below.

Documents supplied/accessed	Issues arising from Redland Water's documents
Redland Water, Water Netserv Plan PART B OVERVIEW DOCUMENT	Section 3.5 requires compliance with Water Supply (Safety and Reliability) Act 2008 and Public Health Act (2005) Amendment Regulation (No. 1) (2008).
Redland Water, Water Netserv Plan PART B APPENDIX B – Leakage Management Plan	Specific references to: <ul style="list-style-type: none"> • Water Supply (Safety and Reliability) Act 2008
Redland Water, Water Netserv Plan PART B APPENDIX C – Overflow Management Plan	Specific references to: <ul style="list-style-type: none"> • Environmental Protection Regulation (2008)
Redland Water, Water Netserv Plan PART B APPENDIX D – Drinking Water Quality Management Plan	Specific references to: <ul style="list-style-type: none"> • Australian Drinking Water Quality Guideline, 2011, NHMRC • Drinking Water Quality Management Plan Guideline, 2010, QLD Government • Water Quality and Reporting Guideline for a Drinking Water Service, 2010, QLD Government • Draft Drinking Water Quality Management Plan Review and Audit Guideline, 2012, QLD Government. • Bulk Water Supply Code • Bulk Water Supply Agreement
Redland Water, Water Netserv Plan PART B APPENDIX E – Total Water Cycle Management Plan	Specific references to: <ul style="list-style-type: none"> • Environmental Protection (Water) Policy 2009 under the Queensland Environmental Protection Act 1994 • The statutory guideline under the Environmental Protection (Water) Policy 2009 entitled Total Water Cycle Management Planning Guideline for South-East Queensland

Documents supplied/accessed	Issues arising from Redland Water's documents
	<ul style="list-style-type: none"> • South-East Queensland Water (Distribution and Retail Restructuring) Act 2009 • Sustainable Planning Act 2009 • The Water Supply (Safety and Reliability) Act 2008 and Public Health Act 2005. • South East Queensland Regional Plan 2009-2031 (SEQRP) • • South East Queensland Infrastructure Plan and Program 2008-2031 (SEQIPP) • South East Queensland Water Strategy (SEQWS)
<p>Redland Water, Water Netserv Plan PART B APPENDIX F – Ecological Sustainability Plan</p>	<p>Specific references to:</p> <ul style="list-style-type: none"> • Environmental Protection Act (EPA) (Queensland) 1994 • Environmental Protection Regulation (Queensland) 2008 • Environmental Protection (Waste Management) Regulation 2000 • Environmental Protection (Waste Management) Policy 2000 • Environmental Protection (Water) Policy 2009 • Environmental Protection (Air) Policy 2009 • National Environment Protection Council (Queensland) Act 1994 • DERM Operational Policy Management- for beneficial reuse of biosolids from sewage treatment plants. • National Water Quality Management Strategy, NWQMS (2000) Guidelines for Sewerage Systems Sludge (Biosolids) Management. • The NSW EPA Environmental Guidelines for the Use and Disposal of Biosolids Products, Oct 1997 adopted by DEHP as the QLD standard. • AS4454 Composts, Soil Conditioners and Mulches • Beneficial Reuse Development Approvals • Sustainable Planning Act 2009 • South East Queensland Regional Plan 2009-2031 (SEQRP) • South East Queensland Infrastructure Plan and Program 2008-2031 (SEQIPP) • South East Queensland Water Strategy (SEQWS) • National Wastewater Source Management Guideline 2008 • Standard Plumbing and Drainage Regulation 2003 • ISO14001 - Environmental Management Systems • DEHP WWTP Licences (Development Approvals) and Registration Certificate National Greenhouse and Energy Reporting Act 2007 • Energy Efficiency Opportunities Act 2006 • National Carbon Offset Standard • Securing a Clean Energy Future – The Australian Government's Climate Change Plan • Clean Energy Act 2008
<p>Redland Water, Water Netserv Plan PART B APPENDIX G – Trade Waste Management Plan</p>	<p>Specific references to:</p> <ul style="list-style-type: none"> • Water Supply (Safety and Reliability) Act 2008 • Environmental Protection (Water) Policy 2009 • SEQ Water (Distribution and Retail Restructuring) Act 2009 • Waste Reduction and Recycling Bill 2011

Documents supplied/accessed	Issues arising from Redland Water's documents
	<ul style="list-style-type: none"> • Environmental Protection Act (EPA) (Queensland) 1994 • Environmental Protection Regulation (Queensland) 2008 • Sustainable Planning Act 2009 • National Wastewater Source Management Guideline 2008 • Standard Plumbing and Drainage Regulation 2003
Redland Water, Water Netserv Plan PART B APPENDIX H – Recycled Water Management Plan	<p>Specific references to:</p> <ul style="list-style-type: none"> • Water Supply (Safety and Reliability) Act (2008) • Public Health Amendment Regulation (No. 1) (2008) • Environmental Protection Act 1994 • Plumbing and Drainage Act 2002 • Public Health Act 2005 and Public Health Regulation 2005 • Workplace Health and Safety Act 1995. • Environmental Protection (Water) Policy, 2009 • Parts 1-3, 7&8 of the Queensland Water Recycling Guidelines, (2005) - Parts 4, 5 & 6 have been superseded by the Public Health Regulation, Recycled Water Management Plan and Validation Guidelines and the Water Quality Guidelines for Recycled Water. • Recycled Water Management Plan and Validation Guidelines (2008) • Recycled Water Management Plan Exemption Guidelines (2008) • Water Quality Guidelines for Recycled Water Schemes (2008) • Annual Reporting Guideline for Recycled Water Schemes (2008) • Recycled Water Management Plan Audit Reporting Guideline (2008) • Incident Reporting Guidelines for Recycled Water Schemes (2011) • Manual for Recycled Water Agreements in Queensland (2005)
A sample employee position description	Has a generic requirement to “ <i>satisfy all relevant statutory obligations</i> ”
Draft Programme and Project Management Framework and associated documents	No specific references to legislation or to the Netserv Plan Part B

From the above review SKM considers that the capital expenditure policies and procedures supplied do not meet the compliance requirement as there is no linkage or reference between the Redland City Council's draft Programme and Project Management Framework and associated documents and the Redland Water's Netserv Plan Part B.

3.2.10 Considers regional perspective

The South East Queensland Water (Distribution and Retail Restructuring) Act 2009 outlines the regional requirements for the netserv plans⁴.

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

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

Redland Water advised that it is an active participant “in the “Strategy & Planning Committee” for SEQ formed under the *Bulk Water Supply Code, 1 January 2013*”. To demonstrate this, Redland Water provided a report of an example of cooperation with bulk water supply entities.

However, none of the capital expenditure procedures reviewed has provisions to address the above regional requirements at key decision points. The process therefore does not comply with the requirement to reflect regional priorities.

In response to SKM’s draft report, Redland City Council noted that:

“Redland City Council will incorporate consideration of regional perspectives into major business cases where appropriate. Redland City Council is part of the regional partnership with the other SEQ Water utilities including the Bulk Supplier. Redland City Council were instrumental in ensuring that there was a regional cooperation aspect embedded in the Bulk Supply Code.

However, much of our infrastructure has no regional context due to our geographical location. The only regional issue that we consider could be an issue relates to the effectiveness of disinfection of bulk water. There may also be opportunities for discharge of effluent in the Logan area”.

3.2.11 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 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

Regarding procurement related activities, Redland City Council has advised that it follows the requirements in the *Local Government Regulation 2012*.

SKM noted that the *Local Government Regulation 2012* only specifies requirements on entering certain types/sizes of contractual arrangements, such as medium and large contracts and land related contracts. It does not provide guidance or requirements for purchasing goods/services under \$15,000. Also, it does not

provide guidance on how to manage procurement related complaints. The *Local Government Regulation 2012, Chapter 5 Financial Planning and Accountability, Clause 198 Procurement Policy* requires that:

- 1) *A local government must prepare and adopt a policy about procurement (a procurement policy).*
- 2) *The procurement policy must include details of the principles, including the sound contracting principles that the local government will apply in the financial year for purchasing goods and services.*
- 3) *A local government must review its procurement policy annually.*

Redland City Council has developed a draft procurement policy, a draft procurement manual and a draft procurement controls manual. SKM understands that these documents are, at the time of writing, in draft form and are all subject to internal review with any identified issues to be addressed in 2014.

The procurement thresholds for Redland City Council are as shown in Table 5.

Table 2 : Procurement Strategy

Value of Purchase	Quotation Requirements
Up to \$15,000	One verbal quotation (where no panel arrangements are in place, three quotes must be obtained for work in excess of \$5,000)
\$15,000 - \$150,000	Three written quotations
\$50,000 - \$200,000	Written Quotations to be invited from at least 3 suitable suppliers or contractors on a suitable and applicable pre-qualified register arrangement
Greater than \$200,000	Public Tender must be called

In summary, SKM concludes that, if the above mentioned documents comply with good practice, Redland City Council's procurement practices are, or will shortly be, when the above mentioned documents are made final, adequate and comply with good industry practice and the requirements of the *Local Government Regulation 2012*. However, SKM advises that it has not sighted these documents.

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 that 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 and adjustments to the base year costs on the basis of efficiency.

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

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 increase⁶.

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

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.

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

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

- Budgets are developed from bottom up estimates which are based on FTE number/positions by using Finance One system (an enterprise budgeting tool)
- Labour costs extracted from HR package (Aurion) for previous six months are used as the basis for labour costs (it is also assuming that all new positions will be filled)
- EBA increases are incorporated in labour costs budgets
- Weighted average of CPI rates are used as the cost escalation factors for materials
- Seasonality adjustments are included in budget estimates
- Budgets are reconciled with previous year's figures as a cross check
- SLA costs are developed on high level based on cost estimates previously agreed with Allconnex Water (the SLA costs is currently under review but the results will not be available for the purpose of this Report)

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

- 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 and identification of improvements in operating efficiency
- 3) Development of formal budget preparation procedures, documentation of such and provision of training in their implementation
- 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 in so far as it uses a bottom up development process.

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 Asset Management Part 1 Specification for the optimized management of physical assets.

A similar draft ISO standard is currently being developed, Draft International Standard ISO/DIS 55001 Asset management — Management systems — Requirements. Redland City Council aims to assess current practice within this framework for future iterations of the plans.

SKM has reviewed the following documents against the requirements of PAS 55-1:2008 with the results as shown in the following table:

- "Redland City Council Enterprise Asset and Services Management Strategy" V1.0 Final 24 March 2011 (Strategy)

- “Getting back to basics Long Term Asset and Service Management Plan 2014/15” 6 November 2013
- “Getting back to basics Water Supply Asset and Service Management Plan Appendix A of Redland Water’s ‘Water Netserv Plan’” Rev No 2, 4 June 2013
- “Getting back to basics Wastewater Collection Asset and Service Management Plan Appendix A of Redland Water’s ‘Water Netserv Plan’” Rev No 2, 28 June 2013
- “Getting back to basics Wastewater Treatment Asset and Service Management Plan Appendix A of Redland Water’s ‘Water Netserv Plan’” Rev No 2, 28 June 2013, (collectively, Asset Management Plans)
- “Redland City Council policy document Corporate POL-3118 Enterprise Asset and Services Management” Version 3.1 May 2013 (Policy)

Table 3 : Compliance with PAS 55

PAS 55 Section reference	Asset management system requirements	Issues arising from “Redland City Council Enterprise Asset and Services Management Strategy”, the Policy and associated Asset Management Plans
4.1	General requirements	Compliant
4.2	Asset management policy	The policy is addressed in section 2.1 of the Strategy and in the Policy and is compliant.
4.3	Asset management strategy, objectives and plans	<p>The asset management strategy and planning process is described in section 2.2 of the Strategy. The strategy is at a very high level, for initial implementation. It addresses most of the elements of clause 4.3.1 of PAS 55 and is considered to be compliant.</p> <p>Some service level objectives are addressed in section 2.4 of the Strategy, Levels of Service. Financial impacts are mentioned. However, there is no comprehensive set of service level, financial, safety, compliance and regulatory objectives described or referenced in this document. It is not compliant with good industry practice.</p> <p>The Asset Management Plans reviewed address most of the elements of clause 4.3.3 of PAS 55 and are considered to be compliant.</p> <p>Contingency planning is assumed to be addressed in risk assessments.</p>
4.4	Asset management enablers and controls	<p>Not compliant as follows:</p> <p>Structure - This is addressed in sections 1.2 and 2.3 of the Strategy, however its treatment is too preliminary to be considered compliant.</p> <p>Outsourcing - Not applicable</p> <p>Training, awareness and competence – The requirements of clause 4.4.3 of PAS 55 are addressed in section 2.6 of the Strategy; however their treatment is too preliminary to be considered compliant.</p> <p>Communication, participation and consultation – These requirements of clause 4.4.4 of PAS 55 are not addressed or referenced adequately in the documents.</p> <p>Documentation – The requirements of clause 4.4.5 of PAS 55 are not addressed or referenced adequately in the documents.</p> <p>Information – The strategies outlined in section 2.5 of the Strategy, Data and Systems will address the good operating practice requirements of clause 4.4.6 of PAS 55 in time.</p> <p>Risk management – Risk management systems are frequently referenced in the Strategy and these are considered likely to meet the requirements of clause 4.4.7 of PAS 55.</p> <p>Compliance - The requirements of clause 4.4.8 of PAS 55 are not addressed or referenced adequately in the Strategy.</p> <p>Change – Development, improvement and change is frequently addressed in the Strategy. It is considered to be compliant with the requirements of clause 4.4.9 of PAS 55.</p>
4.5	Implementation of asset management plan(s)	This is addressed in section 2.2.3 of the Strategy and is considered to be compliant.
4.6	Performance assessment and improvement	This is addressed in section 2.7 of the Strategy. However, its treatment is too preliminary to be considered compliant.

PAS 55 Section reference	Asset management system requirements	Issues arising from “Redland City Council Enterprise Asset and Services Management Strategy”, the Policy and associated Asset Management Plans
4.7	Management review	These requirements are not addressed or referenced adequately in the Strategy.

Alignment with one of the above standards for asset management (ie, PAS 55 or ISO 55001) is considered by SKM to be essential to demonstrate compliance with good operating practice. Based on the documents supplied, SKM is of the opinion that the asset management system is not in accordance with good industry practice.

In response to SKM’s draft report, Redland City Council noted that:

“Redland City Council’s Asset Management Process is based on the IPWEA International Infrastructure Management Manual (IIMM) International Edition 2011. This methodology was endorsed as appropriate by the Department of Local Government and Planning in the Asset Management Advancement Program 2011-12 Guideline and Redland City Council supports this methodology as a reflection of best practice within the Local Government sector. The ISO 55000 AM Standard is expected for release in early 2014 and RCC will aim assess current practice within this framework for future iterations of the plans.

Consistent with this methodology, the current plans have been developed with the aim of delivering ‘core’ level practices, with the implementation of improvement items leading towards a more robust ‘intermediate’ of ‘advanced’ position. Redland City Council is committed to continuous improvement in this area.

The Long Term Asset Management Plan (LTASMP) is currently being developed and will update some elements of the current strategy. The maturity analysis and associated actions has targeted the areas identified by SKM”.

Whilst SKM acknowledges that the above process may be appropriate for local authority activities they may not necessarily be appropriate for water utility activities. However, SKM is also cognisance of the fact that many local authorities (both in Australia and internationally) operate water utilities.

3.3.4 Planned improvements to processes

The Strategy, dated 2011, has a comprehensive programme of 30 planned improvements to its asset management processes across the elements detailed below.

Table 4 : Summary of Asset Management Improvement Activities.

Key element	Description	Number of actions
Enterprise asset and services management policy	The statement of intent for delivery of asset and services management outcomes which are consistent with the provisions of the Corporate Plan and best appropriate practice.	Three
Strategy and planning	The steps to develop and improve asset and services management to accord with best practice applicable for Redland City Council.	Seven
Governance and management	Defining roles, responsibilities and accountabilities for service and asset management and the means to deliver the objectives of the Asset and Services Management Plans to ensure a complete program on behalf of the organisation and the community. Establish a means of monitoring and driving improvement initiatives.	Six
Levels of service	Defining Levels of Service enables Council to establish the level and cost of services provided to community. Once cost of existing service standards is understood, consultation mechanisms can be used to fine-tune the service delivery to cost effective and sustainable levels while undertaking useful discourse with the community.	Three

Key element	Description	Number of actions
Data and systems	To ensure the efficient and effective management of data and information on the assets that supports the service provision. Consistent processes applicable across the whole organisation. Information provided on assets and their performance is accurate and up to date.	Six
Skills and processes	Having appropriately skilled and trained staff and Councillors provides for more effective management of services and assets and enables a shared understanding of the issues.	Three
Evaluation	An evaluation framework is used to measure the incremental improvements in policy, processes and performance relating to the implementation of an Enterprise Asset and Services Management Philosophy.	Two

3.4 Conclusion

The following table summarises the conclusions drawn from SKM's review of Redland Council's policies and procedures

Table 5 : Policies and Procedures Review Summary.

Requirements	Capital expenditure policies and procedures	Operating expenditure policies and procedures
Has a standardised approach to cost estimating	Not compliant	Not applicable
A summary document is prepared	Not compliant	Not applicable
An implementation strategy is prepared	Not compliant	Not applicable
Has a gateway review process	Not compliant	Not applicable
Includes detailed analysis of options for major projects	Compliant and robust	Not applicable
Has a benefits realisation assessment process	Compliant and robust	Not applicable
Includes requirements to comply with relevant legislation	Not compliant	Not compliant
Includes requirements to take account of regional issues.	Not compliant	Not compliant
Only commissioned capital expenditure from 1 July 2010 is included in the RAB	Compliant	Not applicable
Overall capital expenditure programme and delivery processes	Not compliant	Not applicable
Asset management in accordance with good industry practice	Not compliant	Not compliant
Procurement in accordance with good industry practice	Not compliant	Not compliant
Budget formation in accordance with good industry practice	Not compliant	Compliant

4. Operating expenditure

4.1 Overview of operating expenditure

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

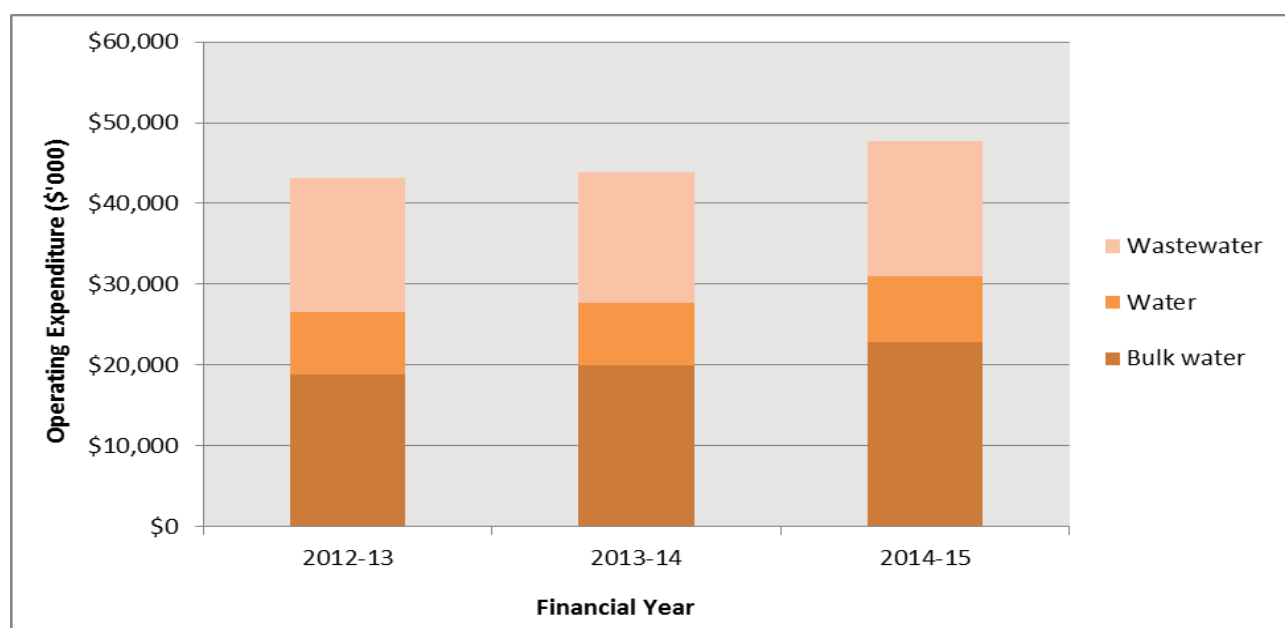
Over the price monitoring period, Redland City Council predicts that its total operating expenditure (excluding bulk water charges) will be \$48.9 million. The total expenditure (excluding bulk water costs) for 2013-14 is \$282,100 less than expenditure in 2012-13, whilst 2014-15 forecasted expenditure is \$976,800 higher than 2013-14.

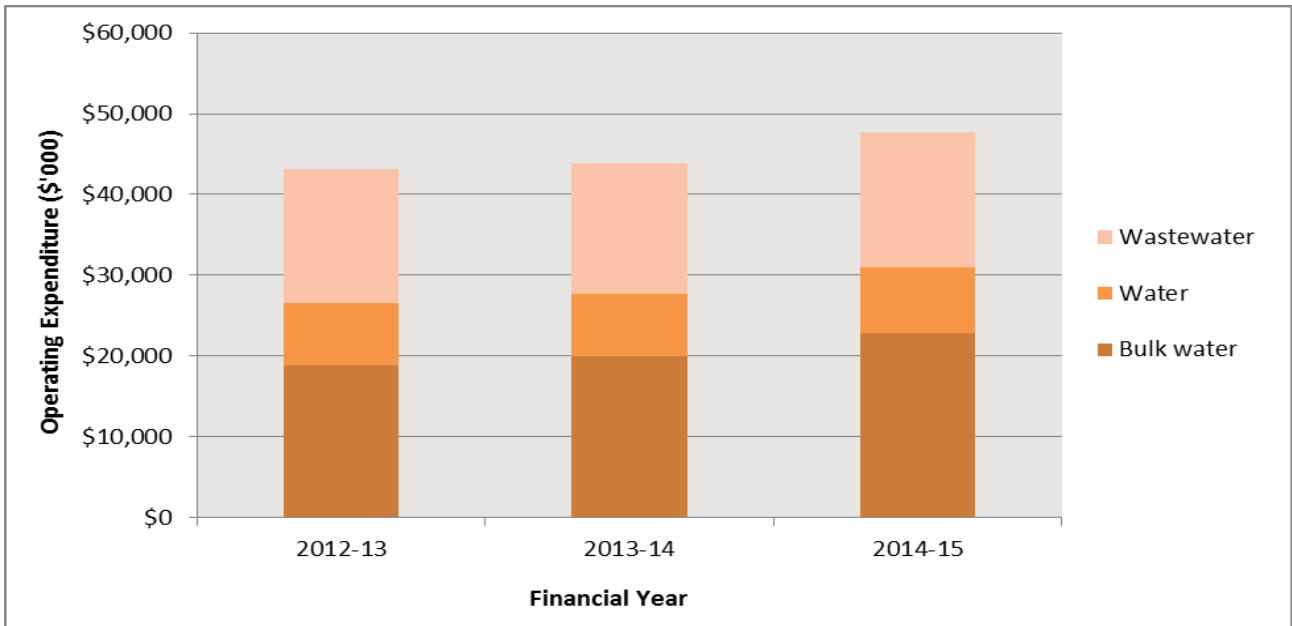
Table 6 : Total operating expenditure (nominal \$)

Service	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Bulk water	18,858.1	19,905.7	22,846.3
Water	7,711.3	7,765.0	8,114.8
Wastewater	16,529.4	16,193.7	16,820.7
Non-regulated	0.0	0.0	0.0
Total	43,098.9	43,864.4	47,781.8
Total less Bulk water	24,240.8	23,958.7	24,935.5

Figure 4-1 below provides an overview of the operating expenditure as detailed by Redland City Council in its Information Template submission to the Authority. Comparing the 2014-15 forecasted expenditure with the 2012-13 reveals that the water services operating expenditure (excluding bulk water costs) increases by 5%; the wastewater services operating expenditure increases by 2% whilst non-regulated operating expenditure remains at \$0 each year. 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 21%. The primary driver for the variance between the 2013-14 and 2014-15 forecast expenditures is the increase in the cost of bulk water, which increases by \$2.9 million.

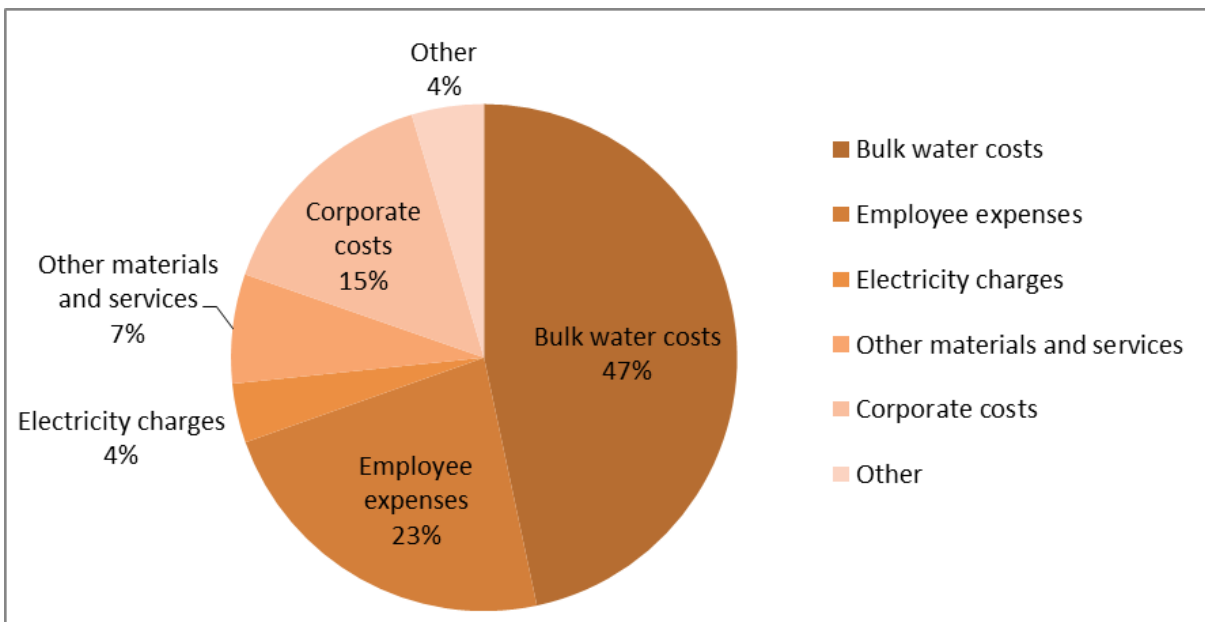
Figure 4-1 : Total operating expenditure

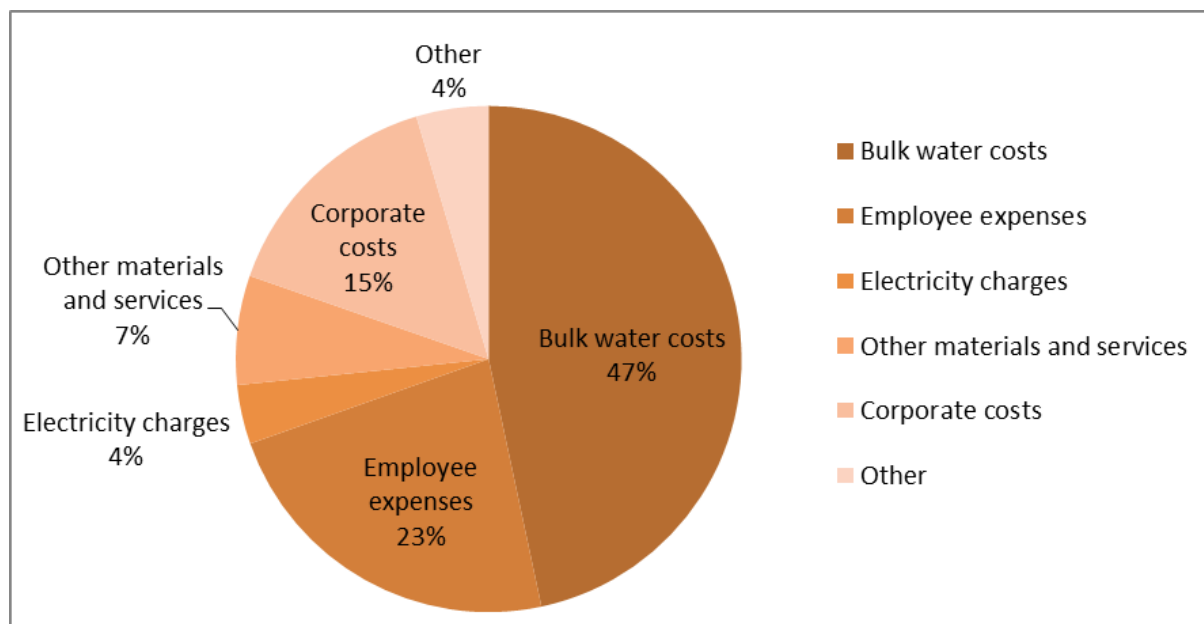




Redland City Council has an operating expenditure budget of approximately \$91.6 million (including bulk water charges) for the price monitoring period (financial years 2013-14 and 2014-15). Figure 4-2 charts the breakdown of the operating expenditure budget in terms of the main cost categories. The cost of purchasing bulk water is the main operating expenditure item.

Figure 4-2 : Total operating expenditure for 2013-15 including non-regulated costs





The following tables (Table 7 and Table 8) contain the cost breakdown of water and wastewater services.

Table 7 : Water operating expenditure 2012-2015 (nominal \$)

Item	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Bulk water costs	18,858.1	19,905.7	22,846.3
Employee expenses	2,067.8	2,203.8	2,258.9
Contractor expenses	953.3	1,257.1	1,283.5
GSL Payments			
Electricity charges	11.9	27.8	28.4
Sludge handling costs			
Chemicals costs	0.0	0.0	0.0
Other materials and services	1,230.7	1,124.7	806.4
Licence or regulatory fees			
Corporate costs	3,155.2	3,126.8	3,712.3
Non recurrent costs	112.4	0.0	0.0
Indirect taxes	180.0	24.8	25.3
Total water operating expenses	26569.4	27670.7	30961.1

Table 8 : Wastewater operating expenditure 2012-15 (nominal \$)

Item	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Bulk water costs			
Employee expenses	3,498.7	3,650.3	3,741.6
Contractor expenses	3,237.9	3,272.8	3,341.5
GSL Payments			
Electricity charges	1,809.5	1,687.9	1,723.4
Sludge handling costs	1,353.6	1,427.0	1,456.9
Chemicals costs	508.9	510.3	521.0
Other materials and services	1,678.4	2,078.8	2,381.1

Item	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Licence or regulatory fees	52.2	40.8	41.6
Corporate costs	3,582.3	3,434.4	3,520.3
Non recurrent costs	547.9	0.0	0.0
Indirect taxes	260.0	91.5	93.4
Total wastewater operating expenses	16529.4	16193.7	16820.7

4.2 Benchmarking

4.2.1 Comparability of data

SKM has completed high level benchmarking of Redland City Council's operating and capital expenditure for its water business against other water utilities located in Australia. Redland City Council's benchmarked performance against other utilities is discussed below. Due to the high level of this assessment and data availability, savings cannot be identified directly from this benchmarking process. However, the process does enable the identification of areas worthy of further analysis for cost saving potential. Inherent differences between water utilities affect the validity of benchmarking Redland City Council's operating expenditure against other utilities unless the benchmark data is normalised to remove the impact (at least in part) of these differences. 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, levels of service and regulatory requirements are just some of the factors which influence operating expenditure.

Operating expenditure for Redland City Council was obtained from 2013-14 Information Templates. 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 Redland 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. Shoalhaven City Council, North East Water, Power and Water – Darwin, Western Water and Goulbourn Valley Water all have similar number of connections to Redland City Council for water services. Figure 4-4 shows Toowoomba Regional Council, Goulbourn Valley Water, Western Water, Power and Water – Darwin and Ben Lomond Water have similar number of wastewater connections to Redland City Council. Australian benchmarking will focus on these utilities as the main comparators to Redland City Council.

Figure 4-3 : Number of water connections per utility

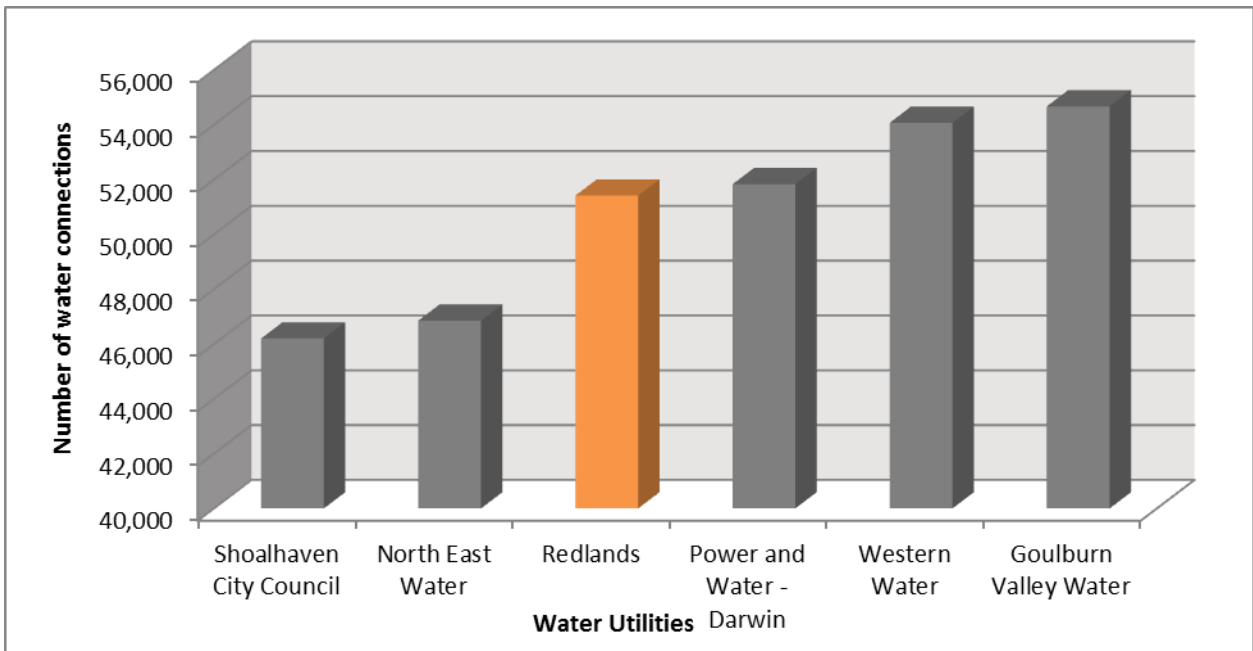
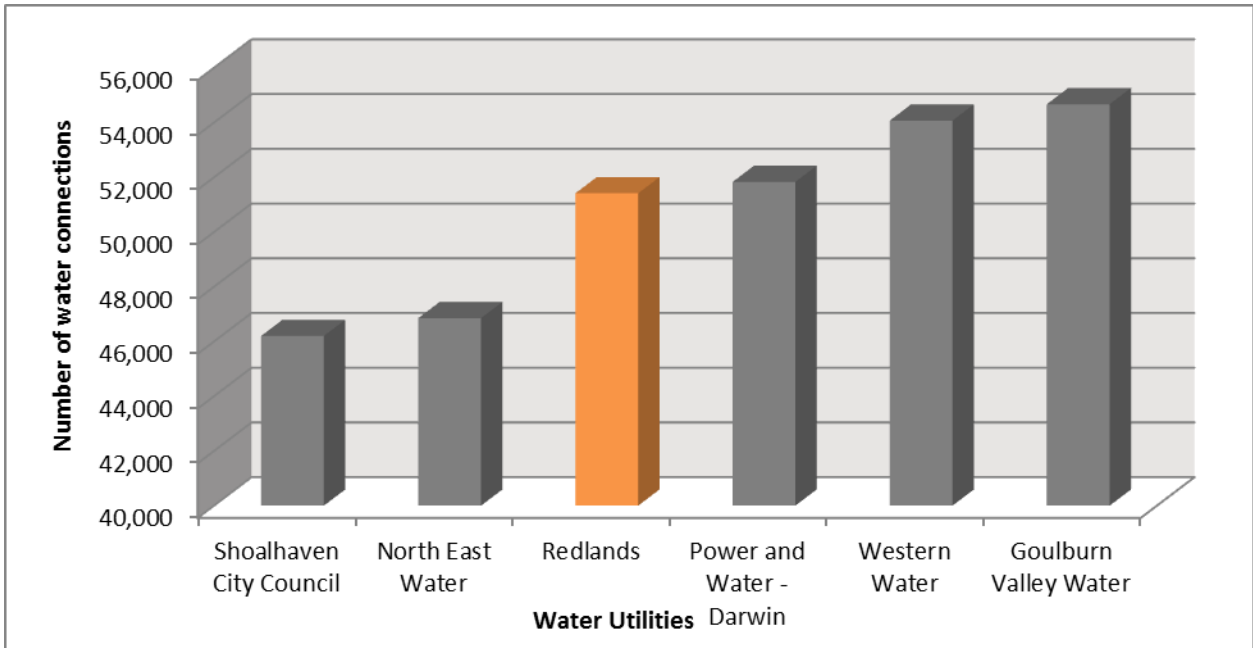
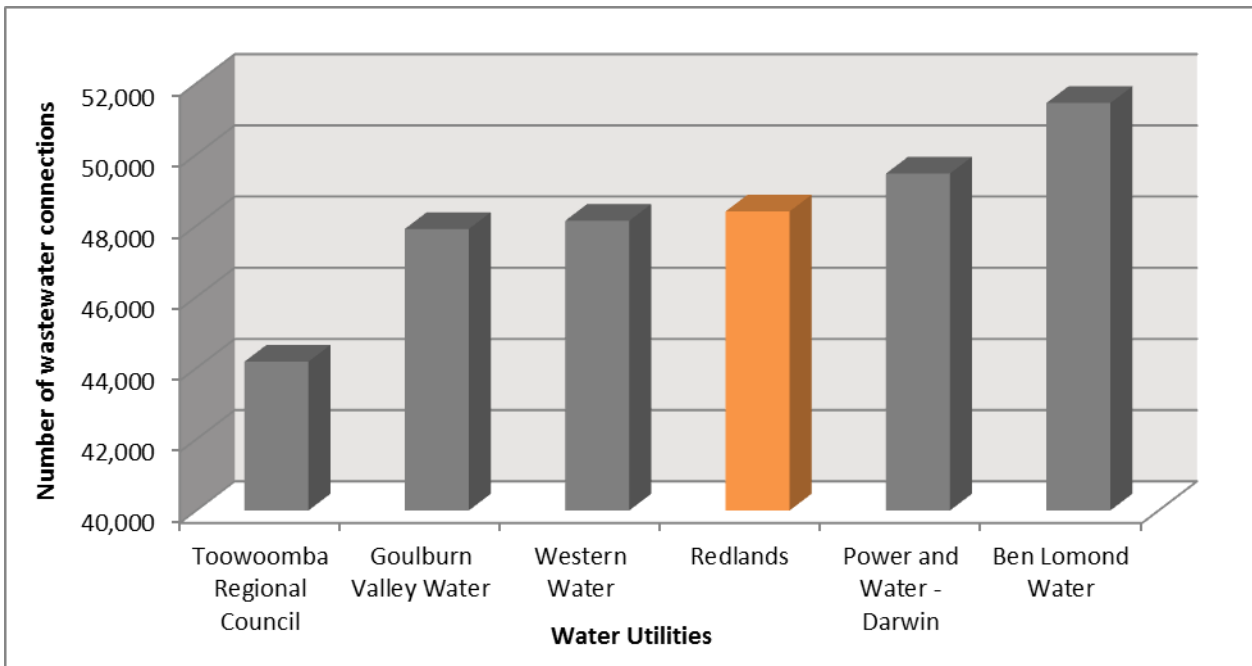
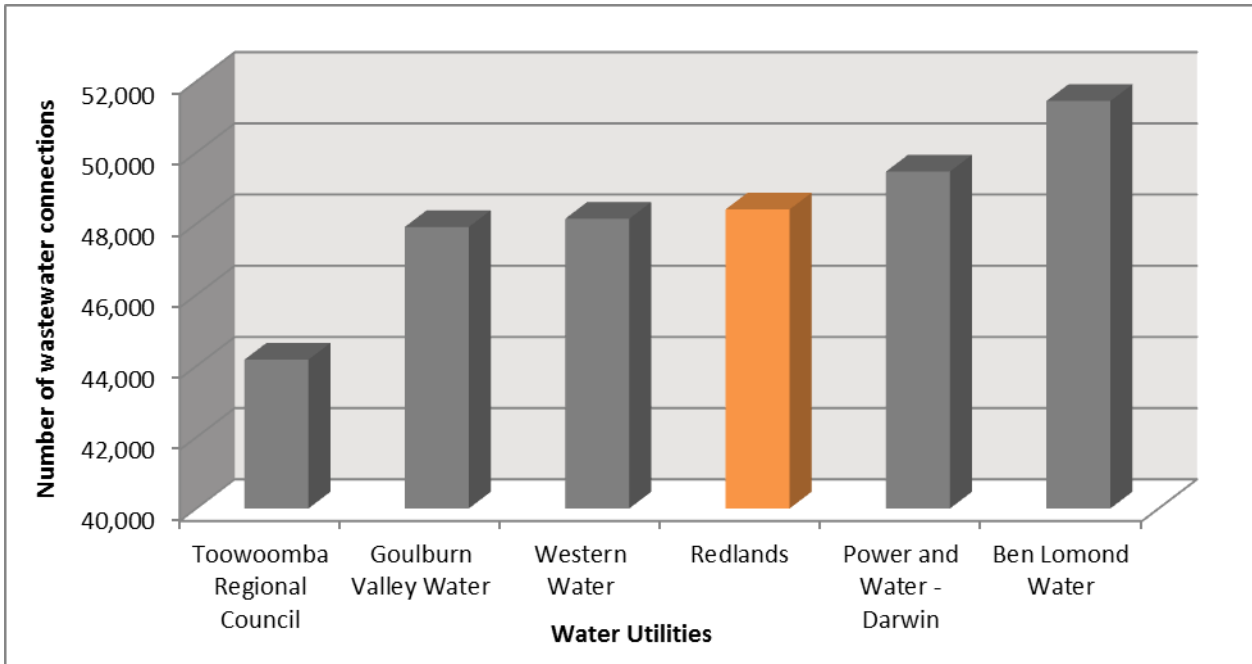


Figure 4-4 : Number of wastewater connections per utility



4.2.2 Australian Benchmarking

A high level comparison of operating expenditure for Redland City Council against other comparable Australian utilities for water and wastewater is shown below in Table 9 and Table 10.

Table 9 : Redland City Council aggregate cost metrics for comparable utilities for water services

Metric	Water metrics	Redland s City Council	Shoalhaven City Council	Power and Water - Darwin	Goulburn Valley Water	North East Water	Western Water
Customers	Total OPEX (\$) per total connection	439	378	549	415	431	584
	Water OPEX (\$) per water connection	538	294	564	403	458	651
Network size	Total OPEX (\$) per km of total pipeline	18,315	12,404	26,516	14,120	13,797	19,871
	Water OPEX (\$) per km of water pipeline	22,137	9,122	21,534	12,291	12,971	18,970

Table 10 : Redland City Council aggregate cost metrics for comparable utilities for wastewater services

Metric	Wastewater metrics	Redland City Council	Power and Water - Darwin	Goulburn Valley Water	Western Water	Ben Lomond Water	Toowoomba Regional Council
Customers	Total OPEX (\$) per total connection	439	524	396	557	357	85
	Wastewater OPEX (\$) per wastewater connection	335	509	410	485	406	109
Network size	Total OPEX (\$) per km of total pipeline	18,315	25,287	13,466	18,950	11,561	3,312
	Wastewater OPEX (\$) per km of wastewater pipeline	14,143	33,994	16,015	20,337	14,101	4,439

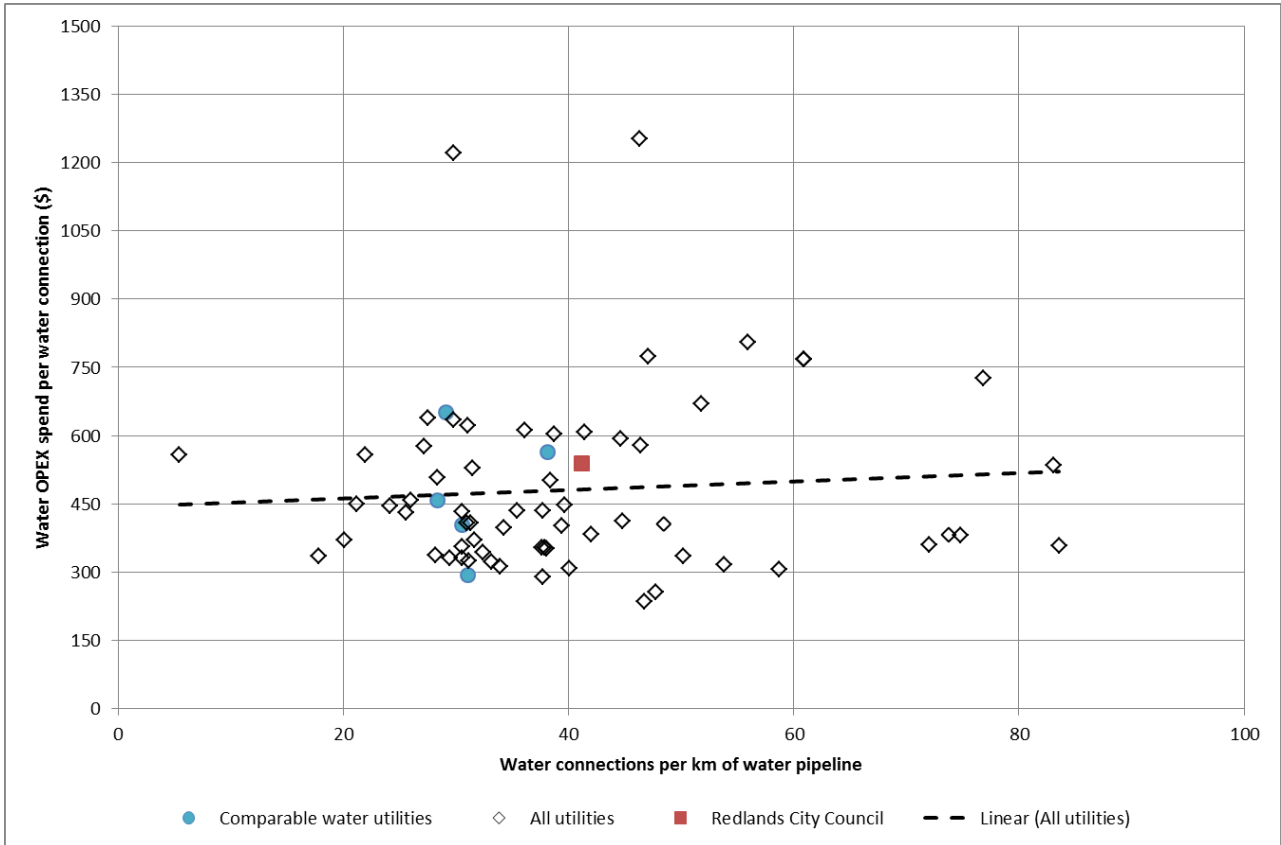
Table 9 shows that Redland City Council's operating expenditure is similar to the comparable Australian water utilities when compared against the number of water connections however Redland City Council has a higher water operating expenditure compared to kilometres of water pipeline. Table 10 shows Redland City Council's wastewater operating expenditure per wastewater connection is lower than all comparable utilities except Toowoomba Regional Council. Redland City Council's operating expenditure per kilometre of wastewater pipeline is 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 Redland 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 shown below, compares 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 are shown on the graph as blue circles. The red square shows Redland City Council's operating expenditure in relation to connections per kilometre of pipeline. The green triangles show the other water utilities operating in SEQ and, in part, demonstrate 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 of non-SEQ water utilities has not been found readily for comparison.

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



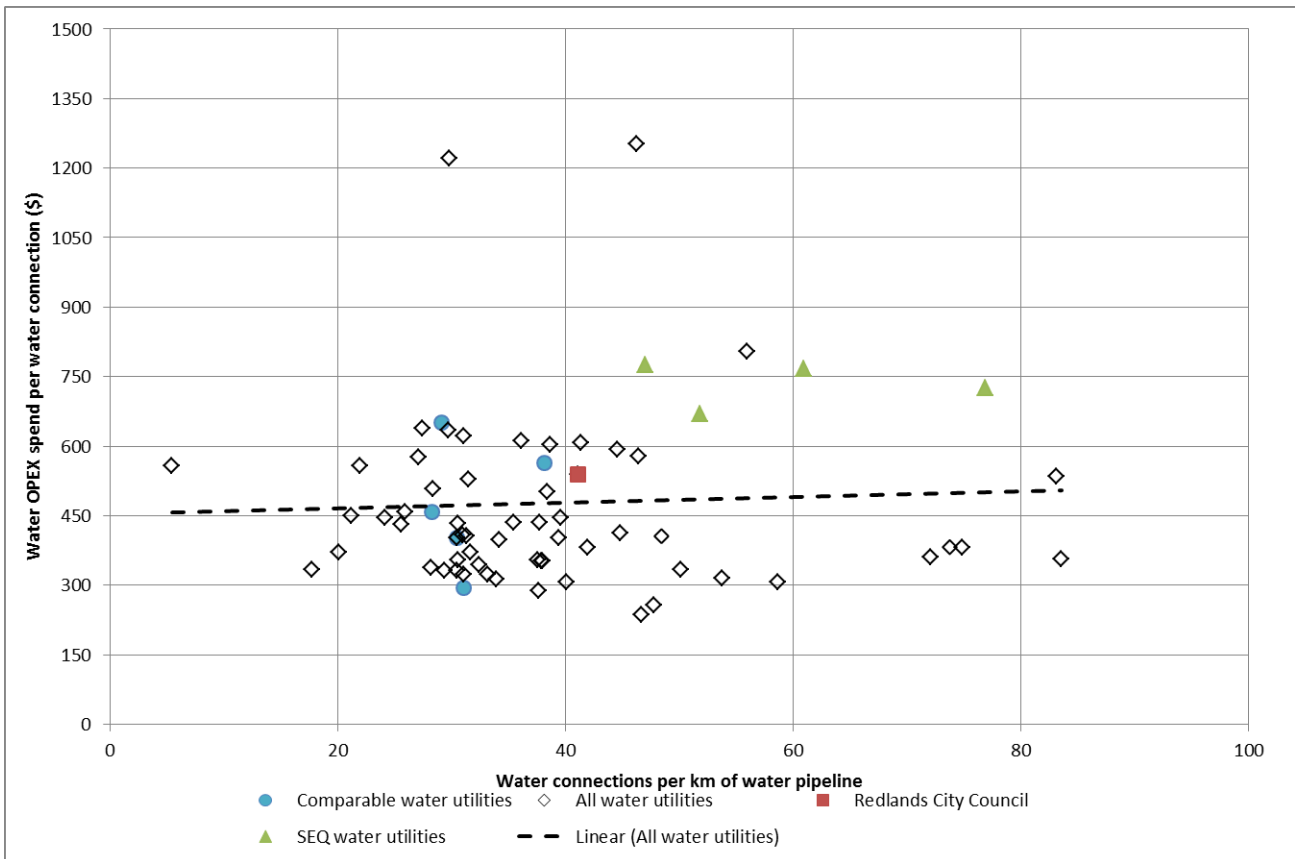
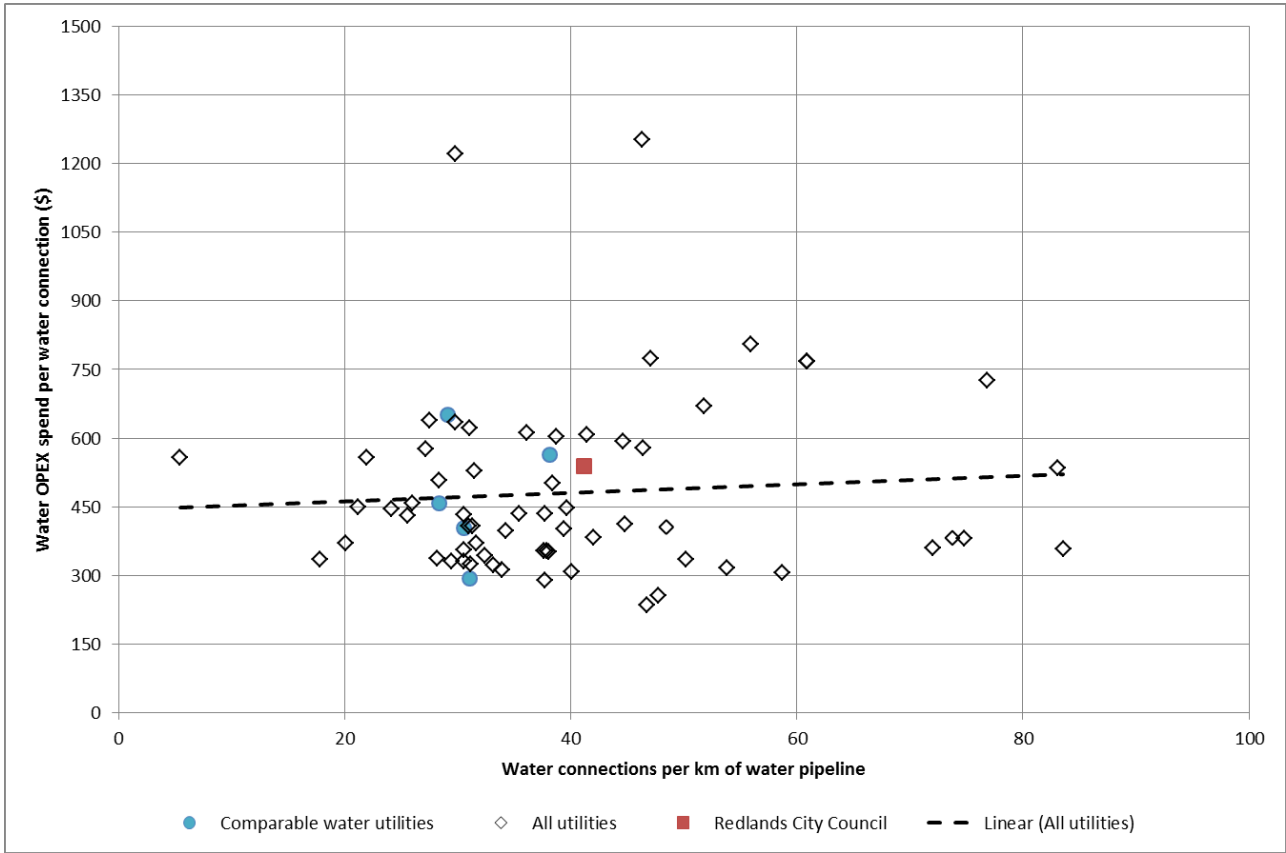
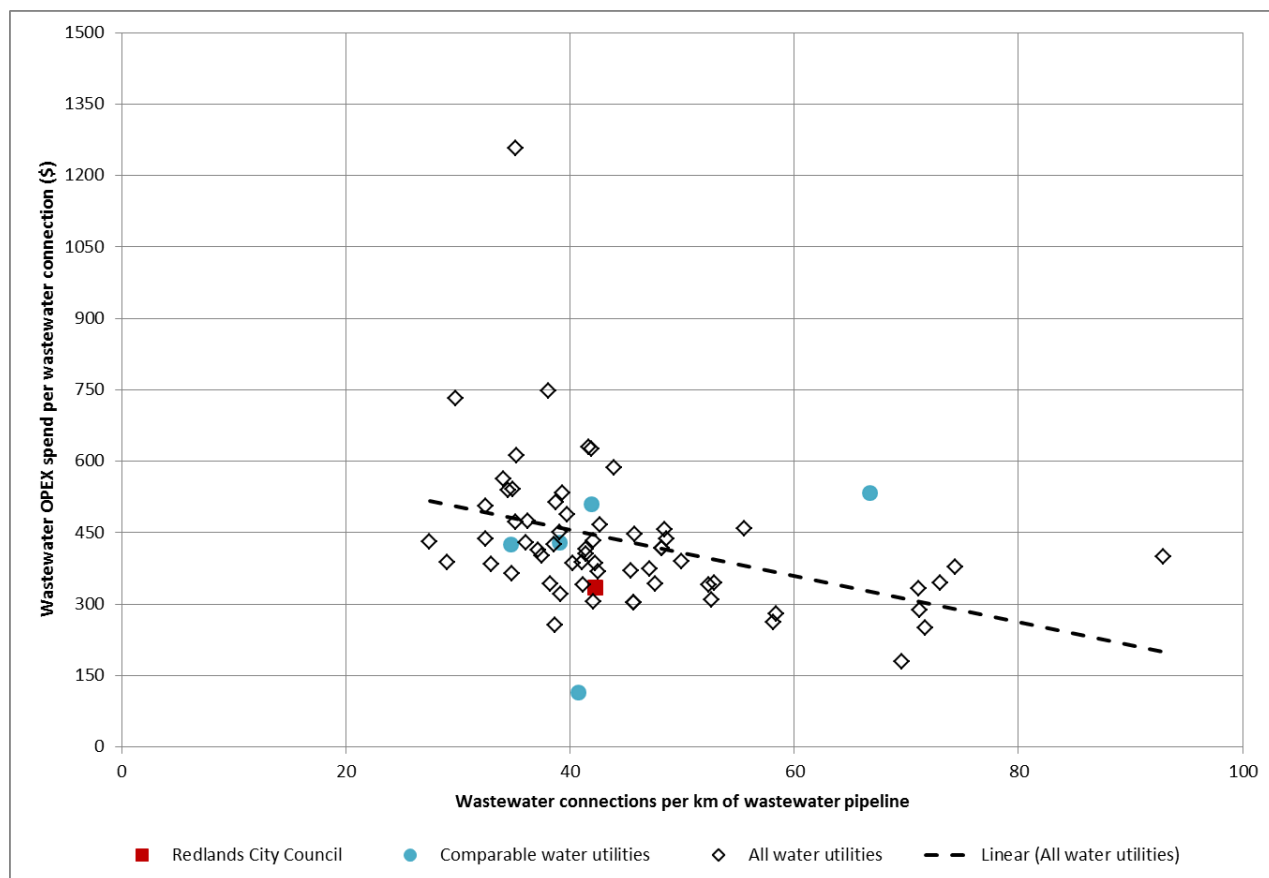


Figure 4-5 shows that Redland City Council has a slightly higher operating expenditure per water connection per km of pipeline than the Australian benchmark and a similar operating expenditure per water connection per km of pipeline to that of comparable water utilities, previously identified in Table 9, Redland City Council compares favourably against water utilities operating in SEQ (green triangles) which all have higher connection densities and operating expenditure. This is considered to be likely to be as a result of high bulk water charges for the SEQ region.

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



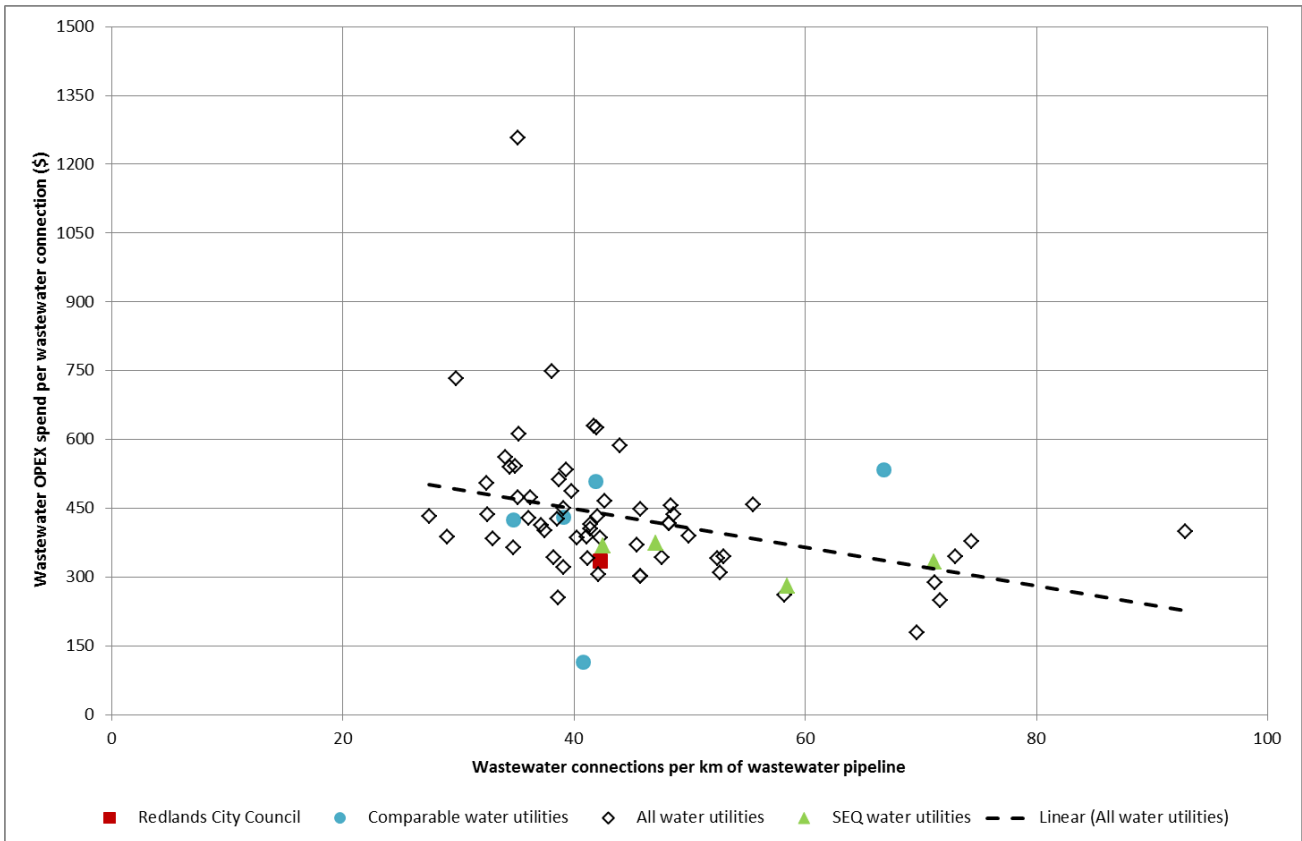
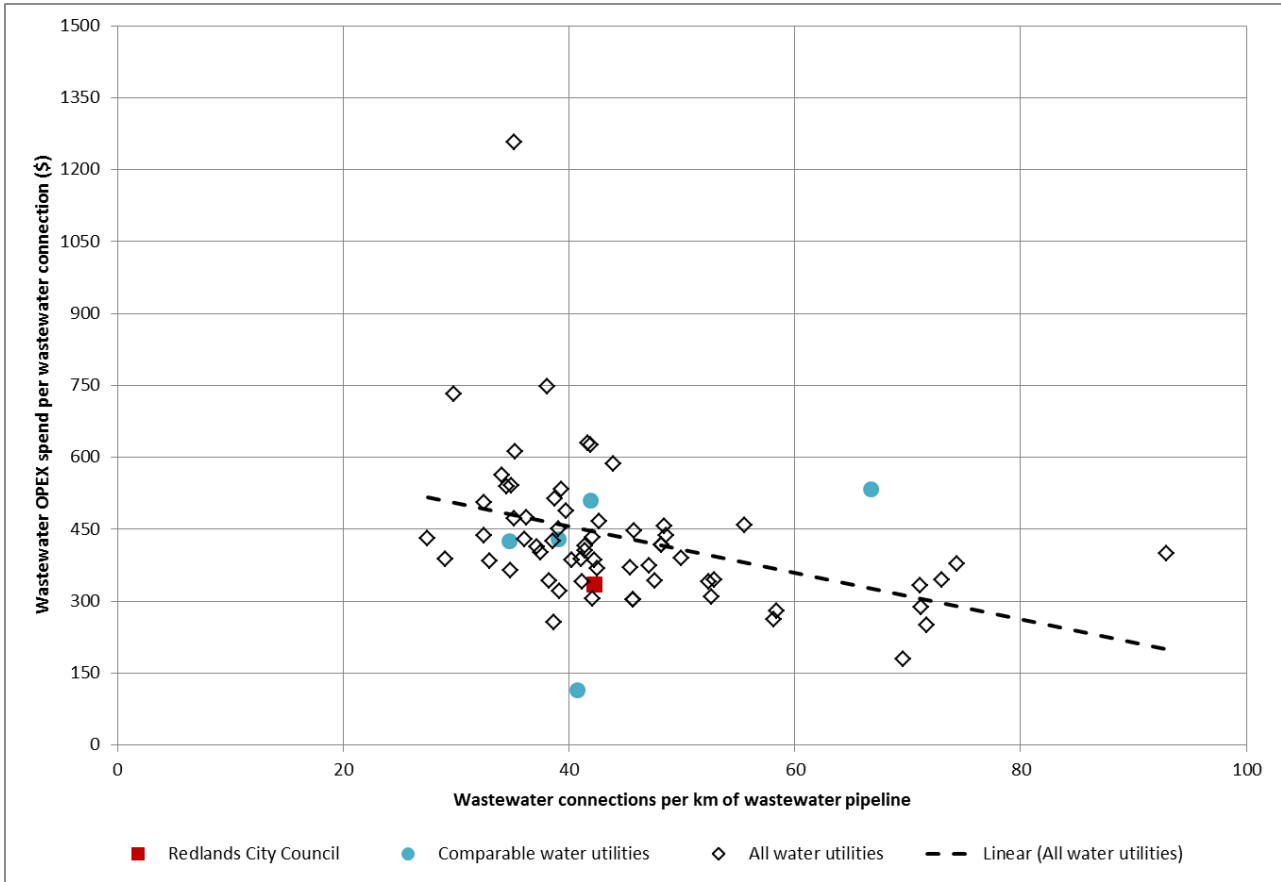


Figure 4-6 shows Redland City Council has a similar wastewater connection density to comparable water and other Australian utilities. Logan City Council also has lower expenditure per wastewater connection per km of wastewater pipe than most of the comparable utilities and is operating below the Australian benchmark. The green triangles on the graph show other water utilities operating in SEQ have comparable wastewater operating expenditure to Redland City Council.

SKM concludes from this high level benchmarking exercise that Redland City Council's operating expenditure is above the Australian benchmark for water utilities whilst considerable lower than other SEQ water utilities. However, wastewater operating expenditure of Redland City Council is below Australian benchmarks and is comparable to other SEQ water utilities. SKM notes that bulk water charges in the SEQ region are likely to attribute to the higher operating expenditure for Redland City Council's water services.

4.3 Sample selection

In undertaking a review of prudence 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 is excluded from our sample as this cost is determined by other agencies and are not within the control of Redland City Council. Our sample accounts for 87% of the total 2012-13 operating expenditure (less bulk water) for 2012-13 and more than 91% over the forecast period (2013-14 and 2014-15).

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

Category	Service	Operating Expenditure (\$'000)		
		2012-13	2013-14	2014-15
Corporate costs	Drinking water	3,169.0	3,126.8	3,204.9
	Wastewater via sewer	3,582.3	3,434.4	3,520.3
	Total	6,751.4	6,561.2	6,725.2
Employee costs	Drinking water	2,067.8	2,203.8	2,258.9
	Wastewater via sewer	3,498.7	3,650.3	3,741.6
	Total	5,566.5	5,854.1	6,000.4
Contractor costs	Drinking water	953.3	1,257.1	1,283.5
	Wastewater via sewer	3,237.9	3,272.8	3,341.5
	Total	4,191.2	4,529.9	4,625.0
Electricity costs	Drinking water	11.9	27.8	28.4
	Wastewater via sewer	1,456.9	1,687.9	1,723.4
	Total	1,468.7	1,715.7	1,751.7
Other Materials & Services	Drinking water	929.6	1,124.7	1,313.8
	Wastewater via sewer	1,341.4	2,078.8	2,381.1
	Total	2,271.0	3,203.5	3,694.8
Total Sample		20,248.8	21,864.4	22,797.2
Total operating expenditure, less bulk water		23,263.8	23,958.7	24,935.5
Percentage		87.0%	91.3%	91.4%

Source: 2013/15 Information Template

During the course of SKM's review and discussion with Redland City Council, a revision to the Council's operating expenditure was provided. The revision made changes to Redland City Council's Corporate Costs, Electricity Costs and Other Materials and Services expenditure. The changes are shown in Table 12.

Table 12 : Revised Operating expenditure for Redland City Council Water and Wastewater Services

Category	Service	Operating Expenditure (\$'000)		
		2012-13	2013-14	2014-15
Corporate costs	Drinking water	3,155.2	3,126.8	3,712.3
	Wastewater via sewer	3,582.3	3,434.4	3,520.3
	Total	6,737.6	6,561.2	7,232.6
Electricity costs	Drinking water	11.9	27.8	28.4
	Wastewater via sewer	1,809.5	1,687.9	1,723.4
	Total	1,821.4	1,715.7	1,751.7
Other Materials & Services	Drinking water	1,230.7	1,124.7	806.4
	Wastewater via sewer	1,678.4	2,078.8	2,381.1
	Total	2,909.1	3,203.5	3,187.5

4.4 Corporate costs

This section analyses Redland City Council'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.

On 29th October 2013, Redland City Council has amended its corporate costs after the submission of the *Information Template* - the amendment made is shown in Table 13.

Table 13: Amended Corporate Costs

	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Corporate Costs in Information Template	6,751	6,561	6,725
Corporate Costs after Amendment	6,738	7,033	7,233
Variance	- 14	472	507

SKM has noted that on 22nd November 2013, Redland City Council has amended its 2013-14 corporate costs back to \$6,561,000 (reduction of \$472,000), but no changes were made to the 2012-13 and 2014-15 figures. As the Council did not provide information on which cost centres or cost categories the reduction is associated with, SKM has not been able to adjust the following analysis on corporate costs to reflect this amendment.

4.4.1 Definition and comparability

According to the Redland City Council, its corporate costs have two components: SLA costs allocated from the Council's internal service providers, and corporate costs incurred within Redland Water.

SLA costs

The majority of Redland Water's corporate functions are carried out by Redland City Council. The corporate services provided by the Council are based on a Service Level Agreement (SLA) signed by the Allconnex Water and the Redland City Council in 2010. The SLA has not been updated after Redland Water returned to the Council in July 2012, and is currently under review.

The corporate services provided by Redland City Council include:

- Customer Service, Marketing and Branding
- Human Resources and Industrial Relations
- ICT, Billing and Information Management
- Finance and Corporate Services
- Corporate Asset Management
- Fleet
- Parks (costs in relation to mowing activities at the treatment plants)

However, some of these services do not align with the Authority's definition of corporate costs, such as Fleet and Parks. SKM considers that, to better align with the Authority's definition, the fleet costs not incurred by corporate staff and the parks related charges should be excluded from corporate costs and included instead in direct operating costs. Accordingly, adjustments have been made as shown in Table 14.

Table 14: Adjustments to Corporate Costs

	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Corporate Costs Submitted by Redland City Council	6,738	7,033	7,233
Less: SLA Parks	19	19	20
Less: Fleet Expense (Direct Operating Related)	626	626	645
Adjusted Corporate Costs	6,093	6,388	6,568

Internal corporate costs

The corporate services performed internally by the Redland Water include:

- Laboratory Operations
- General Manager
- Infrastructure and Planning
- Development Assessment
- Customer Contact Centre
- Customer Information Reporting
- DT Unit allocation (the Management of operations, distribution and treatment)
- Environmental Management

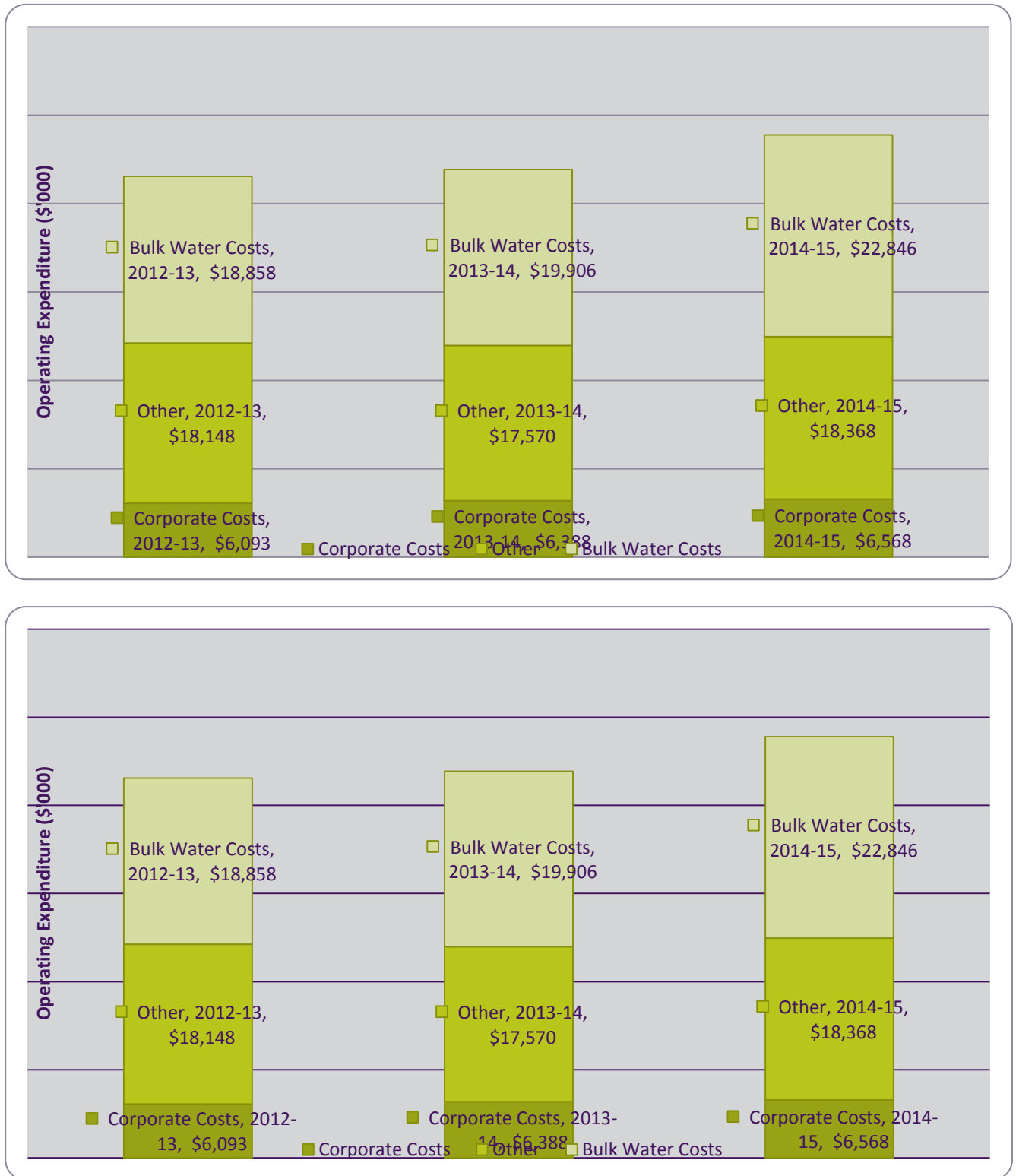
The costs associated with these internal corporate services have been included in its corporate costs. SKM has noted that this approach differs from the one adopted by the Gold Coast City Council and Logan City Council. Both of them have only included SLA costs as their corporate costs.

SKM analysed the corporate cost figures provided to the Authority (adjusted as shown in Table 14) noting that they included both SLA costs and internal corporate costs.

4.4.2 Costs in total

Corporate costs comprised 15.7% of Redland City Council's operating costs in 2012-13, and represent 27.8% 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 corporate costs are shown in Table 15.

Table 15: Changes in Corporate Costs

	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Corporate Costs	6,093	6,388	6,568
Total Operating Costs	43,099	43,864	47,782
% of Total Operating Costs	14.1	14.6	13.7
% of Total Operating Costs less Bulk Water Costs	25.1	26.7	26.3
Increase over previous year	-	295	180
% Increase over previous year	-	4.8	2.8

The entity allocated its corporate costs to each of the regulated services: water and wastewater, and did not allocate any corporate costs to non-regulated services.

4.4.3 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)
SLA Costs	Finance	1,672	1,723	1,774
	Human Resources	256	263	271
	IT Expenses	874	900	927
	Fleet Expense (Corporate related)	52	41	42
	Marketing & Communication	18	19	19
	Corporate Asset Management	455	468	482
	Others Internal Expenses	66	-13	-13
Total SLA Costs		3,392	3,402	3,504
Internal	Corporate Labour Costs	1,972	2,257	2,313
	Corporate Non-labour Costs	728	729	751
Total Internal Corporate Costs		2,700	2,986	3,064
Total Corporate Costs		6,093	6,388	6,568

The 2013-14 and 2014-15 figures, except the corporate labour costs (see Section 4.4.4) and fleet expenses, are based on the actual costs in 2012-13 by applying a cost escalation factor of 3% in general.

4.4.4 Internal corporate costs

The entity's internal corporate costs, which count for 44% of the total corporate costs, are separated into labour and non-labour costs in Table 17 and Table 18 respectively.

Table 17 : Internal Corporate Labour Costs

Internal Corporate Functions' Labour Costs	2013/14 Budget	
	FTE No.	Costs (\$'000)
Laboratory Operations	3	256
General Manager Costs*	3	59
Infrastructure & Planning Unit Allocations	3	411
Development Assessment	1	104
Customer Contact Centre	7	578
Customer Information Reporting	2	167
DT Unit Allocations	6	592
Environmental Management	1	89
Total Corporate Labour Costs 2013-14	25	2,257
Total Corporate Labour Costs 2012-13		1,972
Total Corporate Labour Costs Increase from 2012-13 to 2013-14		285
% Increase from 2012-13 to 2013-14		14.4
Average Employee Costs for 2013/14		90

* Only 23% of the General Managers' costs are allocated to the Redland Water.

The entity has advised that the increase of \$285,000 between 2012-13 and 2013-14 is because the 2013-14 budgets provide for three vacant positions (customer services officers) to be filled.

However, based on the experience from other entities, SKM considers that budgeting for seven customer services officers is not prudent and that the current number of four is more efficient. Therefore, the internal corporate costs should be adjusted down by \$225,000 to \$2,031,000 in 2013-14, and by \$232,000 to \$2,092,000 in 2014-15.

Table 18 : Internal Corporate Non-labour Costs

Internal Non-labour Corporate Costs	2013/14 Budget (\$'000)
Advertising	16
Community Assistance	5
Contractors (QCA Regulatory Costs)	371
Fares and Travel	10
Fees and permits	8
Information Resources	5
Material Expenses	31
Office Administration Costs	41
Plant, Vehicle & Hire Operating Costs	12
Subscriptions	30
Telephone	82
Competitive Neutrality Costs	116
Total	729

The entity has advised that competitive neutrality costs are land tax and loan guarantee fee paid to the Council. According to the Authority's definition, these are not corporate costs.

The contractor's costs of \$371,000 relate to meeting the Authority's regulatory requirements. The other non-labour costs are relatively small and appear reasonable.

4.4.5 Corporate costs allocation methodology and drivers

Corporate cost allocation is generally based on specific drivers decided by the managers of relevant corporate branches. A weighted average ratio for each corporate cost is calculated to provide an indication of how these costs are allocated, as shown in Table 19.

Table 19 : Cost Drivers

SLA Cost Centre	Drivers*	Weighted Average Cost Allocation Ratio in 2013-14
Finance	Transaction volume	36.4%
Information Services	PC numbers & transaction volume	10.6%
Human Resources	FTE number and transaction volume	38.6%
Marketing/Community Engagement	% allocation	1.2%

4.4.6 Costs at Council level (SLA related cost centres)

As corporate costs are allocated through the SLA with Redland City Council, SKM has analysed the Council's overall operating costs in 2012-13 and 2013-14, as shown in Table 20. SKM has noted that the Council has allocated 17% of its total SLA costs to Redland Water in 2012-13, and 19% in 2013-14.

Table 20 : Council's Operating Costs

SLA Cost Centre	2012-13 (\$'000)	2013-14 (\$'000)
Finance	3,967	4,728
HR	646	683
IT	9,966	8,466
Marketing	2,007	1,543
Total	16,586	15,420

4.4.7 Prudence and Efficiency

To assess whether Redland 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) The corporate costs of Allconnex Water, as provided in the Authority's SEQ Interim Price Monitoring for 2011/12 Part B
- 2) Ratios of corporate costs 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 considers that in consolidating Redland Water back into the Redland City Council, economies of scale can be achieved in the operations of its SLA cost centres. This should lead to some efficiency gains in the total operating costs of the Council and consequently in the SLA costs charged to Redland Water.

4.4.8 Comparison between Allconnex Water and Redland City Council

Redland City Council was one of the three participating councils of Allconnex Water. According to the Participation Agreement, it was entitled to receive 11.14% of the participation returns from Allconnex Water (Gold Coast City Council 61.65%, Logan City Council 27.21%).

A comparison between Redland City Council 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 on a percentage of total cost basis (assuming an 11.14% interest), that Redland City Council’s corporate costs are significantly higher than those of Allconnex Water. However, its total operating costs are similar to those of Allconnex Water. It seems that the higher level of corporate costs may reflect a change in costing policy following the de-amalgamation of Allconnex Water, rather than a real increase in such costs.

However, SKM considers that efficiency saving targets should be established for future years and the SLA costs should be reviewed in accordance with relevant benchmarking information available.

Table 21 : Comparison between Allconnex Water and Redland City Council

	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
Redland City Council Corporate Costs (exc. competitive neutrality costs)	6,093	6,388	6,568
Redland City Council Operating Costs	43,099	43,864	47,782
Redland City Council Bulk Water Costs	18,858	19,906	22,846
Redland City Council Corporate Costs/Allconnex Water Corporate Costs	21.0%	22.5%	-
Redland City Council Operating Costs/Allconnex Water Operating Costs	10.3%	9.8%	-
Redland City Council Operating Costs exc. Bulk Water Costs/Allconnex Water Operating Costs exc. Bulk Water Costs	10.9%	10.8%	-

Table 21 indicates that, as a proportion of total operating costs, corporate costs are double what they were in Allconnex Water.

4.4.9 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 (\$ M)	Corporate Costs/ Operating Costs (%)	Comment
Redland City Council	24	26.7	Excludes bulk water costs 2013-14 adjusted budget Includes in-house and SLA costs
Gold Coast City Council	106	20.9	Excludes bulk water costs 2013-14 budget Includes in-house and SLA costs
Logan City Council	51	14.3	Excludes bulk water costs 2013-14 budget Includes in-house and SLA costs
Queensland Urban Utilities	274	19.8	Excludes bulk water costs 2012-13 estimated actuals Corporate costs said to align with QCA definition
Allconnex Water	212	14.3	Excludes bulk water costs 2011-12 budget In transition from Council SLAs
Unitywater	145	33.8	Excludes bulk water costs 2013-14 budget Corporate costs are said to align with QCA definition
Sydney Water	901	19.8	Excludes bulk water costs 2011-12 actuals IPART review found scope for significant efficiency gains
Hunter Water	122	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.)

4.4.10 Cost escalations

The cost escalation factor used by the entity for both 2013-14 and 2014-15 budgets is approximately 3%. SKM considers that a cost escalation factor of 2.5% which aligns with the Council's Certified Agreements is more reasonable.

4.4.11 Conclusion

In summary, SKM concludes that the Council's corporate costs budgets are prudent but not efficient. SKM has proposed a number of adjustments as shown in Table 23.

Table 23 : Proposed Adjustments to Budgets

	2013-14 (\$'000)	2014-15 (\$'000)
Total corporate costs	6,388	6,568
Less: Adjustment to labour cost	225	232
Less: Competitive neutrality costs	116	119
Adjusted Total Corporate Costs	6,047	6,217
Less: Adjustment to Cost Escalation Factor (0.5%)	26	20
Proposed Corporate Costs	6,021	6,197

4.5 Employee expenses

4.5.1 Overview of operating expenditure

4.5.1.1 Employee costs

The labour cost budget for this item includes all staff Redland City Council employs in the operation of their water supply and wastewater treatment assets. It does not include staff employed by the Redland 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.

When Redland City Council resumed responsibility for water and wastewater services from Allconnex, a total of 84 staff returned from Allconnex. This resulted in a number of available vacancies as Redland City Council had a budget for 96 water and wastewater staff. Redland City Council (the business unit within Redland City Council responsible for delivering water and wastewater services) has approval from the Council to increase its staffing levels in 2013-14 to 100 and 100.5 FTEs in 2014-15.

The 2013-14 employee expense budget was determined based on 100 FTEs. A vacancy factor amounting to \$102.7k for 2013-14 was also factored into the budget in accordance with Council guidelines.

4.5.1.2 Contractor costs

Contractor expenses have been budgeted based on expected work requirements. The contractor expenses incurred in 2012-13 and the budgeted contractor expenses for 2013-14 are shown in Table 11. Contractor costs are expected to increase by about 8% in 2013-14, driven mainly by a 32% increase in the water services albeit off a low base while contractor costs in wastewater services are forecast to only increase in around 1%.

4.5.2 Provided documentation

The key reference documents used for this review are:

- QCA Information Requirements TemplatesV1.xls
- QCA RFIs to Redland(629855_1).doc
- option 7 incr qca & reval 30052013.xls
- Contractors 17102013.xls
- FTE'S from allconnex.xls

4.5.3 Prudence

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

- Legal obligations
- Operations and maintenance of existing infrastructure

Redland 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 Redland 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, Redland City Council sought to fill a number of vacancies. These vacancies were progressively filled over the year and thus resulted in some positions being filled for only part of the year. The data in the template for 2012-13 was provided based on actual 2012-13 rather than the 2012-13 budget. It has not included an allowance for the vacancies that existed during the year.

The 2013-14 budget that Redland City Council prepared is based on the planned requirement of 100 positions. This is in contrast to the 96 positions⁷ that were transferred over from Allconnex in 2012-13. According to the data provided in the template, Redland City Council incurred an actual employee expenditure of \$5.6 million in 2012-13. In 2013-14, a budget employee expenditure of \$5.9 million has been proposed. This is some 5.2% higher than the 2012-13 actual expenditure and reflects the filling of vacancies, the higher staffing levels of 2013-14 as well as the Certified Agreement provision of 2.5% annual wage increase. For 2014-15, Redland City Council has proposed a 2.5% increase in employee expenses, consistent with the provision of the Certified Agreement.

SKM also compared the data provide in the template with other information supplied by Redland City Council including the “Water Full Cost Pricing Model” prepared by the Queensland Treasury Corporation (QTC) for Redland City Council. The 2013-14 employee budget values found in the QTC model are higher than that provided in the template. The difference is shown in Table 24.

Table 24 : Comparison of employee expenses (\$'000)

Total 2013-14 employee expenditure	Water (\$'000)		Wastewater (\$'000)	
	2013-14	2014-15	2013-14	2014-15
Water Full Cost Pricing Model	3,332	3,416	4,796	4,916
QCA template	2,204	2,259	3,650	3,742
Difference	1,129	1,157	1,146	1,175

While SKM was advised by Redland City Council that additional FTEs are forecast across the water and wastewater business in 2013-14 and 2014-15 after a review was undertaken to determine the resources required to manage the responsibilities transferred from Allconnex. 100 FTE positions have been budgeted in 2013-14 and 100.5 FTE positions in 2014-15. Of the 100 positions required in 2013-14, the QTC model provides for 45.5 FTEs to be employed in the supply of water services and the remaining 54.5 in wastewater. Redland City Council expects that staffing levels will grow at around the same rate as the growth in the community the business serves and this is estimated to be about 0.5% pa. SKM notes that this is lower than the 2011 forecasts published by the Office of Economic and Statistical Research (OESR, formerly PIFU). In the

⁷ 84 staff together with 12 vacancies returned to Redland City Council from Allconnex.

OESR projections, population in Redland LGA are projected to increase by 1.65% p.a. between 2011 and 2016 while dwellings are projected to grow by 2.24% p.a.

Nevertheless, SKM is of the view that FTE requirements should be based on the work required, and not be determined per business served or per head of population metrics (ie a bottom up determination of FTE requirements should be used rather than top down). SKM also considers that the rate of growth in the community is not a good proxy for staff number escalation rate.

The details of contractor expenses indicate that overall, contractor costs are expected to increase by about 8% in 2013-14. This is shown in Table 25. Water contract works are expected to rise by about 32% while wastewater contract works by about 1%. The cost of continuing jobs (2012-13 and 2013-14) in wastewater fall from \$3.1 million to just over \$3 million while in water, the cost of such jobs rise from \$730,000 to \$753,000, a rise of 3%. In wastewater, some \$130,000 worth of contract works were completed in 2012-13 and not continued in 2013-14 while over \$260,000 work of new contract works are initiated. In water, \$220,000 works were completed in 2012-13 and about \$0.5 million worth of new contract works are started in 2013-14.

As shown in Table 25 the main driver for the 32% increase in contractor cost in the provision of drinking water services is the initiation of a number of new contracts. The initiation of these new contracts was driven by the need to consolidate the return of the business from Allconnex, This is highlighted by the initiation of additional contracts in areas like Financial Management and Meter Reading.

The two major new contract expenses are in Financial Management which reflects the increased costs involved in preparing and managing regulatory submission to the Authority and Meter Reading. Preparation of regulatory submissions is a new activity for Redland City Council and in total amounted to over \$400k. For meter reading, the previous contractor with Allconnex did not agree to novate the meter reading contract from Allconnex to Redland City Council. In addition, certain areas in Redland City Council's supply area were not covered by the previous contract as the areas were seen by the previous contractor to be too small. Internal staff was engaged in reading such meters. New contracts for meter reading thus had to be drawn up and let to meter readers at higher costs.

Table 25 : 2012-13 and 2013-14 Contractor Expenses

Wastewater	2012/13 Actual (\$)	2013/14 Budget (\$)	Water	2012/13 Actual (\$)	2013/14 Budget (\$)
Wastewater Recoverable Works	-103,059	2,777	Bay Islands Water Retic Repair & Maintenance	9,891	9,000
Biosolids Treatment	202,374	36,419	Booster Pumps	14,513	24,000
Capalaba WPCW Ops	256,216	245,000	Mainland Reticulation Maintenance	86,151	60,384
CCTV Inspection	163,404	250,000	Mainland water service repair	431,050	350,000
Cleveland WPCW	158,826	317,012	Unlined fittings operational	3,167	150,000
Dunwich Sewerage Treatment	56,318	44,241	Water Recoverable Works	127,158	103,789
Grit & Screenings	98,278	150,273	Water Supply Modelling	40,897	20,582
Groundwater Monitoring	64,582	55,549	Water System Ops & Maintenance	17,917	35,000
Maintenance of rising mains	13,850	71,923	Network Master Planning	24,600	-
Mt Cotton WPCW	87,070	93,000	Water Hammer Investigation	31,725	
Pt Lookout WPCW	138,978	127,428	Water Quality Assurance	9,975	
Pump Station Capacity Assessment	85,502	50,000	Other	156,235	-

Wastewater	2012/13 Actual (\$)	2013/14 Budget (\$)	Water	2012/13 Actual (\$)	2013/14 Budget (\$)
Pump Stations	1,100,993	750,000	Commercial Programs	-	29,403
Sewer Maintenance Holes	50,841	150,000	Financial Management	-	157,320
Sewer trunk main cleaning	78,147	145,197	Heinemann Rd Reservoir	-	24,502
Sewerage Maintenance	56,080	66,266	Hydrant Maintenance	-	80,000
Thorneside WPCW	254,618	207,598	Meter Relocations	-	23,184
Victoria Pt WPCW	252,350	194,041	Reading Contract	-	185,000
Wastewater Modelling	46,477	50,000	Water Billing Admin	-	4,960
WW Treatment Admin	45,898	4,464			
Biowater Trial Macleay Island	1,280	-			
Cleveland WWTP EIS	37,446	-			
Lab Services Water	142	-			
Pump Station #142	390	-			
Pump Station #3	240	-			
Unlined fittings operational	495	-			
VSD Feasibility	16,994	-			
Wastewater Odour Investigations	3,350	-			
Wastewater Planning	25,325	-			
Other	44,500	-			
Compliance Wastewater	-	4,900			
Financial Management	-	256,680			
Total Wastewater Contractor Expenses	3,237,904	3,272,768	Total Water Contractor Expenses	953,279	1,257,124

4.5.4.1 Calculation of costs

The 2012-13 data provided in the template by Redland 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 the actual expenditure of 2012-13 and does not include the cost of vacancies transferred over from Allconnex. These 12 vacancies transferred (forming some 12.5% of the Redland City Council FTE positions) were progressively filled over the 2012-13 and 2013-14. By the end of October 2013, 6 vacancies exist in the water and wastewater businesses with a high likelihood that 2 of these vacancies will be filled shortly. On average it is likely that over the 2013-14 year, the average vacancy rate would amount to about 4% as vacancies continue to be filled over the remainder of 2013-14.

The 2013-14 employee expenditure budget is based on 100 FTEs and includes an allowance (negative) of \$102.7k for vacancies and a 2.5% pa wage increase provided for by the Redland City Council Certified Agreements as well as the legislated increase in superannuation (from 9% in 2012-13 to 9.25% in 2013-14), SKM is of the view that the allowance of -\$102/7k is insufficient as it reflects an vacancy rate of only 1.7%.⁸ In its response to SKM's draft report Redland City Council indicated that the Council had announced an increase to the vacancy adjustment to 2.58% (an additional \$55,000) and that more savings are expected later in the

⁸ Vacancy allowance of \$102.7k divided by proposed employee cost of \$5,854.1 plus vacancy allowance - \$102.7/(\$5,854.1+102.7) X 100 = 1.7%

year.⁹ As a vacancy rate of about 4% is likely, SKM recommends a vacancy allowance of -\$245,000. The proposed increase in 2014-15 is 2.5%, consistent with the wage increase provided for under the Certified Agreement. In this regard, SKM notes that the proposed Redland City Council employee increase has not included the increase in superannuation guarantee that is scheduled to increase from 9.25% in 2013-14 to 9.5% in 2014-15.

The proposed contractor expenses for 2013-14 are \$4.5 million. This is 8% above the expenditure actually incurred in 2012-13. The increase in contractor expenses for 2012-13 expenditure is due to the need for Redland City Council to re-establish water and wastewater services on their return from Allconnex. While these businesses returned from Allconnex, not all the management and operational systems required came with the businesses or were appropriate for the reduced scale. As a result some \$0.5 million has been budgeted for new contracts for water and \$260,000 for new contracts for wastewater. Many of these new contracts aim to provide the systems to improve the management and operations of the provision of water and wastewater services. Given the fairly limited time since the re-establishment of the Redland City Council business unit within Redland City Council and the relatively low level of resources available to the business unit, SKM is of the opinion that the proposed increase in contractor expenditure proposed for 2013-14 is reasonable to enable Redland City Council to adequately resource the management and operations of the water and wastewater business. Redland City Council's proposed increase in contractor expenditure for 2014-15 is 2.1%. This level of increase is consistent with recent inflation data for Brisbane (2.1% for the 2013 March quarter and 2.0% for the 2013 June quarter).

4.5.4.2 Market conditions

The increase comprises of 2.5% wage increase provided by the Redland City Council Certified Agreements that expire on 30 June 2016. SKM is of the opinion that this proposed increase is reasonable in that it reflects general market conditions as well as the provisions provided by its Certified Agreements with staff.

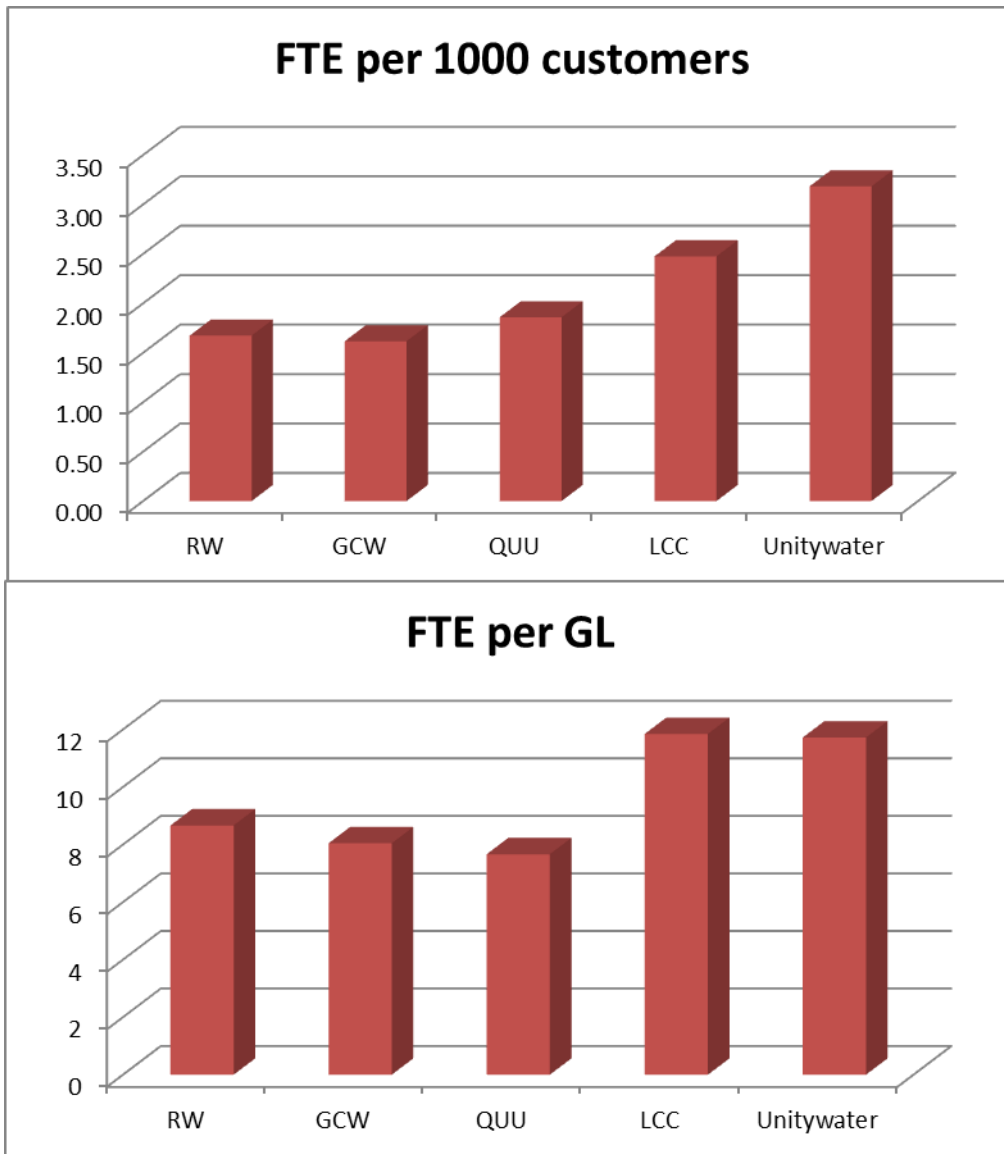
Redland City Council has not provided any information regarding the market conditions for contractors. It has assumed that costs for contractors would rise in line with inflation.

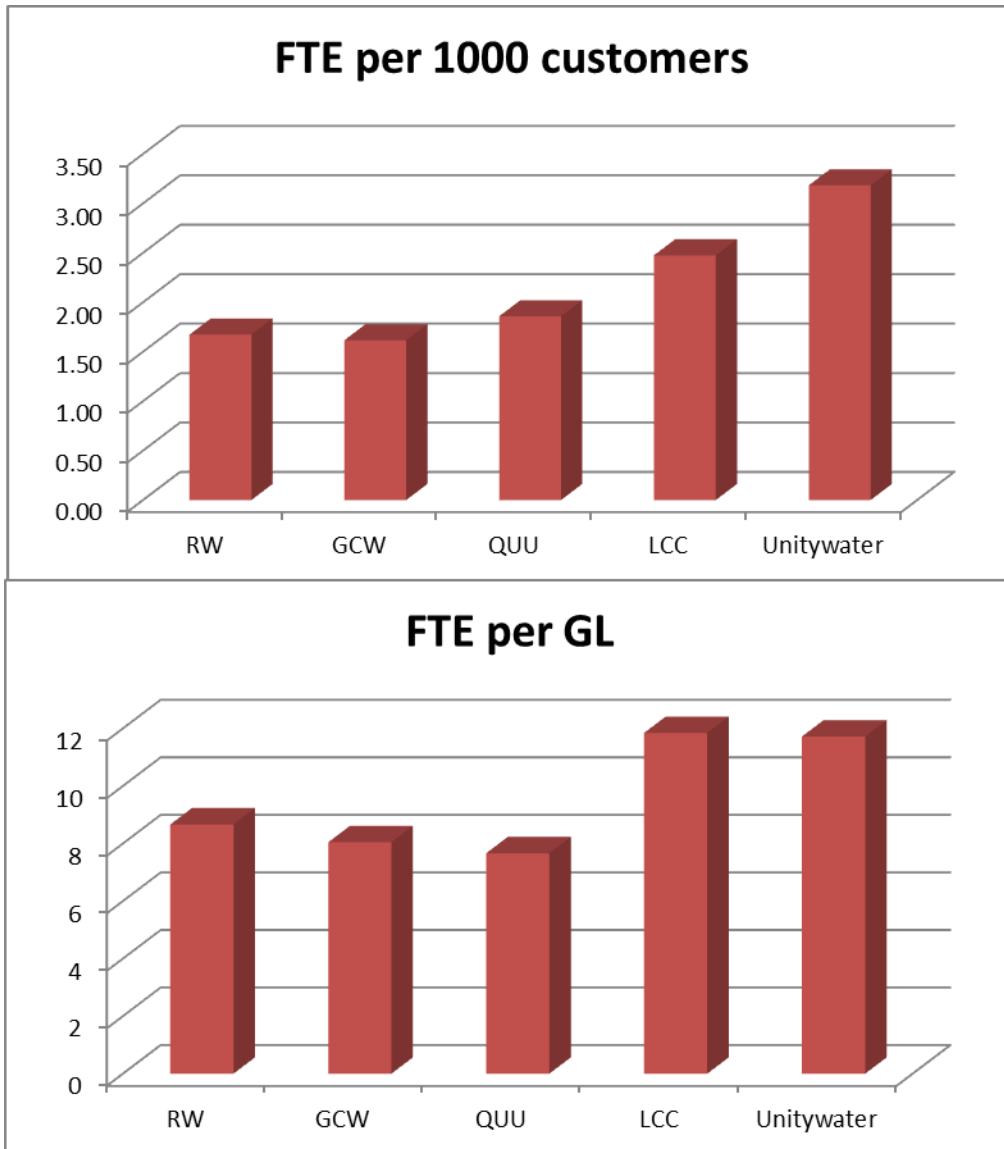
4.5.4.3 Benchmarking

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

⁹ SKM notes that an increase of \$55k to the vacancy allowance results in a vacancy rate of 2.62% based on the employee cost proposed in the information template.

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





SKM notes 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 unquantified anticipated performance improvement for the assets and eventually a reduction in costs due to reduced emergency events. Redland City Council indicated that over the last eight years, the council has sought to improve its ratio of preventative and corrective expenditure as compared to emergency or breakdown expenditure. In addition, allowance must also be made for the significantly smaller size of Redland City Council and hence reduced economies of scale over the other entities. While Gold Coast Water is of a similar size to Unitywater and the water and wastewater business of Logan City Council is only about 40% of the size of Gold Coast Water and Unitywater, Redland City Council is about half the size of Logan City Council in terms of both customers and water delivered. Given these considerations, SKM is of the opinion that the staffing levels proposed by Redland City Council are reasonable.

4.5.5 Comparison against saving targets

Specific productivity improvements targets for Redland City Council are not set by the council and the council has not provided any savings targets to the Authority or to SKM. Water and wastewater operating expenditure decisions are governed by Redland City Council. In general, budgets are prepared and then reviewed by Redland City Council to ensure the overall budget is within its set budget increase parameters. Staff increases

are proposed to reflect increases in the population in the community that the business unit serves. However, SKM has been unable to corroborate this increase as the proposed staff increase is significantly below the OESR growth projections for both population and dwellings in the Redland LGA between 2011 and 2016. In any event, SKM is of the view that the direct link between community growth and FTE requirements is tenuous. SKM accepts that some staff increases may be justified if the size of the network grows, but SKM considers that such correlation is less than one and hence required the rate of growth of required staff numbers should be less than the rate of growth of population served.

4.5.6 Summary

96 FTE position were transferred from Allconnex (including 12 vacancies). Redland City Council conducted a resources needs assessment and concluded that 100 FTEs were required in 2013-14 to manage and operate the water and wastewater businesses. While the Council indicated that it has escalated the FTE requirement for 2014-15 by 0.5%, the rate of community growth, this increase has not been included in the budget proposed for 2014-15.

While the employee expense budget was determined based on 100 FTEs, a vacancy factor amounting to \$102.7k for 2013-14 was also factored into the budget in accordance with Council guidelines. SKM is of the view that this vacancy factor is insufficient and recommends increasing the factor to \$245,000.

In summary, SKM recommends a small adjustment to the water and wastewater employee cost budget proposed by Redland City Council based on a higher vacancy factor. SKM has also recommends increasing the employee expenses growth rate for 2014-15 to account for the higher superannuation contribution. SKM notes that the contractor employee expenses are efficient and there are no changes proposed. The recommended employee expenses are shown in Table 26.

Table 26 : Recommended employee expenses

Total employee expenditure	2012-13	2013-14	2014-15
RCC Proposed	5,566.5	5,854.1	6,000.4
SKM recommended	5,566.5	5,711.8	5,868.8
Difference		142.3	131.6

SKM considers that the proposed 2013-14 and 2014-15 contractor expenses are efficient. This reflects the letting of new contracts to improve the management and operations of the water and wastewater business on its transfer from Allconnex.

Table 27 below classifies the documentation received and identifies any further information required to adequately review each section.

Table 27 : 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		To provide justification for the higher proposed FTEs for 2013-14

4.6 Electricity costs

4.6.1 Overview of operating expenditure

Electricity is used by the Redland 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.

Table 28 details the electricity expenditure detailed in the Information Template for Redland City Council's water and wastewater business between 2012-13 and 2014-15. It provides both the initial data provided by Redland City Council and also the revised data provided during the course of SKM's review.

Table 28 : Redland City Council's proposed electricity expenditure for water and wastewater operations (\$'000)

Service	Electricity Expenditure (\$'000)		
	2012-13	2013-14	2014-15
Drinking water	11.9	27.8	28.4
Wastewater via sewer	1,456.9	1,687.9	1,723.4
Total	1,468.7	1,715.7	1,751.7
% increase		16.8%	2.1%
Revised Expenditure			
Drinking water	11.9	27.8	28.4
Wastewater via sewer	1,809.5	1,687.9	1,723.4
Revised total	1,821.4	1,715.7	1,751.7
% increase		-5.8%	2.1%

Redland City Council has proposed total electricity expenses for the period of 2013-15 of about \$3.5 million. Electricity expenditure is projected to fall by 5.8% in 2013-14 and then increase by 2.1% in 2014-15.

4.6.2 Provided documentation

The key reference documents used for this review are:

- QCA Information Requirements TemplatesV1.xls
- rfi 78.xls
- Emails from Redland City Council responding to SKM's queries and RFIs
- Energetics, *Energy Audit of Redland Water's Wastewater Operations*, 12 September 2013
- Total Usage PS.xls

4.6.3 Prudence

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

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

Redland 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 Redland 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 Redland City Council's obligations and hence, is prudent.

4.6.4 Efficiency

4.6.4.1 Calculation of costs

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 response to SKM's request for information, Redland City Council advised that the 2012-13 Information Template cost for electricity of \$1.5 million was based on the cost of electricity Redland City Council had paid to Origin Energy in 2012-13.

Subsequent to providing the initial data in the Information Template, Redland City Council undertook an audit of the electricity accounts. This audit identified a number of disputed amounts that will likely need to be addressed by Origin Energy including a number of accounts that have not been billed (some for extended periods), wrongly billed for electricity consumption by other Councils (Gold Coast and Logan City Councils) when part of Allconnex, amounts that were not accounted for during the reconciliation process as part of the transition from Allconnex and in some cases were refunds that are due to Redland City Council for accounts that had been transferred. In total, the net amount for these disputed accounts is some \$319,000. Redland City Council included these disputed amounts that need to be paid for 2012-13 electricity consumption into the revised 2012-13 electricity expenses provided to SKM as the advice received from the audit was that these amounts will likely be required to be paid. Redland City Council has proposed price increases of 2.1% for 2014-15. This is consistent with recent inflation for Brisbane and is at the low end of the RBA medium term target range of 2% to 3%.

Redland City Council is also in the process of implementing the recommendations from its Energy Audit undertaken by Energetics. The resulting annual savings for 2013-14 are expected to reduce electricity costs by about \$30k. The saving measures include:

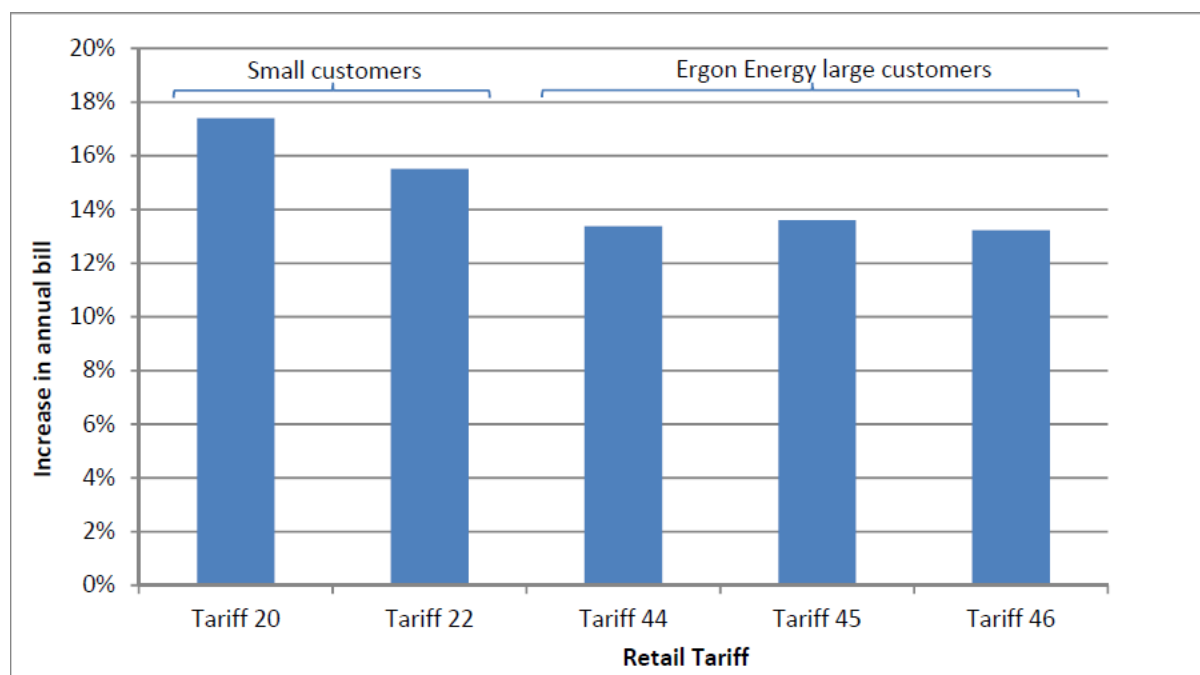
- Replacing the diffusers of one of the two aeration basins. This has resulted in the aeration basins operating at 65 kpa and it is expected to operate at 60 kpa when the second basin gets diffusers replaced early in 2014. Energetics has estimated that this will result in annual saving of \$15,000
- Dissolved oxygen probe cleaning may yield some very minor savings. Redland City Council estimates that this will save about \$6,000.
- Redland City Council has been working with Hunter Water and Sydney Water in a trial of reducing mixing time. SCADA programming has been changed at Victoria Point and Cleveland to reduce mixing times. However, Redland City Council has not been able to reduce mixing to the extent projected by Energetics and estimates the savings at \$5,000.
- Replace the leaking compressor at Victoria Point which is expected to save \$3,000.
- Saving from the installation of variable speed drives (VSD) has not been included although they will be implemented as pumps are replaced and switchboards are renewed. The savings expected do not provide justification for an immediate replacement.

While the savings detailed explain about \$30,000 in electricity cost reductions in 2013-14, it does not fully explain the 5.8% reduction (\$105,700) in electricity costs proposed in the Information Template. Redland City Council is in the process of re-contracting its electricity supply. The current electricity supply contract was novated from Allconnex and is due to expire at the end of 2013. SKM acknowledges that during the re-contract

period, future prices are difficult to predict. Nevertheless SKM considers that Redland City Council is understating the likely increase in retail electricity cost for 2014-15. In May 2013, the Authority determined that small customers on tariffs would face increases in electricity prices as it transitions to cost reflective tariffs and a typical small non-residential customer would face increases of over 15% in 2013-14¹⁰ 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 is not applicable to the all the Redland City Council’s sites 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.

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 from a price of 22.1 ¢/kWh, a total price increase of 5.8 ¢/kWh is projected from 2011-12 to 2014-15.¹¹ This suggests a nominal price increase of about 26.2% over the period or 8.1% p.a.. 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.”¹² It is thus likely that the increase would be larger than 8.1%. The replicated table from the AEMC report may be seen in Figure 4-9.

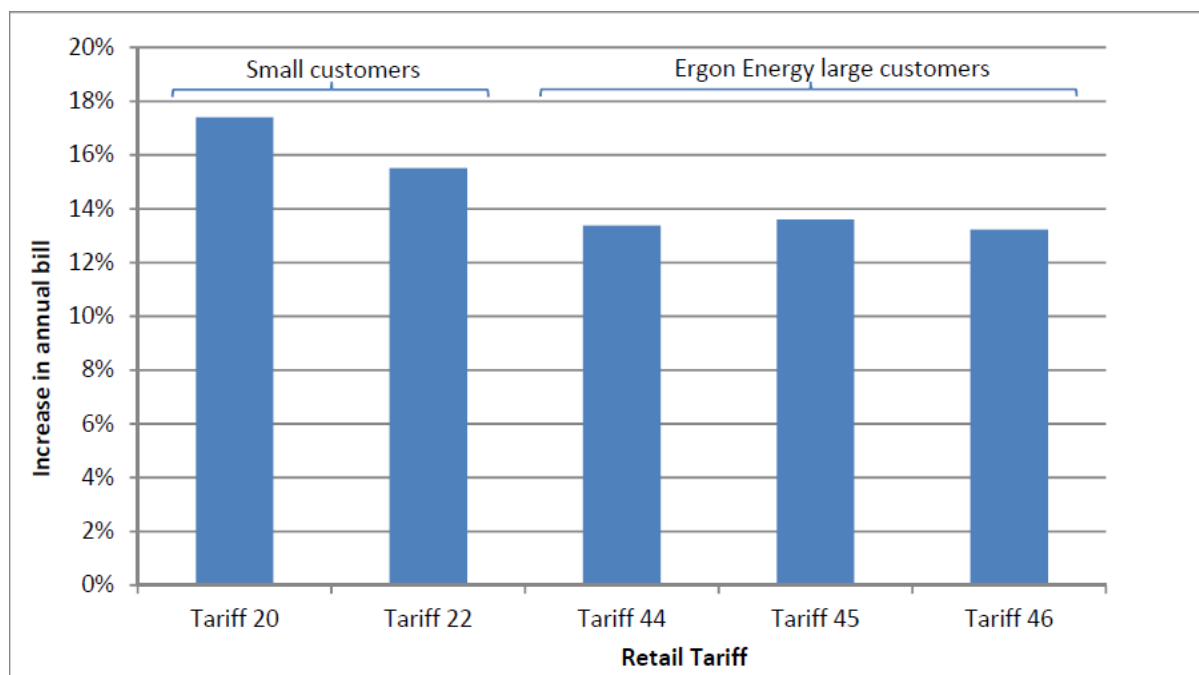
Figure 4-9 : Change in Electricity Bills in 2013-14 for Typical (Median) Residential Customers



¹⁰ Queensland Competition Authority, *Final Determination: Regulated Retail Electricity Prices 2013-14*, May 2013 P IX

¹¹ AEMC 2013, Possible future retail electricity price movements: 1 July 2012 to 30 June 2015, Electricity price trends report, 22 March 2013, Sydney, P109

¹² Op. cit. P30.



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

Table 29 : 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 incorporate 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.

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Notes:

1. These values do not incorporate 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

Redland City Council has not included in its estimate an increase in usage. While there may not be sufficient data to undertake a robust estimate of usage growth given the recent transition from Allconnex, SKM is of the opinion that as population increase, increase demand of drinking water and increase need to process sewage will be required. This will increase the demand for electricity to pump both drinking water and wastewater as well as in the wastewater treatment plants.

As a proxy for electricity load growth, SKM recommends that consideration be given to the including a load growth component in estimating the cost of electricity. In the absence of more robust flow data and water/wastewater demand growth rates, SKM is of the view that the Queensland Treasury's Office of Economic and Statistical Research (OESR) population growth rate be considered a basis as a proxy for load growth. SKM notes that the OESR has projected that the population of the Redland local government area (LGA) to grow by 1.7% p.a. between 2011 and 2016 based on its medium growth series.

In its response to SKM's draft report, Redland City Council provided 2012-13 electricity consumption and cost information for its various wastewater treatment plants and pump stations. Details of adjustments made to the actual costs to take into account the different billing periods and to annualise the costs were also provided. Savings from the implementation of the energy audit undertaken by Energetics and the report by Energetics was included in the Council's response.

After taking into account the above, SKM is of the view that the manner in which Redland City Council has forecast its electricity expenses is not in keeping with good practice and not conducive to the development of accurate budgets. Information on wastewater services from Allconnex and the quality and quantity of data available to Redland City Council for electricity expenses is both limited and in some cases dated and incorrect because of the electricity retailer's failure to supply up to date or accurate invoices. The need to make, yet to be quantified, adjustments to consumption date associated with problems arising from the transition from Allconnex makes estimating future expenditure uncertain.

Detailed electricity consumption and cost data from Redland City Council indicated that after adjustments to its actual 2012-13 electricity expenses to take into consideration different billing periods and annualising the costs, in 2012-13, electricity expenditure was \$1,697,800. This is some \$123,600 less than that proposed by Redland City Council in the revised Information Template.

In reviewing Redland City Council's 2013-14 forecast, SKM found that while adjustments had been made to take into consideration likely savings from efficiency measures recently implemented, Redland City Council did not factor in any potential load growth as a result of growing population nor the likelihood of price increases resulting from the renewal of the electricity supply contracts and increases in electricity network use of system

charges. As discussed earlier in this section, SKM is of the opinion that it would be reasonable to apply a 1.7% load growth assumption based on the projected population growth in the Redland LGA.

SKM is of the opinion that the Redland City Council estimate of about 3% price increase for 2013-14 (based on an examination of the QTC model which applies 0.25% per month increase for electricity costs) is too low 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.

For the 2014-15 forecast, SKM is of the view that load growth needs to be taken into consideration in estimating the cost of electricity together with any likely price increases. As the AEMC has estimated that the annual increase between 2012-13 and 2014-15 at 4% pa, SKM recommends applying this increase to Redland City Council's 2014-15 electricity prices.

SKM's recommend electricity cost for Redland City Council is shown in Table 30. The adjustments take into consideration potential additional saving as Redland City Council continues to implement the recommendations from the Energetics report on potential energy efficiencies that may be obtained. It also applies a load growth factor of 1.7% pa and likely electricity price increases of 11.6% for the second 6 months of 2013-14 and the first 6 months of 2014-15 and 4% for the second 6 months of 2014-15.

Table 30 : Revised electricity expenditure calculations

Electricity Cost	2012-13	2013-14	2014-15
RCC proposed	1,821.4	1,715.7	1,751.7
SKM recommendations	1,697.8		
Less expected savings		-30.0	-30.0
Add load growth at 1.7% pa		28.9	30.6
Add electricity price increase (11.6% in 2014 and 4% in 2015)		101.9	139.1
SKM recommended expenditure		1,798.5	1,938.1
Percentage annual increase		5.9%	7.8%

4.6.4.2 Market conditions

Allconnex Water's electricity supply contract was novated to the Redland 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 to supply its water and wastewater facilities.

No specific information has been provided with which to assess the market conditions for electricity expenses. Redland City Council has stated that all procurement is undertaken in accordance with the council's procurement policy and for electricity contract renewal due in December 2013. However, from its analysis, SKM understands that Redland City Council has only allowed for price increase of 3% pa based on the QTC model. This does not appear to be sufficient to account for likely price increases as a result of the renewal of the electricity supply contract.

4.6.4.3 Efficiencies and economies of scale

Redland 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 may be achieved as the Council is a significant entity. However, SKM notes that Redland City Council is a relatively small council and greater economies may be achieved by co-ordinating its purchases with other similar councils to achieve greater purchasing power. To achieve this, Redland City Council has engaged Local

Buy. 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. Purchasing through Local Buy could exploit the purchasing power of Local Buy and enable Redland City Council pool its demand with that of others and thus achieve competitive market prices similar to those enjoyed by larger entities for the new electricity contract.

Redland City Council has also carried out a recent assessment of power factor at the major wastewater treatment plants. This work was done as it was expected that energy suppliers will begin to implement charges based on kVA rather than kW (or kVAhr rather than kWhr). As a result the council decided that it would be prudent to assess whether any power factor correction facilities will be needed to be installed in the future. The Council found that all major process units were above 0.8 power factor. However, in discussions with electricity retailers, SKM is of the understanding that it is unlikely that energy retailers will re-incorporate kVA pricing signals into their electricity tariff.

An energy audit carried out by Energetics found a number of areas for improvement and energy (and thus cost) savings. Many of these have been implemented and have resulted in immediate savings. Further savings are expected as more measures are implemented in future years when they can be justified.

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 prudent.

SKM recognises that information on water and wastewater services from Allconnex and the quality and quantity of data available to Redland City Council for electricity expenses is both limited and in some cases dated and hence incorrect because of the electricity retailer's failure to supply up to date or accurate invoices. The need to make, yet to be quantified, adjustments to consumption data associated with problems arising from the transition from Allconnex makes estimating future expenditure uncertain. Nevertheless, SKM is of the view that the manner in which Redland City Council has forecast its electricity expenses is not in keeping with good practice and not conducive to the development of accurate budgets and is of the opinion that the proposed electricity expenditure is not efficient.

SKM found that while adjustments had been made to take into consideration likely savings from efficiency measures recently implemented, Redland City Council did not factor in any potential load growth as a result of growing population nor the likelihood of price increases resulting from the renegotiation of the electricity supply contracts and increases in electricity network use of system charges. As discussed earlier in this section, SKM is of the opinion that it would be reasonable to apply a 1.7% pa load growth assumption based on the projected population growth in the Redland LGA.

SKM is of the opinion that the Redland City Council estimate of about 3% price increase for 2013-14 (based on an examination of the QTC model which applies 0.25% per month increase for electricity costs) is too low 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.

For the 2014-15 forecast, SKM is of the view that load growth needs to be taken into consideration in estimating the cost of electricity together with any likely price increases. As the AEMC has estimated that the annual increase between 2012-13 and 2014-15 at 4% pa, SKM recommends applying this increase to Redland City Council's 2014-15 electricity prices.

Table 31 shows SKM's recommended electricity expenses. The recommended expenses result in an increase in electricity expenses for 2013-14 of \$83k and \$186k in 2014-15 from that proposed by Redland City Council.

This increase takes into account likely electricity price increases and load growth which Redland City Council did not take into consideration in their proposed electricity expenditure.

Table 31 : Revised electricity expenditure

Electricity expenses (\$'000)	2012-13	2013-14	2014-15
Proposed expenses	1,821.4	1,715.7	1,751.7
SKM recommended	1,697.8	1,798.5	1,938.1

Table 32 below classifies the documentation received and identifies any further information required for adequate review.

Table 32 : Electricity Expenses quality of information provided

Section of OPEX review	Documentation Status	Additional Information Required
Prudency		
Cost driver		
Efficiency		
Calculation of costs		Apply load growth factors and price increase factors to forecast
Market conditions		Provide additional information discussing market conditions faced by Redland City Council
Efficiencies and economies of scale		

4.7 Other materials and services

4.7.1 Overview of operating expenditure

The Other Materials and Services category covers a range of different expenses that are not directly allocated to other defined categories.

Redland City Council has proposed total expenses for Other Materials and Services over the forecast period of 2013-14 and 2014-15 of \$62.4 million. This is shown Table 33 which provides an overview of the Other Materials and Services expenditure detailed in the Information Template.

Table 33 : Redland City Council's proposed Other Materials and Services expenditure

Service	Other Materials and Services Expenditure (\$'000)		
	2012-13	2013-14	2014-15
Drinking water	929.6	1,124.7	1,313.8
Wastewater via sewer	1,341.4	2,078.8	2,381.1
Total	2,271.0	3,203.5	3,694.8
% increase		41.1%	15.3%
Revised Expenditure			
Drinking water	1,230.7	1,124.7	806.4
Wastewater via sewer	1,678.4	2,078.8	2,381.1
Revised total	2,909.1	3,203.5	3,187.5
% increase		10.1%	-0.5%

Initially, Redland City Council proposed an increase in “Other Materials and Services” expense of 41% in 2013-14 and a further 15% in 2014-15. During the course of SKM’s investigations and discussions with Redland City Council, a revised total budget for Other Materials and Services was provided. Based on the revised total budget Redland City Council is proposing a 10% increase in Other Materials and Services for 2013-14 and a 0.5% reduction in 2014-15.

The change between the initial Information Template data and the Revised Template data for 2012-13 is understood to be due to a reclassification of costs. Redland City Council had reclassified some operating costs between “Other Materials and Services” and “Corporate”. However, Redland City Council has not stated the reasons for the initial proposed increase of 41%.

4.7.2 Provided documentation

The key reference documents used for this review are:

- QCA Information Requirements TemplatesV1.xls
- QCA Information Requirements TemplatesV3 post meeting adj.xls
- other material and services analysis.xls
- Queensland Treasury Corporation (QTC) Water Model
- Various Emails from Redland City Council responding the SKM queries and RFIs

4.7.3 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 Redland City Council to meet its service delivery obligations. SKM thus considered this expenditure to be prudent.

4.7.4 Efficiency

4.7.4.1 Calculation of costs

Redland City Council informed SKM that estimates for materials and services expenditure are generally based on historical information. While the budget for the immediate year is subject to detailed planning and costs are developed based on expected work requirements, the projections for future years are escalated by the expected inflation of that cost item.

The major issue with developing the 2012-13 expenditure was the incomplete data following the water and wastewater business return from Allconnex and the need to make assumptions during the transition period. SKM was informed by Redland City Council that the allocated 2012-13 expenditure also often did not comply with Council’s allocation policies or budget guidelines. However, Redland City Council has advised that the 2013-14 budget was subjected to more rigour and is based on the expected work load and consistent with Council’s budgetary principles. As a result, costs for Other Materials and Services are expected to rise by about 10%.

Redland City Council informed SKM that the 2014-15 budget was based on the 2013-14 budget. The revised costs indicate that for this year, the expenditure for Other Materials and Services is projected to reduce by 0.5%. No further explanations for the 2014-15 expenditure however have been provided.

In response to SKM's request for information, Redland City Council provided details of the 2012-13 and 2013-14 budget for Other Materials and Services for Water and Wastewater. Table 34 provides details of the expenditure items in this category for water services and Table 35 shows the detailed Other Materials and Services cost items for wastewater services. SKM notes that the actual 2012-13 expenditure provided in the detailed budget is materially different from that provided by Redland City Council in the Information Template. Whilst the total 2012-13 expenditure for Other Materials and Services is \$2,909,100 in the Information Template, the detail breakdown indicates that actual expenditure for 2012-13 is \$2,934,000, about 0.5% higher. However, the allocation between water and wastewater services shows larger variations. The difference in Other Materials and Services for 2012-13 water services amount to about 19% higher in the Information Template while for wastewater services the amount in the Information Template is some 11% lower.

Table 34 : Other Materials and Services expenditure – Water Services

Cost item	Actual 2012-13 (\$)	Budget 2013-14 (\$)	Difference (\$)	% change
Parts & Materials	389,019.3	449,199.0	60,179.7	15.5%
Ext Plant Hire	279,542.8	230,446.0	-49,096.8	-17.6%
General Insurance	96,285.6	99,692.0	3,406.4	3.5%
Traffic Control	54,821.8	85,000.0	30,178.2	55.0%
Printing - Ext	29,845.3	53,587.0	23,741.6	79.5%
internal tipping/gravel	717.6	24,989.8	24,272.2	3,382.4%
Fares Bay Is	18,571.9	23,265.0	4,693.1	25.3%
Publications		20,000.0	20,000.0	
Telephone/Facs	17,723.6	12,839.4	-4,884.3	-27.6%
Cleaning	180.6	12,377.0	12,196.4	6,754.4%
Software Support	508.0	10,913.8	10,405.8	2,048.4%
External Training	80.0	8,500.0	8,420.0	10,525.0%
Postage	4,866.2	7,918.3	3,052.1	62.7%
Concrete Supplies	4,063.7	6,363.0	2,299.4	56.6%
Safety Equipment	3,144.8	5,220.0	2,075.2	66.0%
Conf/Seminars		5,000.0	5,000.0	
Office Supplies	485.4	4,188.0	3,702.7	762.9%
Pipes & Bedding	16,534.3	1,643.0	-14,891.2	-90.1%
Landscape Supplies	6,704.6	834.0	-5,870.6	-87.6%
Floating Plant	1,078.0	500.0	-578.0	-53.6%
Property Lease	31,868.0	224.0	-31,643.9	-99.3%
Telecommunication	889.5	163.0	-726.6	-81.7%
Catering	135.6	133.0	-2.7	-2.0%
Freight & Handling	894.0	-	-894.0	-100.0%
Insurance excess	3,909.5	-	-3,909.5	-100.0%
Total Water Other Materials and Services	1,034,690.6	1,124,700.0	90,009.4	8.7%

Table 35 : Other Materials and Services expenditure – Wastewater Services

Cost item	Actual 2012-13	Budget 2013-14	\$ difference	% change
Property Lease	448,508.1	554,956.9	106,448.9	23.7%
General Insurance	250,343.1	416,863.5	166,520.5	66.5%
Ext Plant Hire	166,340.8	136,323.9	-30,016.9	-18.0%
Security	66,479.1	55,301.2	-11,177.9	-16.8%
Internal Tipping	5,450.1	43,387.0	37,936.9	696.1%
Software Support	23,502.0	32,934.9	9,433.0	40.1%
Cleaning	17,081.1	30,773.0	13,692.0	80.2%
Fares Bay Is	38,715.1	27,357.0	-11,358.0	-29.3%
Telephone/Facs	37,413.9	24,747.1	-12,666.8	-33.9%
Safety Equipment	32,885.4	24,094.8	-8,790.6	-26.7%
Internal Rates	22,880.4	22,800.3	-80.1	-0.3%
Publications		20,000.0	20,000.0	
Internal Worker	13,430.1	15,084.6	1,654.5	12.3%
Fire Levy	4,985.3	10,308.8	5,323.6	106.8%
External Training		8,500.0	8,500.0	
Conf/Seminars	-	5,000.0	5,000.0	
Concrete Supplies	753.5	4,333.9	3,580.4	475.1%
Printing – Int	7,166.8	4,102.5	-3,064.3	-42.8%
Office Supplies	261.9	4,068.0	3,806.1	1,453.3%
Pipes & Bedding	6,849.8	4,065.0	-2,784.8	-40.7%
Printing – Ext		3,000.0	3,000.0	
Internal Litter	2,340.2	2,828.0	487.8	20.8%
Garbage Collect		980.0	980.0	
Postage	522.9	972.1	449.2	85.9%
Internal Gravel	1,374.8	650.0	-724.8	-52.7%
Hardware Acquisition	2,186.5	505.0	-1,681.5	-76.9%
Computer Consumables	489.7	480.0	-9.7	-2.0%
Telecommunication	1,390.6	281.0	-1,109.6	-79.8%
Catering	121.7	24.0	-97.7	-80.3%
Internal Plant	10,011.2	-	-10,011.2	-100.0%
Freight & Handling	1,517.4	-	-1,517.4	-100.0%
Office Equipment	62.9		-62.9	-100.0%
WH&S	2,020.0		-2,020.0	-100.0%
Misc Expenses	335.5		-335.5	-100.0%
Total Wastewater Other Materials and Services	1,889,296.3	2,078,782.6	189,486.4	10.0%

Cost items like “Parts and Material”, “Plant Hire”, “Traffic Control”, “Pipes and Bedding”, “concrete”, “landscaping supplies” and Safety Equipment” show large projected increases. These costs are determined by operational

requirements and are dependent on the expected works to be carried out in the water distribution network and are based on estimates of the requirement of consumables needed for a particular work activity.

Other changes are in areas that provide support to the business including “software support” to support a new water planning software that has recently been installed and payment for new sewerage modelling licences. Various printing and publication costs have increased as additional publications are planned to inform customers of changes that have or will be occurring to their water services. Costs in printing are determined by the required print runs. The operating costs associated with the opening of new premises at Toondah Harbour had previously been charged generally to Council but in 2013-14 are charged directly to the water and wastewater services.

Some of the other changes in cost from 2012-13 to 2013-14 result from changes in classification. These include “property lease” which was reclassified as a wastewater service cost rather than a water service cost and “tipping/gravel”, which was classified as an external cost at Allconnex. On the transfer of the business to Redland City Council these costs were classified as “Corporate Cost” for the purpose of the 2012-13 budget while from 2013-14 onwards, they have been reclassified as a direct “internal” cost.

Finally some costs changes were due to the need to comply with Council’s budget guidelines. These include training costs and the cost of conferences and seminars. Council budget guidelines stipulate different training and development cost depending on staff members’ positions. These guidelines were not necessarily complied with in 2012-13.

SKM agrees with Redland City Council that the approach taken to develop the 2013-14 budget based on expected work requirements is appropriate especially since the 2012-13 expenditure data is unreliable and therefore cannot be used as a base cost from which to extrapolate future costs. Given that a more rigorous budgeting approach appears to have been implemented in 2013-14 SKM is of the view that the proposed 2013-14 budget is efficient.

Redland City Council has proposed in its revised set of costs that the 2014-15 budget for Other Materials and Services decrease by 0.5% from the 2013-14 budget. From other expenditure items provided in Redland City Council’s Information Template (electricity, corporate, sludge handling and chemicals), the escalation factor applied is either 2.1% or 2.5% (corporate cost). No reason has been given why the costs in 2014-15 for Other Materials and Services should fall by 0.5%. SKM notes that the Queensland Treasury Corporation model used to develop Redland City Council’s water and wastewater prices shows that for such materials and services, a 3% increase is projected.

Generally SKM expects that costs of Other Materials and Services would approximate the inflation rate seen in the community. As the 2014-15 expenses projections are based on 2013-14 budget such costs (together with chemical costs and bio-solids) should be escalated at the forecast rate of inflation. The Reserve Bank of Australia (RBA) Statement on Monetary Guideline provides a basis for inflation forecasts. As the RBA seeks to manage Australia’s economy so that in the medium term, inflation is within a 2% to 3% range, SKM recommends an escalation factor at the mid-point of this range, ie 2.5%.

SKM is of the view that the proposed reduction of 0.5% in Other Materials and Services for 2014-15 is not supported given the lack of details provided by Redland City Council for 2014-15. SKM recommends this increase be set at the mid-point of the RBA inflation target range of 2.5%.

In addition to this assessment of Other Materials and Services costs as proposed by Redland City Council, SKM also formed a view in our assessment of Corporate Costs that costs related to Parks and Fleet Expenses should be included not in Corporate Costs but rather, as these costs are direct operating costs, included as Other Materials and Services costs (see Section 4.4.1 and Table 14). Redland City Council has proposed that for 2013-14 expenditure for Parks remain at the same level as in the previous year before increasing by 3% for 2014-15. For Fleet costs, the proposed increases for 2013-14 and 2014-15 are 3% pa. No specific reasons have been given regarding why the proposed increases should be different from increases of 2.5% in other corporate level costs. Accordingly, SKM recommends reducing this increase to 2.5% consistent with other

corporate costs and the recommended increase in Other Materials and Services. The recommended expenditure for Parks and Fleet are shown in Table 36.

Table 36 : Parks and Fleet expenditure

Parks and Fleet expenditure	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
RCC Proposed			
Fleet Expenses	625.8	625.9	644.7
Parks	18.6	19.2	19.7
Total Parks and Fleet expenses	644.4	645.1	664.4
SKM Recommended			
Fleet Expenses	625.8	625.9	641.5
Parks	18.6	19.1	19.5
Total Parks and Fleet expenses	644.4	645.0	661.1

4.7.4.2 Market conditions

No specific information has been provided with which to assess the market conditions for Other Materials and Services. Redland 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.

4.7.4.3 Efficiencies and economies of scale

No specific efficiency target has been provided nor has Redland City Council stated how economies of scale are being addressed. Redland 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 may be achieved as the Council is a significant entity. However, SKM does note that Redland City Council is a relatively small council and greater economies may be achieved by co-ordinating its purchases with other similar councils to achieve greater purchasing power.

4.7.5 Summary

Redland 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 Redland City Council and is of the view that given the uncertainty in the context of the transition from Allconnex, the 2013-14 expenditure is efficient. (The exception is a slight recommended reduction in the expenditure of Parks proposed under corporate costs). 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 (including direct Parks and Fleet costs) be set at 2.5% consistent with the RBA inflation target. SKM's recommended expenses for Redland City Council's Other Materials and Services budget are as shown in Table 37.

Table 37 : Recommended Other Materials and Services expenditure

Other Materials and Services expenses	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
Proposed expenses			
• Other Materials and Services	2,909.1	3,203.5	3,187.5
• Parks and Fleet	644.4	645.1	664.4
Total Other Materials and Services	3,553.5	3,848.6	3,851.9

Other Materials and Services expenses	2012-13 (\$'000)	2013-14 (\$'000)	2014-15 (\$'000)
SKM recommended			
• Other Materials and Services	2,934	3,203.5	3,283.6
• Parks and Fleet	644.4	645.0	661.1
Total Other Materials and Services	3,568.4	3,848.4	3,944.7

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

Table 38 below classifies the documentation received and identifies any further information required to adequately review each section.

Table 38 : Other Materials and Services Expenses quality of information provided

Section of OPEX review	Documentation Status	Additional Information Required
Prudency		
Cost driver		
Efficiency		
Calculation of costs		To provide justification for the proposed 2014-15 expenditure.
Economies of scale		Provide additional information discussion potential economies of scale that may be achieved
Market conditions		Provide additional information discussing market conditions faced by Redland City Council
Saving targets		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 operating expenses budget submitted by the Redland City Council is not robust. This is largely due to the transition from Allconnex as the quality and quantity of information accompanying the transfer was lacking. The 2013-14 budget however does appear to be more robust as they were based on information and parameters set by Council.

SKM recommends a small adjustment to the water and wastewater employee cost budget proposed by Redland City Council based on a higher vacancy factor. SKM has also recommends increasing the employee expenses growth rate for 2014-15 to account for the higher superannuation contribution. SKM notes that the contractor employee expenses are efficient and there are no changes proposed.

SKM found that Redland City Council electricity expenses forecast not to be in keeping with good industry practice and therefore insufficiently robust to rely on for the formation of electricity cost budgets. SKM acknowledges that Redland 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 Redland City Council and as a result, a number of expenses for the 2012-13 have either not been invoiced or are being disputed. The need to make adjustments associated with the transition from Allconnex makes estimating future expenditure more uncertain.

SKM is of the opinion that the Redland City Council estimate of about 3% price increase for 2013-14 (based on an examination of the QTC model which applies 0.25% per month increase for electricity costs) is too low 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.

For the 2014-15 forecast, SKM is of the view that load growth needs to be taken into consideration in estimating the cost of electricity together with any likely price increases. As the AEMC has estimated that the annual increase between 2012-13 and 2014-15 at 4% pa, SKM recommends applying this increase to Redland City Council's 2014-15 electricity prices.

As a result of a lack of information, SKM is of view that the electricity expenses proposed by Redland City Council are not efficient.

SKM has assessed the proposed Other Materials and Services expenditure for Redland City Council and is of the view that given the uncertainty in the context of the transition from Allconnex, the 2013-14 expenditure is efficient. However, there is not sufficient information to make the same assessment for 2014-15. Given the lack of detailed information, SKM recommends that the 2014-15 budget increase for Other Materials and Services be set at 2.5% consistent with the RBA inflation target.

SKM has assessed the proposed corporate costs expenditure for Redland City Council. SKM considers that the Council's corporate costs budgets are prudent but not efficient. From analysis, corporate costs, as a proportion of total operating costs, are double what they were in Allconnex Water. The cost escalation factor used by the entity for both 2013-14 and 2014-15 budgets is approximately 3%. SKM considers that a cost escalation factor of 2.5% which aligns with the Council's Certified Agreements is more reasonable. SKM recommends that the 2014-15 budget increase for corporate costs be reduced by 0.5% to 2.5%, consistent with the RBA inflation target.

4.8.1 Recommended adjustments to operational expenditure

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

- Corporate Costs – a reduction of \$367,000 in 2013-14 and \$371,000 is recommended by decreasing labour costs, neutrality costs and the cost escalation factor.
- Employee Expenses – a reduction of \$142,300 is recommended in 2013-14, and a reduction of \$131,600 for employee expenses. Contractor costs are considered efficient.
- Electricity - SKM is of view that the electricity expenses proposed by Redland City Council are not efficient. SKM is of the view that Redland City Council has underestimated its likely electricity expenditure for 2013-14 and 2014-15 by not accounting for any load growth nor likely price increases. SKM recommends that the expenditure for 2013-14 be increased by \$83,000 and for 2014-15 by \$186,000
- Other Materials and Services - SKM is of the view that the 2013-14 other materials and services expenses is efficient however it is recommended that the 2014-15 expenses increase be set at 2.5% consistent with the RBA inflation target.

Table 39 : Summary of reductions to 2013-14 operating expenditure forecast (nominal \$)

Category	2013-15 submission (\$'000)	Recommended reduction (\$'000)	Revised 2013-14 budget (\$'000)	Variance
Corporate Costs	6,388.00	-367.00	6,021.00	-5.75%
Employee Expenses ¹³	5,854.10	-142.30	5,711.80	-2.43%
Electricity	1,715.70	82.80	1,798.50	4.83%
Other Materials and Services ¹⁴	3,848.60	-0.20	3,848.40	-0.01%
Total 2013-14 forecast¹⁵	43,864.40	-426.70	43,437.70	-0.97%

¹³Employee expenditure in this table does not include contractor costs

¹⁴Other materials and services also includes parks and fleet costs

Table 40 : Summary of reductions to 2014-15 operating expenditure forecast (nominal \$)

Category	2013-15 submission (\$'000)	Recommended reduction (\$'000)	Revised 2014-15 budget (\$'000)	Variance
Corporate Costs	6,568.00	-371.00	6,197.00	-5.65%
Employee Expenses ¹⁶	6,000.40	-131.60	5,868.80	-2.19%
Electricity	1,751.70	186.40	1,938.10	10.64%
Other Materials and Services ¹⁷	3851.90	92.80	3,944.70	2.41%
Total 2014-15 forecast¹⁸	47,781.8	-223.40	47,558.40	-0.78%

¹⁵ There are other categories included in the total 2013/14 forecast, and therefore these values are not the summation of the individual categories shown

¹⁶ Employee expenditure in this table does not include contractor costs

¹⁷ Other materials and services also includes parks and fleet costs

¹⁸ 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 prudence and efficiency of Redland City Council's proposed capital expenditure for the 2013-15 financial years. The section includes the following sub-sections:

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

5.1 Overview of capital expenditure

The Authority required that to assess the prudence of capital expenditure, Redland 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.

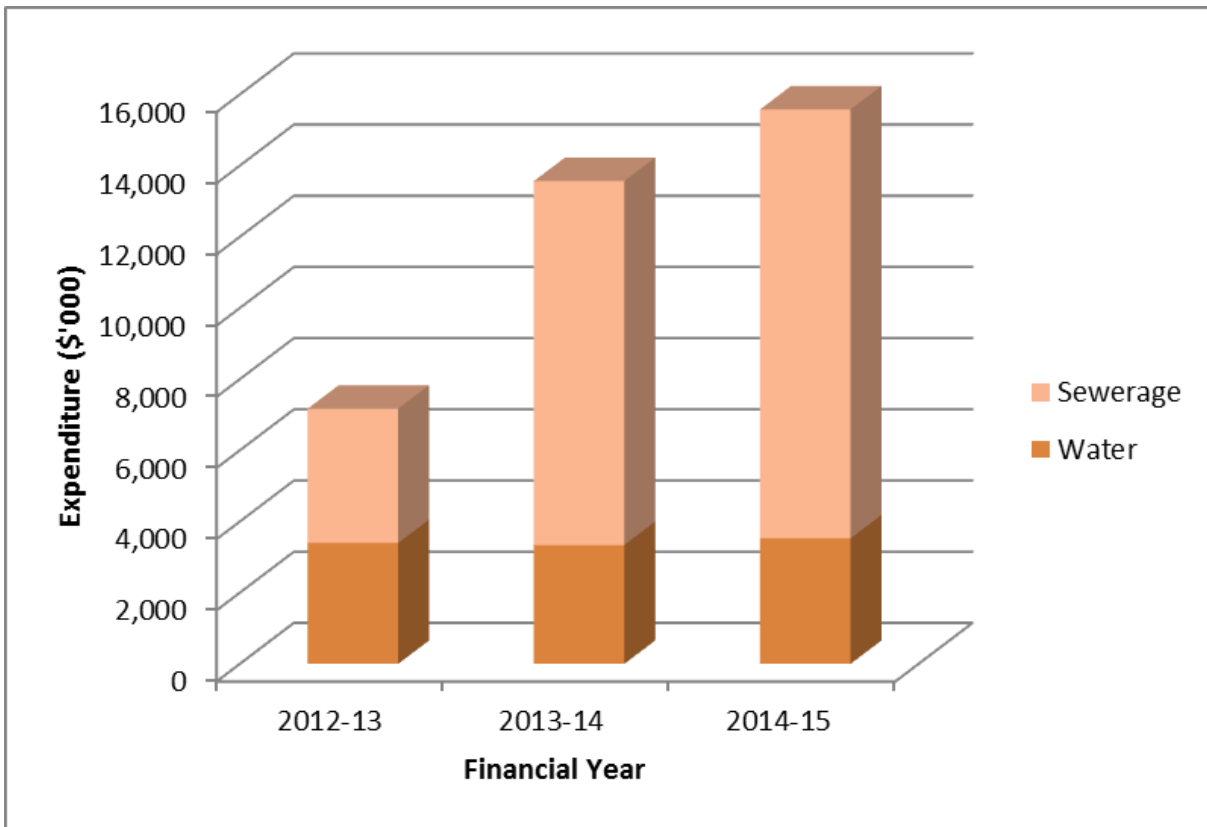
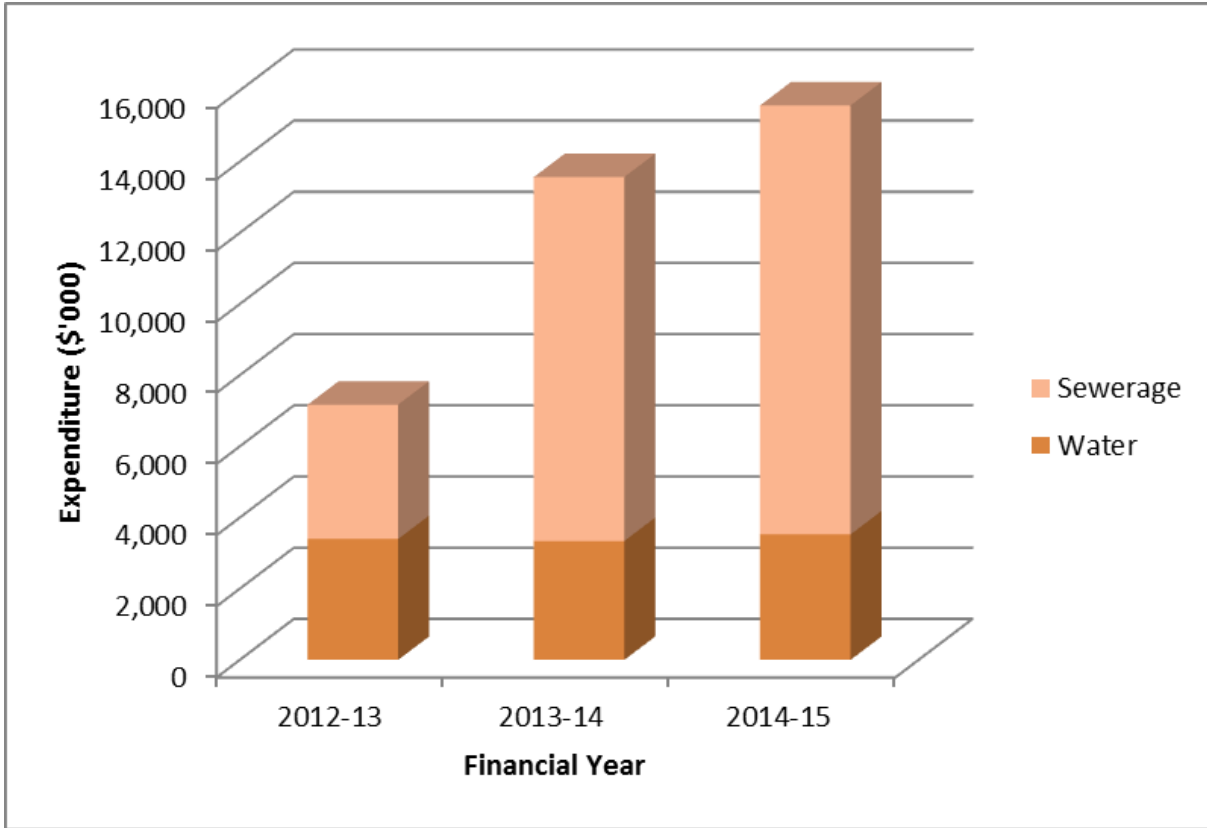
Redland City Council has reported of \$29 million budgeted expenditure in the two years to the end of the financial year 2014-15.

Table 41 : Capital Expenditure (Source: 5.6.1 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template)

Product	2013-14 (\$ M)	2014-15 (\$ M)	Total (\$ M)	Total (%)
Water	3.34	3.52	6.87	24%
Sewerage	10.23	12.05	22.28	76%
Total Capital expenditure	13.57	15.58	29.15	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.

Figure 5-1 : Forecast capital expenditure for 2012-13 to 2014-15 by product (Source: 5.6.1 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template)



A breakdown of the total expenditure product is shown in Table 42.

Table 42 : Capital expenditure - by product (Source: 5.6.1 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template)

Product	2012-13 (\$ M)	2013-14 (\$ M)	2014-15 (\$ M)	Total (\$ M)
Water	3.40	3.34	3.52	10.26
Sewerage	3.78	10.23	12.05	26.06
Total	7.17	13.57	15.58	36.32

Review of the expenditure by region and product reveals that:

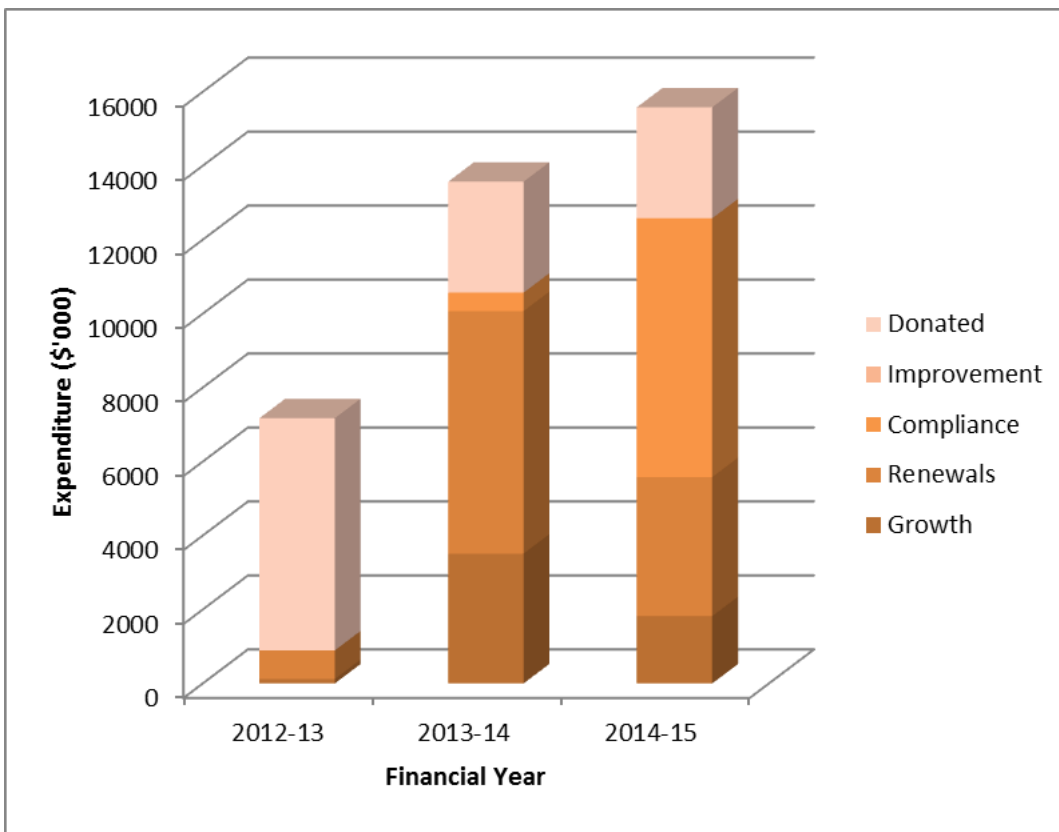
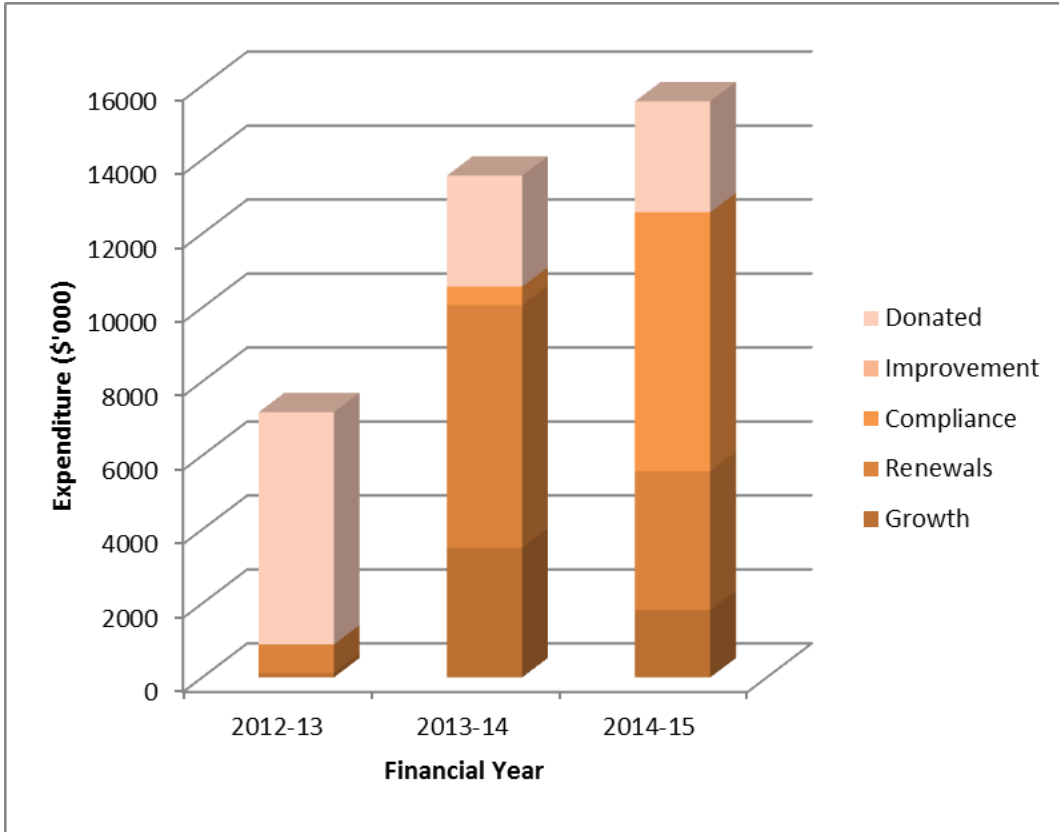
- The majority (75%) of expenditure over the three year reported period is incurred in respect of sewerage assets; water supply assets account for the remaining further 25%
- In 2013-14 the proposed expenditure aligns with the three year reported period. There is a slightly greater focus on sewerage services in 2014-15 with an increase to 77% of the total capital expenditure; this is offset by a reduction in expenditure proportioned to water supply assets (23%)

The allocation of capital expenditure incurred in relation to each of Redland City Council's drivers is shown in Table 43 and Figure 5-2. SKM notes that Redland City Council has a driver called "new". SKM has assumed that this is comparable to the Authority's driver of "growth".

Table 43 : Capital expenditure - by driver (Source: 5.6.1 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template)

Driver	2012-13 (\$ M)	2013-14 (\$ M)	2014-15 (\$ M)	Total (\$ M)
Growth	0.12	3.51	1.82	5.44
Renewals	0.78	6.56	3.76	11.10
Compliance	0.00	0.50	7.00	0.00
Improvement	0.00	0.00	0.00	0.00
Donated	6.28	3.00	3.00	12.28
Total	7.17	13.57	15.58	36.32

Figure 5-2 : Forecast capital expenditure for 2012-13 to 2014-15 by driver (Source: 5.6.1 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template)



Review of the expenditure by region and product reveals that, excluding donations:

- Expenditure over the three year reported period is principally driven by renewal (46%) with also compliance making up a significant portion (31%) and growth making up the remaining 22%. SKM notes that no expenditure has been allocated to the improvements driver
- For 2014-15, there is a greater focus on compliance (56% compared to 5% in 2013-14) mainly due to the Point Lookout WWTP Project.

The dominance of compliance related projects in 2014-15 is in-consistent with other water entities reviewed by SKM, where the majority of projects are generally driven by growth and renewals. However, as indicated above, the percentages are affected by a single large compliance driven project, the \$15M Point Lookout WWTP Project.

5.2 Sample selection

A sample of capital expenditure projects and programmes was selected by the Authority for detailed analysis. Redland City Council has a ten year price path. As such, the Authority selected the highest four non-renewals projects by dollar value, plus the two highest value renewals programmes by dollar value, over the period 2013-23.

The capital expenditure projects and programmes chosen for review are shown below in Table 44.

Table 44 : Ten year expenditure profile ('Copy of 10 year capex report additions combined.xls')

Project	Expenditure (\$'000)										
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Point Lookout WWTP Upgrade	500	14,500	0	0	0	0	0	0	0	0	15,000
Sewerage Pump Station No. 6	3,931	0	0	0	0	0	0	0	0	0	3,931
Benfer Rd DMA Network Upgrade	0	193	773	0	0	84	336	0	476	1,904	3,766
Pumps	359	369	381	392	404	416	428	441	454	468	4,112
Meter Replacement Programme	308	317	326	336	346	357	367	378	390	401	3,525
Redland Mainland WSS Network Upgrade	811	283	556	181	335	19	7	28	1,016	0	3,236
Total	5,909	15,662	2,036	909	1,085	876	1,138	848	2,336	2,773	33,569

SKM's review focused on expenditure for the review period (2013 to 2015).

Table 45 : Capital expenditure programmes reviewed ('Copy of 10 year capex report additions combined.xls')

Project Name	Primary Driver/s	2013-14 (\$'000)	2014-15 (\$'000)	Total (\$'000)
Point Lookout WWTP Upgrade	Compliance	500	14,500	15,000
Sewerage Pump Station No. 6	Growth and Renewals	3,931	0	3,931
Benfer Rd DMA Network Upgrade	Renewals	0	193	193
Pumps	Renewals	359	369	728
Meter Replacement Programme	Renewals	308	317	624

Project Name	Primary Driver/s	2013-14 (\$'000)	2014-15 (\$'000)	Total (\$'000)
Redland Mainland WSS Network Upgrade	Renewals	811	283	1,093
Total Sample (6 Projects)		5,909	15,662	21,569

5.3 Detailed Investigations

The findings of the detailed investigations for each of the projects or programmes 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 Point Lookout WWTP upgrade

Wastewater treatment at Point Lookout, North Stradbroke Island, is provided by three independent package treatment plants (one of concrete and two of steel construction) which operate in parallel. The package treatment plants are more than 20 years old, have been stated by Redland Council as having reached the end of their economic life and are in poor condition. The scope of this project is the construction of a new treatment plant.

SKM considers that growth and compliance are the appropriate drivers for the project as the plant is overloaded during peak holiday periods and Redland City Council has made a commitment to the DEHP to undertake a plant upgrading to remedy current deficiencies. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work appropriate for the purpose described. SKM believes that MBR is the most cost effective process selection for facilities of this type. This technology has been tested in the market place recently with Goodna STP, Ballina STP, Nambour STP, Sarina WRF and Maleny STP all being MBR facilities. The retention of the existing site provides a significant cost saving and is realistic for a MBR plant, which requires less footprint. As such SKM concludes that the project is prudent.

SKM considers that the D&C procurement model that is proposed takes advantage of the current competitive market conditions and is suited to the relatively low project risk profile associated with the size and type of facility required. SKM notes that the proposed start-up of the plant is not until May 2016, which is outside of the review period. As expenditure can only be included in the RAB once the plant is complete, operational and delivering a regulated service, SKM considers that all expenditure should be included in the RAB in the year of completion of the project, ie in 2016.

SKM is of the view that the \$18.5 million cost estimate for the proposed option is in line with, but on the low side of, current market expenditures for similar sized and performing facilities (eg the 8,000 EP Sarina WRF which cost approximately \$25 million, and the 9,000 EP Maleny STP which cost approximately \$19 million). It is noted that an appropriate factor has been applied for remote works at Stradbroke Island; however some direct costs appear low, resulting in a slightly low estimate. SKM notes that the budget value of \$15 million (originally submitted by Redland City Council to the Authority) is lower than the project cost of \$18.9 million (as per the Water Strategies report). SKM considers the \$18.9 million to be slightly on the low side of with market conditions, however within 30 percent of the budget estimate (\$15 million). SKM recommends that the lower number (\$15 million) is adopted in the RAB in the year the asset is operational.

SKM recommends that a portion of the costs be deferred to reflect the proposed expenditure profile. As the completion and commissioning of the project is outside of the review period, SKM suggests that the expenditure be removed from the current review period (2013-15).

5.3.2 Sewerage Pump Station No. 6

Sewage Pump Station 6 (SPS6) is located at the Cleveland Showgrounds and is one of two major collection points for sewage treated at Cleveland Sewage Treatment Plant (STP). Sewage is pumped to the STP via a 450 diameter asbestos concrete (AC) rising main with the assistance of booster pump station SPS 128.

It was identified that SPS6 and the associated rising main do not have sufficient capacity to deliver ultimate flows to Cleveland STP. In order to cope with these future flows, a consultant was commissioned to investigate options and subsequently produce a detailed design for the upgrade of SPS6 and the associated rising main.

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that the construction of the new rising main had been completed, almost two years ago, but cannot be commissioned until the new pump station has been constructed.

The outcome of the project will be an upgraded pump station which will enable the sewerage system to cater for increasing loads from the upstream catchment with minimisation of overflows. The new pumps will replace the aging existing pumps; provide greater reliability and improved operator working conditions and safety.

SKM considers and agrees with Redland City Council that growth and renewal are the appropriate drivers for the project as the pump station is under capacity for peak wet weather flows. Predicted population growth in the catchment will further exacerbate the situation. SKM concludes that the project is prudent.

SKM considers that the project will be able to be delivered within the review period, 2013-15.

The average dry weather flow (ADWF) of 230 L/EP/day adopted in the *Basis of Design* is excessive when compared to that specified in the *SEQ Water Supply and Sewerage Design and Construction Code*, 200 L/EP/d. However, given the timing of the development of the *Basis of Design Report* SKM considers that it is appropriate. SKM recommends that the revised ADWF be adopted in all future investigations.

SKM finds the costs of the project to be efficient.

5.3.3 Benfer Rd DMA network upgrade

Redland Water's Network Master Plan for the water supply network indicates that augmentation of the trunk mains in the Benfer Road District Meter Area (DMA) is required in order to maintain Redland City Council's Peak Hour and Fire Flow Desired Standards of Service (DSS).

The Benfer Road DMA is a relatively long and narrow DMA. The bulk of the DMA follows Benfer Road to Link Road and includes customers either side of the Benfer Road in that stretch. From there, the DMA follows Colburn Avenue to Victoria Point itself, but only includes customers on the southern side of Colburn Avenue. The DMA also includes the submarine crossing and supply to Coochiemudlo Island and a small area west of Cleveland – Redland Bay Road.

The works proposed to be completed in the review period are:

- Giles Road to Double Jump Road augmentation (1,187 m of 375 mm diameter water main)
- Masters Avenue augmentation to start of Coochie submarine pipeline (196 m of 200 diameter water main)

SKM considers that based on the information provided, growth would be a more appropriate driver for the project. Given that due to population increases sections of the network are not meeting peak hour pressures and therefore fire flow provision required under 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) SKM concurs that an appropriate methodology has been used for the identification of sections of the water network requiring augmentation. SKM concludes that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM find the project to be prudent.

SKM considers the use of the Engineering Consultancy Panel for the completion of the design work to be appropriate. SKM believes that the completion of the construction works by contractors appropriate given that internal staff will not always be available to undertake the works. SKM concludes that the scope of work will not be completed within the review period and therefore the expenditure should only be included once the work has been completed and commissioned.

SKM is of the opinion that the development of cost estimates based on unit rates from unit rates and recently completed projects is acceptable. SKM considers the cost estimate for the project to be to be efficient.

The project will be completed outside of SKM's review period. The costs should only be included into the RAB once the project has been completed and commissioned.

5.3.4 Pumps

The pumps project involves the replacement of pumps due to condition, age and obsolescence.

SKM considers and agrees with Redland City Council that renewal is the appropriate driver for the project as the majority of the pumps have reached the end of their useful life and failure to replace could result in licence non-compliances as well as uneconomic maintenance costs. SKM agrees that there a large number of pumps within the Redland City Council fleet that are beyond their nominal 15 year pump life and that the specification for the new pumps are well documented. SKM considers that the process used for the development of programs of work, based on age, condition, hydraulic performance and risk to the organisation, to be appropriate and in line industry practice. SKM finds that the proposed programmes to be prudent.

SKM considers that the process used for the purchase of pumps to be appropriate given that the four suppliers were invited to tender for the works. SKM believes that the installation of the pumps by internal crews or contractors as required is appropriate given that internal staff will not always be available to undertake the works. SKM recommends that an investigation should be undertaking in to the potential cost savings associated with the bulk purchase of required pumps and the costs associated with storage and inventory to determine if efficiency gains can be made.

SKM considers that the use of quotes and tenders and unit rates from recent similar projects is an appropriate process for the development of forward budgets. SKM finds the costs to be efficient.

5.3.5 Meter replacement programme

Redland City Council owns and maintains a total of over 51,000 residential and non- residential meters. Water meter replacement is carried out against a range of replacement parameters. Redland City Council has an obligation to measure water consumption through the provision and maintenance of accurate water meters in order to provide an account that states the volume of water supplied through the meter during a billing period. This obligation requires Redland City Council to maintain a fleet of accurate water meters and to ensure any damaged, stopped or old water meters are replaced in a timely manner. It is noted that the Meter Replacement Programme is being managed by Redland City Council, not by Redland Water.

Implementation of a water meter replacement strategy will aid the prevention, detection and recovery of water losses. The replacement programme will continually replace old and high usage meters which generally lose accuracy over time and usage, resulting in under-registration of the actual volume passed through the meter resulting in revenue loss for Redland City Council.

SKM considers that renewal is the appropriate driver for the project given the legislative requirements and the need to replace assets beyond their useful life. SKM is satisfied that the process by which water meters requiring renewal are identified is appropriate and that it is in-line with the approach adopted by other, comparable entities. Based on comparison of the age of the 20 mm meters indicated in the *Water Meter Replacement Strategy* and the number of meters proposed to be replaced in the 2013-14 and 2014-15 programmes, SKM does not consider that all of the 20 mm meters in the meter renewal programme will have reached the age replacement trigger. No additional information has been provided by Redland City Council to enable SKM to determine if the meters have reached the consumption replacement trigger or if testing to the Australian standard has indicated that a certain type of meter has failed the testing requirements and therefore is in need of replacement. As such SKM concludes that the full scope of works proposed by Redland City Council is not prudent.

No documentation has been provided by Redland City Council in relation to how the meter supply and installation contracts have been tendered, evaluated and awarded. As such SKM cannot comment on the appropriateness of the tendering process. Nevertheless, SKM considers that the scope of works can be delivered within the proposed timeframe with the utilisation of internal crews and contractors as needed.

Based on the low unit rates used by Redland City Council, SKM finds the costs of the programme to be efficient. Overall, SKM find the project to be partially prudent and efficient.

5.3.6 Redland Mainland WSS network upgrade

Redland Water's Master Plan for the water supply network indicates that upgrades of the water supply network are required at various locations within the Redland Mainland Water Supply Scheme (WSS). The augmentations are required in order to maintain Redland Water's Peak Hour and Fire Flow Desired Standards of Service. 2013-14 is the fourth year of the programme.

SKM considers that growth and renewal are the appropriate drivers for the project given that sections of the network are not meeting fire flow provision and peak hour pressures required under the *SEQ Water Supply and Sewerage Design and Construction Code*. SKM considers that an appropriate methodology has been used for the identification of sections of the water network requiring augmentation and development of the scope of works. As such SKM considers that the project is prudent.

SKM considers the use of the Engineering Consultancy Panel for the completion of the design work to be appropriate, if tendered. For contracts under \$15,000, given that only one verbal quote is required; there is insufficient information to determine if an efficient process is being applied.

SKM has undertaken a review of the information provided on undertaking construction works in house. On the basis of the limited information provided, SKM considers the use of internal staff as the first option the most efficient method for the delivery of construction works. SKM considers the completion of the construction works by internal crews or contractors as required to be appropriate given that internal staff will not always be available to undertake the works.

SKM believes that the use of the escalated values from the *GCW Unit Rates Report* is appropriate, as long as they are reviewed against actual costs as projects are completed to check they align with market conditions.

SKM concludes that the cost estimate for the works to be completed in 2013-14 and 2014-15 are efficient.

5.4 Overall sample capital project review summary

A sample of six projects was assessed as a representative sample of the capital expenditure programme Redland City Council for the 2013-15 period. These projects have been assessed these against the Authority's definitions of prudence and efficiency, including the scope of work, standards of service, timeliness of delivery and the project costs.

Table 46 provides an overview of the final assessment made for each project or programme.

Through the detailed review of the six sampled projects a number of issues have been identified. These issues as discussed as below.

In all projects reviewed, there was a general lack of documented information supporting the project initially provided to SKM. In particular, this included a lack of definition regarding the project scope of work and inconsistencies between the supporting information and the proposed budget.

In response to SKM's draft report, Redland City Council stated that: *"it must be pointed out that the structure of Redland City Council dictates that projects are not initiated, planned, designed and delivered by separate teams. Redland City Council uses an integrated project delivery approach. As has been demonstrated the more*

detailed information relating to the scope of projects is maintained in documents that are not part of the budgetary submission documents”.

SKM recommends that in future price monitoring submissions, detailed information pertaining to the scope of the works is provided to the Authority to assist in the review of projects.

Many of the projects under review are in the initial stages of design. At the Redland Price Monitoring Review Meeting (Redland City Council, 17 October 2013) it was suggested that Allconnex had not invested significantly in the Redlands area. Whilst there is some evidence of this (for example, in the SPS6 Project, the rising main was completed two years ago, but this is not able to be used as the pump station is not yet completed) there has also been a general decline in the rate of growth forecasted, which may account for projects being delayed (for example, the Benfer Road Project, which has been deferred). As a result of the early stage of most projects, SKM has only been able to review a limited amount of design and construction documentation.

There is a general lack of evidence of competitive tendering both of design and construction work. SKM notes that Redland City Council is a relatively small entity and as such, has a smaller capital works programme than all of the other entities under review, with the exception being the Point Lookout WWTP Project, which forms half of the entire programme of works for 2013-15. As a result, a number of the capital projects are low value.

As discussed in Section 3.2.11, Redland City Council's procurement system identifies the limits for which quotations from multiple parties are required. SKM notes that there is an Engineering Consultancy Panel in place, and from discussion with Redland City Council, SKM understands that this is the intended method for procuring consultancy work. Given the early stages of the projects under review, no evidence of this process has been presented.

Following the issue of SKM's draft report, Redland City Council provided further details of the Engineering Consultancy Panel. Consultants were invited to tender following the issue of an Invitation to Tender.

“Submissions for the panel were assessed against the following criteria:

- *Schedule of rates/prices*
- *General operational capability - corporate/organisation structure*
- *General operational capability - software capability*
- *Company experience with projects*
- *Quality accreditation/certification.*

Price is assessed in the initial establishment of the panel and then in accordance with Redland City Council's procurement processes”.

SKM finds the above approach to be appropriate and in keeping with good industry practice.

For four of the six projects reviewed, Redland City Council indicated that the construction works would be undertaken by internal staff as a preference. At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that the decision to go with internal crews or contractors is dependent on the availability of internal crews, the risks associated with the works and the location of the work (ie. if work is to be undertaken on North Stradbroke Island internal crews would generally be used).

In answer to a request for a comparison of internal construction costs versus competitively tendered construction works, Redland City Council provided a breakdown of costs for a number of metering projects completed in 2009 to 2012. The cost breakdowns were for project under a series of different delivery mechanisms; by an external D&C contract (four projects); external design then external construct (six projects); and external design then internal construct (one project). A comparison of the cost per metre of pipeline constructed shows that the internal construction costs are materially cheaper than the other two options. Full details are provided in Appendix E. SKM notes that only one internal construction costs was provided in the

sample, and therefore may not be representative. SKM recommends the monitoring of construction rates continues to be undertaken to allow benchmarking of the internal staff costs against work delivered by external parties on the basis of competitive tendering.

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

"While it is acknowledged that there is only one example on the spreadsheet for internal construction crews and that ideally more projects are required for a complete assessment to be undertaken, construction by internal crews was not an Allconnex philosophy but rather the D&C method was preferred. Consequently we don't have an additional 2 years' worth of data to verify the preferred construction delivery method.

Redland City Council considers that the information that we gained through the Allconnex preferred delivery method is sufficient to justify not using a D&C approach for pipelaying and is also an argument for not necessarily bundling of smaller projects into a larger contract to try and "achieve economies of scale". The Allconnex Water D&C pipelaying project was a bundled contract for watermain laying up to 300mm diameter across the whole of the Allconnex service region and prices were not cheaper. It is therefore shown that the bundling of projects as opposed to single project delivery by Redland City Council is not necessarily a preferred option either".

With regards to future construction works, SKM understands that Redland Water has gained Redland City approval for a procurement plan to utilise four pre-approved construction companies that have been completely selected from a publicly advertised field of 27 companies. No further information was provided to SKM on this topic.

No standardised approach to cost estimation is documented by Redland City Council. The Water Supply Network Master Plan Northern District (Allconnex Water, May 2011) recommends the use of a contingency allowance of 20% for existing infrastructure and 30% for future infrastructure. It also recommends an administrative allowance of 20% for on-costs (such as survey, planning, design, supervision and contract administration).

Based on 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. SKM considers the use of a 30% contingency allowance for master level infrastructure planning and a 20% contingency allowance for detailed planning to be in line with general industry standards. In SKM's opinion, the contingency applied should decrease as the design progresses, decreasing to between 5 to 10% in the construction phase.

Table 46 : Overview of prudence and efficiency of capital expenditure sample selection (costs as incurred)

Project Name	Assessment			Redland City Council Proposed [†] (\$'000)		Proposed Adjustment (\$'000)		SKM Recommended (\$'000)	
	Prudent	Efficient	Comment	2013-14	2014-15	2013-14	2014-15	2013-14	2014-15
Point Lookout WWTP Upgrade	✓	✘	Whilst SKM finds the value of the works to be efficient, SKM suggests that the expenditure be deferred until 2015-16 to reflect the proposed expenditure profile and only added to the RAB once the works are commissioned.	500	14,500	0	-7,500	500	7,000
Sewerage Pump Station No. 6	✓	✓	Prudent and efficient	3,931	0	0	0	3,931	0
Benfer Rd DMA Network Upgrade	✓	✓	SKM suggests that the expenditure be deferred until 2015-16 once the works are commissioned.	0	193	0	0	0	193
Pumps	✓	✓	Prudent and efficient	359	369	0	0	359	369
Meter Replacement Programme	✘	✓	Partially prudent as not all meters will require replacement due to age. Efficient due to the low unit rates used, even with reduced scope of works proposed.	308	317	0	0	308	317
Redland Mainland WSS Network Upgrade	✓	✓	Prudent and efficient	811	283	0	0	811	283
Total				5,909	15,662	0	-7,500	5,909	8,162

[†] Source: 'Copy of 10 year capex report additions combined.xls'

5.5 Asset Lives

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

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 Redland City Council's submission to the Authority. Asset lives for new assets are shown in Table 47.

Table 47 : Asset lives for new assets

Asset	Drinking water	Wastewater via Sewer
Reservoirs	80	80
Pump stations	60	60
Treatment	0	0
Associated telemetry and control systems	10	10
Meters	15	0
Sundry property, plant and equipment	20	10
Building other than infrastructure housing	50	50
Mains	50 to 90	40 to 100

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 48 presents benchmarks of selected asset lives and a comparison with those used by Redland City Council.

Table 48 : 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 50 to 90 year asset life for water infrastructure and a 40 to 100 year asset life for wastewater infrastructure are 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 an 80 year asset life appears high, however, from our experience many reservoirs are in service for longer than 50 years.

Asset	Benchmark	Comment
Treatment	No combined treatment asset life is provided.	Treatment consists of a number of civil, mechanical and electrical assets. No assumption of asset life has been provided for treatment.
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 60 year asset life for water and wastewater pump stations appears high.
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.

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 Redland 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 49 : Review of effective life

Asset	Drinking water	Wastewater via Sewer	Revised Effective Life (Tax) [†]
Reservoirs	80	80	80
Pump stations	60	60	25
Treatment	-	-	Comprised of a number of individual assets
Associated telemetry and control systems	10	10	10
Meters	15	-	20
Mains	50 to 90	40 to 100	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's 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. 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. SKM notes that no assumption on the asset life for treatment was provided Redland City Council.

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 would be 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 Redland City Council as the provision of tax advice. Therefore, although SKM can comment on the fact that effective lives do not correlate to TR 2013/4 Taxation Ruling guidance; it is recommended that Redland City Council seeks guidance from its accountants/auditors regarding estimates of effective asset lives for tax purposes.

6. Conclusions and recommendations

6.1 Policies and procedures

The following table summarises the conclusions drawn from SKM's review of Redland Council's policies and procedures

Table 50 : Policies and Procedures Review Summary.

Requirements	Capital expenditure policies and procedures	Operating expenditure policies and procedures
Has a standardised approach to cost estimating	Not compliant	Not applicable
A summary document is prepared	Not compliant	Not applicable
An implementation strategy is prepared	Not compliant	Not applicable
Has a gateway review process	Not compliant	Not applicable
Includes detailed analysis of options for major projects	Compliant and robust	Not applicable
Has a benefits realisation assessment process	Compliant and robust	Not applicable
Includes requirements to comply with relevant legislation	Not compliant	Not compliant
Includes requirements to take account of regional issues.	Not compliant	Not compliant
Only commissioned capital expenditure from 1 July 2010 is included in the RAB	Compliant	Not applicable
Overall capital expenditure programme and delivery processes	Not compliant	Not applicable
Asset management in accordance with good industry practice	Not compliant	Not compliant
Procurement in accordance with good industry practice	Not compliant	Not compliant
Budget formation in accordance with good industry practice	Not compliant	Compliant

6.2 Operating costs

In general, SKM is of the opinion that the 2012-13 operating expenses budget submitted by the Redland City Council is not robust. This is largely due to the transition from Allconnex as the quality and quantity of information accompanying the transfer was lacking. The 2013-14 budget however does appear to be more robust as they were based on information and parameters set by Council.

SKM recommends a small adjustment to the water and wastewater employee cost budget proposed by Redland City Council based on a higher vacancy factor. SKM has also recommends increasing the employee expenses growth rate for 2014-15 to account for the higher superannuation contribution. SKM notes that the contractor employee expenses are efficient and there are no changes proposed.

SKM found that Redland City Council electricity expenses forecast not to be in keeping with good industry practice and therefore insufficiently robust to rely on for the formation of electricity cost budgets. SKM acknowledges that Redland 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 Redland City Council and as a result, a number of expenses for the 2012-13 have either not been invoiced or are being disputed. The need to make adjustments associated with the transition from Allconnex makes estimating future expenditure more uncertain.

SKM is of the opinion that the Redland City Council estimate of about 3% price increase for 2013-14 (based on an examination of the QTC model which applies 0.25% per month increase for electricity costs) is too low 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.

For the 2014-15 forecast, SKM is of the view that load growth needs to be taken into consideration in estimating the cost of electricity together with any likely price increases. As the AEMC has estimated that the annual increase between 2012-13 and 2014-15 at 4% pa, SKM recommends applying this increase to Redland City Council's 2014-15 electricity prices.

As a result of a lack of information, SKM is of view that the electricity expenses proposed by Redland City Council are not efficient.

SKM has assessed the proposed Other Materials and Services expenditure for Redland City Council and is of the view that given the uncertainty in the context of the transition from Allconnex, the 2013-14 expenditure is efficient. However, there is not sufficient information to make the same assessment for 2014-15. Given the lack of detailed information, SKM recommends that the 2014-15 budget increase for Other Materials and Services be set at 2.5% consistent with the RBA inflation target.

SKM has assessed the proposed corporate costs expenditure for Redland City Council. SKM considers that the Council's corporate costs budgets are prudent but not efficient. From analysis, corporate costs, as a proportion of total operating costs, are double what they were in Allconnex Water. The cost escalation factor used by the entity for both 2013-14 and 2014-15 budgets is approximately 3%. SKM considers that a cost escalation factor of 2.5% which aligns with the Council's Certified Agreements is more reasonable. SKM recommends that the 2014-15 budget increase for corporate costs be reduced by 0.5% to 2.5%, consistent with the RBA inflation target.

6.2.1 Recommended adjustments to operational expenditure

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

- Corporate Costs – a reduction of \$367,000 in 2013-14 and \$371,000 is recommended by decreasing labour costs, neutrality costs and the cost escalation factor.
- Employee Expenses – a reduction of \$142,300 is recommended in 2013-14, and a reduction of \$131,600 for employee expenses. Contractor costs are considered efficient.
- Electricity - SKM is of view that the electricity expenses proposed by Redland City Council are not efficient. SKM is of the view that Redland City Council has underestimated its likely electricity expenditure for 2013-14 and 2014-15 by not accounting for any load growth nor likely price increases. SKM recommends that the expenditure for 2013-14 be increased by \$83,000 and for 2014-15 by \$186,000
- Other Materials and Services - SKM is of the view that the 2013-14 other materials and services expenses is efficient however it is recommended that the 2014-15 expenses increase be set at 2.5% consistent with the RBA inflation target.

Table 51 : Summary of reductions to 2013-14 operating expenditure forecast (nominal \$)

Category	2013-15 submission (\$'000)	Recommended reduction (\$'000)	Revised 2013-14 budget (\$'000)	Variance
Corporate Costs	6,388.00	-367.00	6,021.00	-5.75%
Employee Expenses ¹⁹	5,854.10	-142.30	5,711.80	-2.43%
Electricity	1,715.70	82.80	1,798.50	4.83%

¹⁹Employee expenditure in this table does not include contractor costs

Category	2013-15 submission (\$'000)	Recommended reduction (\$'000)	Revised 2013-14 budget (\$'000)	Variance
Other Materials and Services ²⁰	3,848.60	-0.20	3,848.40	-0.01%
Total 2013-14 forecast²¹	43,864.40	-426.70	43,437.70	-0.97%

Table 52 : Summary of reductions to 2014-15 operating expenditure forecast (nominal \$)

Category	2013-15 submission (\$'000)	Recommended reduction (\$'000)	Revised 2014-15 budget (\$'000)	Variance
Corporate Costs	6,568.00	-371.00	6,197.00	-5.65%
Employee Expenses ²²	6,000.40	-131.60	5,868.80	-2.19%
Electricity	1,751.70	186.40	1,938.10	10.64%
Other Materials and Services ²³	3851.90	92.80	3,944.70	2.41%
Total 2014-15 forecast²⁴	47,781.8	-223.40	47,558.40	-0.78%

6.3 Capital expenditure

A sample of six projects was assessed as a representative sample of the capital expenditure programme Redland City Council for the 2013-15 period. These projects have been assessed these against the Authority's definitions of prudence and efficiency, including the scope of work, standards of service, timeliness of delivery and the project costs.

Through the detailed review of the six sampled projects a number of issues have been identified. These issues include:

- A general lack of documented information supporting the project. In particular, this included a lack of definition regarding the project scope of work and inconsistencies between the supporting information and the proposed budget.
- Many of the projects under review are in the initial stages of design. As a result, SKM has only been able to review a limited amount of design and construction documentation.
- There is a general lack of evidence of competitive tendering both of design and construction work. Further details are provided in Section 5.4. The result of this is that it is difficult to establish that costs are efficient.
- No standardised approach to cost estimation is documented by Redland City Council, although the Water Supply Network Master Plan Northern District (Allconnex Water, May 2011) recommends the use of standard percentages for contingency (20% allowance of for existing infrastructure and 30% for future infrastructure). It also recommends an administrative allowance of 20% for on-costs (such as survey, planning, design, supervision and contract administration). Due to the lack of cost breakdowns provided, it was not possible to determine whether these percentages have been used.

6.3.1 Recommended adjustments to capital expenditure

In summary, of the six projects reviewed by SKM:

- Four were found to be prudent and efficient (Sewerage Pump Station No. 6, Pumps, Benfer Rd DMA Network Upgrade and Redland Mainland WSS Network Upgrade Project).

²⁰ Other materials and services also includes parks and fleet costs

²¹ There are other categories included in the total 2013/14 forecast, and therefore these values are not the summation of the individual categories shown

²² Employee expenditure in this table does not include contractor costs

²³ Other materials and services also includes parks and fleet costs

²⁴ There are other categories included in the total 2014/15 forecast, and therefore these values are not the summation of the individual categories shown

- One was found to be prudent but not efficient. For the Point Lookout WWTP Upgrade Project, it is recommended that costs are deferred to reflect the proposed expenditure profile and only added into the RAB once the assets are commissioned.
- One was found to be not prudent but efficient. The Meter Replacement Programme was found to be partially prudent as not all meters will require replacement due to age. However, it was found to be efficient due to the low unit rates used, even with reduced scope of works proposed.

Table 53 shows the recommended reduction in costs to the sampled projects.

Table 53 : Overview of prudence and efficiency of capital expenditure sample selection (costs as incurred)

Project Name	Assessment			Redland City Council Proposed† (\$'000)		Proposed Adjustment (\$'000)		SKM Recommended (\$'000)	
	Prudent	Efficient	Comment	2013-14	2014-15	2013-14	2014-15	2013-14	2014-15
Point Lookout WWTP Upgrade	✓	✗	Whilst SKM finds the value of the works to be efficient, SKM suggests that the expenditure be deferred until 2015-16 deferred to reflect the proposed expenditure profile and only added to the RAB once the works are commissioned.	500	14,500	0	-7,500	500	7,000
Sewerage Pump Station No. 6	✓	✓	Prudent and efficient	3,931	0	0	0	3,931	0
Benfer Rd DMA Network Upgrade	✓	✓	SKM suggests that the expenditure be deferred until 2015-16 once the works are commissioned.	0	193	0	0	0	193
Pumps	✓	✓	Prudent and efficient	359	369	0	0	359	369
Meter Replacement Programme	✗	✓	Partially prudent as not all meters will require replacement due to age. Efficient due to the low unit rates used, even with reduced scope of works proposed.	308	317	0	0	308	317

Project Name	Assessment			Redland City Council Proposed† (\$'000)		Proposed Adjustment (\$'000)		SKM Recommended (\$'000)	
	Prudent	Efficient	Comment	2013-14	2014-15	2013-14	2014-15	2013-14	2014-15
Redland Mainland WSS Network Upgrade	✓	✓	Prudent and efficient	811	283	0	0	811	283
Total				5,909	15,662	0	-7,500	5,909	8,162

A detailed review of capital projects is provided in Appendix A to Appendix F.

Appendix A. Point Lookout WWTP Upgrade

A.1 Project description

Wastewater treatment at Point Lookout, North Stradbroke Island, is provided by three independent package treatment plants (one of concrete and two of steel construction) which operate in parallel. The package treatment plants are more than 20 years old, have been stated by Redland Council as having reached the end of their economic life and are in poor condition. (Water Strategies, September 2013).

The plants have a combined rated capacity of about 1,750 EP and produce relatively low quality effluent. During peak holiday periods the connected EP exceeds the allowable DERM WWTP Development Approval of 4,000 EP. Based on current town planning constraints the ultimate population is estimated to be 2,600 EP increasing to 6,300 EP during peak holiday periods. (Redland City Council, 25 June 2012).

The scope of this project is the construction of a new treatment plant.

In the *Point Lookout Wastewater Treatment Plant Planning Review* (Logan Water Alliance, August 2011) the Logan Water Alliance reviewed 55 previous planning reports and other relevant information dating back to 1999. At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013) Redland City Council stated that the majority of the previous planning reports focused on an alternative site for the plant and alternative methods of managing effluent such as the production of Class A+ recycled water, which is no longer being considered due to its high cost. In addition Redland City Council stated the expenditure on historical studies has been written off and will not be capitalised at the completion of the project. As such, historic expenditure on previous studies will does not form part of any cost benefit on net present cost analysis of options.

A.2 Proposed capital expenditure

Table A.1 shows the proposed cost of the Point Lookout Wastewater Treatment Plant Upgrade project within the 2013-15 budget.

Table A.1 : Point Lookout Wastewater Treatment Plant Upgrade project proposed capital expenditure

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	500	7,000	0	7,500
<i>Project Financial Summary – Pt. Lookout – New STP</i> (Redland City Council, no date)	0	8,000	7,000	0	15,000
'Copy of 10 year capex report additions combined.xls'	0	500	14,500	0	15,000
<i>Point Lookout Sewerage Scheme Upgrading Review</i> (Water Strategies, September 2013)			20,800		20,800

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council advised that the expenditure profile in the template submitted to the Authority should contain \$7.5 million in 2015-16, resulting in a total expenditure of \$15 million.

SKM notes that the *Point Lookout Sewerage Scheme Upgrading Review* (Water Strategies, September 2013) includes \$18.5 million for the new treatment plant plus an additional \$2.3 million for infiltration basins/irrigation area and sewerage conveyance infrastructure, equalling the \$20.8 million identified in Table A.1.

A.3 Documentation reviewed

The key reference documents used for this review are:

- *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013)
- *Point Lookout Wastewater Treatment Plant - Environmental Evaluation* (KBR, 28 September 2012)
- *Project Financial Summary – Pt. Lookout – New STP* (Redland City Council, no date)
- *Point Lookout Sewerage Scheme Upgrading Review* (Water Strategies, September 2013)
- *Project Brief – Point Lookout WWTP Upgrade* (Redland City Council, 25 June 2012)
- *Point Lookout Wastewater Treatment Plant Planning Review* (Logan Water Alliance, August 2011)

A.4 Key drivers

The primary cost driver identified by Redland City Council for this project is compliance.

Point Lookout WWTP has three independent package treatment plants, which operate in parallel, are over 20 years old and have reached the end of their economic life. Remediation works were carried out in 2011-12 to address critical structural problems. The remediation works were seen as temporary measures, sufficient to enable the plant to continue operation until a new plant was constructed. (Water Strategies, September 2013).

The plants have a combined rated capacity of approximately 1,750 EP and produce relatively low quality effluent. Effluent from the treatment plants is currently recharged to groundwater through unlined and unfenced infiltration ponds. Groundwater modelling (Point Lookout Wastewater Project, Environmental Assessment Report for New Treatment Plant and Effluent Disposal, March 2004) has established that the effluent discharge to infiltration basins forms a narrow concentrated plume flowing through to Deadman's Beach. (Redland City Council, 25 June 2012).

During peak holiday periods the connected EP exceeds the allowable DERM WWTP Development Approval of 4,000 EP. From current town planning constraints the ultimate population size within the current planning horizon is estimated to be 2,600 EP increasing to 6,300 EP during peak holiday periods. This estimate includes the areas recommended to be serviced by a reticulated sewerage system but excludes other emerging areas that may be connected at some time in the future (beyond 2031) (Redland City Council, 25 June 2012).

In 2012, the plant exceeded maximum limits for total suspended solids 6 times, it exceeded short term 80 percentile limits 22 times and it exceeded median values for faecal coliforms 4 times. An Environmental Protection Order (EPO) in relation to the plant was issued to Allconnex Water on 7th March 2012. This EPO prompted some further plant improvements which were carried out in early 2012. The EPO was rescinded following satisfactory remediation works. (Water Strategies, September 2013).

The DEHP also issued a Notice to Redland City Council in March 2012 to conduct or commission an Environmental Evaluation. The Environmental Evaluation determined that much more stringent effluent release limits are required to mitigate any risk to the wetlands along the coastal fringe or to coastal waterways. As a consequence it is likely that DEHP will set more stringent effluent standards for the treatment plants when the licence is re-negotiated than are currently imposed. The Water Strategies reports documents that through discussions with DEHP, it was suggested that DEHP may require more stringent effluent standards and it may be necessary to establish a Transitional Environmental Programme to enable the existing plant to continue to operate under the old licence conditions until such times that the new plant is constructed and commissioned. (Water Strategies, September 2013).

The *Point Lookout Sewerage Scheme Upgrading Review* (Water Strategies, September 2013) documents the key drivers for the implementation of a new treatment plant as follows:

- The existing WWTP is overloaded during peak holiday periods even though interim works have managed to improve the plant performance

- The existing plant is in relatively poor condition and although interim improvements have been made it will require ongoing and increasingly difficult repair work if it was to be retained in service for the foreseeable future
- Continuing growth at Point Lookout, particularly related to tourism, will increase the loadings on the plant
- Effluent produced by the plant has high nutrient levels which may be impacting on the wetlands at the back of Home Beach and on the beach itself. A new treatment plant would be required to produce much lower nutrient levels to minimise the potential for impact on the wetlands and Home Beach
- Redland City Council has made a commitment to the DEHP to undertake a plant upgrading to remedy current deficiencies
- A number of areas at Point Lookout are not sewered and utilise septic tanks for waste disposal. Unsewered areas in the vicinity of Cylinder Beach which may have contributed to water quality problems that have been reported at this beach (Water Strategies, September 2013)

SKM considers that both growth and compliance are the appropriate driver for the project, particularly taking into account the more stringent effluent discharge quality requirements that have been advised will be imposed as the plant is overloaded during peak holiday periods and the projected growth in properties connected to the sewage system.

A.5 The scope of works

A.5.1 Solutions development

The objective of the *Point Lookout Wastewater Treatment Plant Planning Review* (Logan Water Alliance, August 2011) was to consolidate and review previous planning undertaken for the Point Lookout wastewater conveyance and treatment system, identify preferred options for the upgrade of this system, provide a revised budget cost estimate for the recommended works, and review options for procuring the capital works.

A number of options were developed in relation to the proposed upgrade of the Point Lookout WWTP. These options include:

- Site location
- Effluent quality requirements
- Capacity and staging
- Wastewater conveyance
- Effluent management
- Bio-solids handling (Logan Water Alliance, August 2011)

Two treatment plant site options were assessed:

- Existing site (Tramican Rd)
- New site at George Nothling Drive (Logan Water Alliance, August 2011)

An options assessment was undertaken for each of the above. Analysis of the cost estimate for each option demonstrates that construction of the new WWTP at the existing site will provide a saving of about \$4.8 million or 23% over construction at the new site on George Nothling Drive. This saving is primarily due to Redland Council not having to provide a new access road, electricity or water and being able to reuse the existing infiltration lagoons and existing conveyance infrastructure, although upgrading PS70 and PS71 is still required. (Logan Water Alliance, August 2011).

Logan Water Alliance reviewed alternative wastewater process technologies, including:

- Oxidation ditch

- Sequence batch reactors (SBRs)
- Membrane bioreactors (MBR)
- Intermittent decanted extended aeration (IDEA)
- Intermittent decanted aeration lagoon (IDAL). (Logan Water Alliance, August 2011)

A multi-criteria analysis (MCA) was undertaken to determine which of the alternative treatment technologies best suit the specific requirements of Point Lookout. The assessment criteria were: operability; maintainability; resistance to corrosion; ability to cope with variable biological loads; quality of treated effluent; isolation factor and capital; and operating and maintenance costs. Of the five process technologies assessed, the MCA indicated that SBR, MBR and IDEA are the most suitable treatment technologies for the Point Lookout WWTP.

Of these three alternatives, MBR ranked the highest. This was primarily due to its comparatively low cost, small footprint and ability to achieve high effluent quality without significant tertiary filtration and chemical dosing. (Logan Water Alliance, August 2011). SKM concurs that MBR is the most cost effective process selection for facilities of this type and is typically employed in sites with similar characteristics. Although a 'do nothing' option was not considered, SKM is of the opinion that, given the breaches in the effluent discharge quality and condition of the existing plant, it is reasonable to discount the do nothing option without any detailed evaluation of such.

A number of alternative staging options were considered. These were:

- Staging Option A: Construct the WWTP in two stages, with the first stage having sufficient capacity to treat peak loads from ultimate development of the existing service area. A future second stage will cater for the recommended expansion of the existing service area
- Staging Option B: Construct the WWTP in two stages, with the first stage having sufficient capacity to treat existing peak loads. Future stages will provide the additional capacity to meet growth
- Staging Option C: Construct the WWTP in three stages with the first stage catering for most peaks, but not the Christmas and Easter peaks. Storage will be required to balance flows during peak periods. Future stages would be constructed to cater for growth
- Staging Option D: Continue to operate the existing WWTP and construct the proposed new WWTP to cater for the balance of current peak flows. Future stages would be constructed to cater for growth. (Logan Water Alliance, August 2011)

Table A.2 : WWTP staging options summary (Logan Water Alliance, August 2011)

Staging Option	Stage 1 (kL/d)	Stage 2 (kL/d)	Stage 3 (kL/d)	Configuration
A	960	300	Not required	Single module, with main tank fully constructed during stage 1
B	630	630	Not required	Two parallel modules
C	450 + 1.6 ML balance tank	315	315	Three parallel modules
D	300 (continue to operate exist WWTP)	480 (Decommission exist WWTP)	480	Three parallel modules

Staging Option A was selected as the preferred option on the grounds that it had the lowest total cost and presented the least risks (Logan Water Alliance, August 2011).

Four options were assessed for conveying wastewater to the new plant. These options were:

- Option A: This option maximises the use of existing mains to the existing WWTP site. The mains are extended to the new WWTP site on the opposite side of the ridge. This alignment has a maximum elevation of 100 m Australian Height Datum (AHD)

- Option B: This option takes into account the topography between the existing and new WWTP sites. The mains are extended via a saddle in the topography with a maximum elevation of 85 m AHD. This option also reduces the retention times by maximising the use of gravity mains
- Option C: This option transfers flow via an alignment that runs directly from PS71 to the new WWTP site, located at approximately 55 m AHD
- Option D: This option assumes that the new WWTP is located at the existing site. This optimises the use of existing infrastructure to the site, located at approximately 80 m AHD. (Logan Water Alliance, August 2011)

The preferred conveyance option is dependent on the location of the new WWTP, with Option D the preferred option being based on the plant being located at the existing site. This combined option has the lowest Net Present Cost (NPC) of all of the options assessed as no new mains would be required. (Logan Water Alliance, August 2011).

The following effluent management options were assessed:

- Option E1: Reflects the development approval conditions for the new site, which includes effluent reuse at a designated irrigation area, with the surplus disposed of in existing infiltration ponds
- Option E2: Infiltration only, with all effluent being conveyed to the existing lagoons at the existing WWTP site
- Option E3: Infiltration only, with new infiltration lagoons being constructed in the area currently nominated for irrigation (Logan Water Alliance, August 2011)

An options assessment was undertaken for the above alternatives. Based on the construction of the new plant at the existing site, Option E2 was preferred. With this option, all of the issues associated with transferring effluent to the existing infiltration ponds would be avoided, mitigating additional capital works and reducing the need to clear essential habitat. Although Option E1 was already agreed with DERM, it is the least favourable option due to its comparatively high costs and maintenance issues. (Logan Water Alliance, August 2011). Given the above and from our analysis, SKM agrees with the selection of Option E2 as the preferred option.

The following biosolids management options were assessed:

- Option B1: Transport all wet sludge via tanker to Cleveland WWTP (business as usual)
- Option B2: Transport thickened wet sludge to Cleveland WWTP
- Option B3: Provide mobile dewatering at Point Lookout WWTP
- Option B4: Install a belt filter press at Point Lookout WWTP (Logan Water Alliance, August 2011)

An options assessment was undertaken for the above alternatives. Option B3 was the preferred biosolids management option based on NPC. Option B3 involves constructing two sludge-holding lagoons onsite, which would be dewatered on an annual basis. The primary disadvantage of this option is that a relatively large amount of space, approximately 900 m², is required to accommodate the lagoons. As a result, Option B3 is only considered appropriate for the new site at George Nothling Drive as the existing site does not have sufficient space to accommodate the lagoons. If the new WWTP is constructed on the existing site, the next best biosolids strategy is Option B2. (Logan Water Alliance, August 2011).

The *Point Lookout Sewerage Scheme Upgrading Review* (Water Strategies, September 2013) built on the findings of the *Point Lookout Wastewater Treatment Plant Planning Review* (Logan Water Alliance, August 2011) with the objective being to consolidate and review previous planning undertaken for the Point Lookout wastewater conveyance and treatment system, identify preferred options for the upgrade of this system (including consideration of sewerage of unsewered allotments), provide a revised budget cost estimate for the recommended works, and review options for procuring the capital works. The Water Strategies report conclusions are in agreement with the recommendations of the Logan Water Alliance in terms of the location of the new plant and the management of the effluent.

The following options/alternatives were considered for sewerage of unsewered allotments:

- Providing sewerage to priority unsewered lots which are likely to result in health risk or nuisance to local residents
- Providing sewerage to all unsewered lots on the eastern side of Point Lookout
- Providing sewerage to all unsewered lots at Point Lookout
- Providing sewerage to Emerging Urban Communities (Water Strategies, September 2013)

The *Point Lookout Sewerage Scheme Upgrading Review* (Water Strategies, September 2013) recommended that the treatment plant sized for 7,600 EP which includes an allowance for:

- Take up of all vacant lots in the seweraged areas
- Sewering of all unsewered areas
- An allowance of 1,190 EP for “Emerging Urban Communities”

The *Point Lookout Sewerage Scheme Upgrading Review* (Water Strategies, September 2013) states that a critical factor in assessing staging of the plant is the extent of deferral of capital expenditure resulting from the staging. The 7,600 EP required capacity could be provided by having either 2 x 3,800 EP modules or 3 x 2,500 EP modules. The main advantage of 2 x 3,800 EP modules is the smaller footprint of the 2 x 3,800 EP module plant. Given there is an extended period of time during any year when the plant would be subject to non-peak loadings, the Water Strategies study determined that it would be desirable for the plant to be constructed in two modules one of which could be shut down during non-peak periods.

SKM notes that, although the plant has currently been sized to allow for the sewerage of all unsewered areas, the sewerage of all unsewered areas is not part of the scope of this project.

Taking into account the outcomes of the review of wastewater conveyance system and wastewater treatment plant options, the preferred scheme involves the following:

- Construct a new WWTP on the existing site at Tramican Street
- Based on the likely effluent quality requirements, site space constraints and to ensure capital costs are minimised, an MBR is the preferred treatment process
- The new plant should be constructed with two 3,800 EP modules
- Continue to utilise the existing effluent management scheme, which involves disposal of effluent via infiltration lagoons (Water Strategies, September 2013)

SKM considers that an appropriate options evaluation process has been undertaken and that the scope of work is appropriate for the purpose described. SKM considers that MBR is the most cost effective process selection for facilities of this type and is typically employed in sites with similar characteristics. This has been tested in the market place recently with Goodna STP, Ballina STP, Nambour STP, Sarina WRF and Maleny STP all being MBR facilities. The retention of the existing site provides a significant cost saving and is realistic for a MBR plant, which requires less footprint.

A.5.2 Project delivery

A number of delivery options were considered by Water Strategies, including:

- Traditional Design and then Construct
- Design and Construct (D&C) type contract
- Set up a new Alliance Contract
- Utilise an Early Contractor Involvement (ECI) as a variant of the conventional delivery method or D&C delivery methods
- Utilise an EPCM (Engineering Procurement and Construction Management) type contract or by engaging a Managing Contractor (Water Strategies, September 2013)

A comparison of these types of delivery methods was undertaken with the advantages and disadvantages of these delivery methods identified. From an assessment of the current market conditions the preferred delivery model chosen was the D&C Construct Model with or without an “Early Contractor Involvement”. (Water Strategies, September 2013).

SKM concurs that the D&C model that is proposed takes advantage of the current competitive market conditions and is suited to the relatively low project risk profile associated with the size and type of facility required.

The proposed programme for the project is outlined below.

Table A.3 : Proposed programme (Water Strategies, September 2013)

Component	Date
Complete environmental approvals	March 2014
Call Expressions of Interest for a Design and Construct Contract	May 2014
Award contract	December 2014
Plant start-up	May 2016

SKM notes that the proposed start-up of the plant is not until May 2016, which is outside of the review period. As expenditure can only be incorporated into the regulatory asset base once it is complete and operational and providing a regulated service, SKM recommends that all expenditure should be capitalised at the completion and commissioning of the project in 2016.

A.6 Standards of service

The design criteria used by the Logan Water Alliance is outlined below. These were carried through to the Water Strategies investigation.

Table A.4 : Design criteria (Logan Water Alliance, August 2011)

Parameter	Proposed Design Criteria
Per capita load	200 L/EP/d
Design capacity of WWTP	2.8 x average off peak flow/peak population @ per capita load
Design capacity of wastewater network	2.8 x average off peak flow/peak population @ per capita load
Pump station emergency storage	8 hours

The Sewerage Network Design Criteria for average dry weather flow, as per 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) is 200 L/EP/d for RIGS, 180 L/EP/day for NuSewer and 210 L/EP/d for “baseline” calculations for existing conventional sewer. SKM considers the use of 200 L/EP/d to be appropriate.

Wastewater treatment plants and conveyance networks are typically designed with sufficient capacity to cater for 3 x ADWF (average dry weather flow) and 5 x ADWF or PWWF (peak wet weather flow) respectively. These design criteria are appropriate for the majority of wastewater networks. Logan Water Alliance’s investigation into the Point Lookout wastewater network indicates that wet weather events have very little impact on flows in the network and therefore at the plant. Instead, peaks in flow are a result of short-term increases in population. Logan Water Alliance suggested that a more suitable DSS should therefore be tied to population increase. Logan Water Alliance recommended that both the network and plant be designed to cater for the hydraulic and biological load from the latest estimates of peak population. The peak is around 2.8 times the off-peak population, which is equivalent to the 95th percentile inflow that occurs over the Christmas holiday period.

(Logan Water Alliance, August 2011). SKM considers that the adopted design capacity of WWTP and the wastewater network to be appropriate.

SKM notes that the adopted pump station emergency storage requirement of 8 hours is high when compared to the *SEQ Water Supply and Sewerage Design and Construction Code* specifies 4 hours at ADWF for Gold Coast, Logan and Redland. However, SKM agrees with Logan Water Alliance’s recommendation to design a larger emergency storage as with no operational staff permanently based on the island, to ability to response to and manage the situation may not be achievable.

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states:

“The works will be constructed in accordance with the Redlands Planning Scheme requirements and the SEQ D&C Code and/or WSAA standards as they apply.”

SKM considers that the standards developed and used by the Logan Water Alliance are appropriate given the locality and circumstances of the plant and the timing of the investigation. SKM recommends that the appropriate SEQ Design and Construction Code and/or WSAA standards be used during the detailed design process.

A.7 Project cost

The *Project Brief – Point Lookout WWTP Upgrade* (Redland City Council, 25 June 2012) includes a budget of \$15 million for the project.

The distribution of the project costs is different in a number of documents, as outlined below.

Table A.5 : Project costs distribution

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Subsequent years (\$'000)	Total (\$'000)
<i>Project Financial Summary – Pt. Lookout – New STP</i> (Redland City Council, no date)	8,000	7,000	0	15,000
<i>'Copy of 10 year capex report additions combined.xls'</i>	500	14,500	0	15,000
<i>Point Lookout Sewerage Scheme Upgrading Review</i> (Water Strategies, September 2013)		20,800		20,800

The cost estimate developed by Water Strategies for the preferred option, of a new treatment plant at the existing site with infiltration basins, is outlined below.

Table A.6 : Total Cost of Option (Water Strategies, September 2013)

Works	New treatment plant at the existing site with infiltration basins
Treatment Plant Location	Existing Site
Effluent Disposal	Existing Infiltration Basins
Capital Cost Treatment Plant	\$18.5 M
Capital Cost of Infiltration Basins/Irrigation Area	\$0.4 M
Total Capital Cost	\$18.9 M

The cost estimate for the construction of the new treatment plant at the existing site is included below.

Table A.7 : Cost Estimate for treatment plant (Water Strategies, September 2013)

Aspect		Amount (\$)
Civil Works	General site works & miscellaneous	1,705,000
	Inlet Works	640,000
	Civil Works	2,884,703
	M&E	2,843,703
	Biosolids	484,000
	Infiltration Ponds	170,253
	Commissioning	500,000
	Sub-Total	9,227,955
Design Development (5%)		461,398
Preliminaries, site establishment, PM & supervision (13%)		1,199,634
Island Factor (25% of base cost only)		2,306,989
Project Fees (13.5%)		1,470,013
Contingency (30%)		3,266,696
Client Cost (Supervision and approvals)	PM & construction management (2.5%)	230,699
	Approvals (5%)	461,398
	Contingency (2.5%)	230,699
Total		18,855,481

SKM considers that the \$18.9 million cost estimate for the proposed option is in line with, but slightly on the low side of, current market expenditures for similar sized and performing facilities (eg the 8,000 EP Sarina WRF which cost approximately \$25 million, and the 9,000 EP Maleny STP which cost approximately \$19 million). It is noted that an appropriate factor has been applied for remote works at Stradbroke Island; however some direct costs are low, resulting in an estimate slightly lower than the benchmarks.

SKM notes that the budget value of \$15 million (originally submitted by Redland City Council to the Authority) is lower than the project breakdown cost of \$18.9 million (as per the Water Strategies report). SKM believes that the \$18.9 million is on the low side of market conditions. However, it is within 30 percent of the order of magnitude budget estimate (\$15 million). SKM therefore recommends that the lower number (\$15 million) is adopted in the RAB in the year the asset is operational (unless a revised value is subsequently submitted to the Authority).

As the completion and commissioning of the project is outside of the review period, SKM suggests that the expenditure be removed from the current review period (2013-15).

A.8 Efficiency gains

No efficiency gains have been identified for this project.

A.9 Implications for operating expenditure

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council advised that by proceeding with the construction of a new plant at the existing site it will be able to relinquish part of the land it currently lease on North Stradbroke Island. This will reduce lease costs from approximately \$120,000 per year to \$60,000 per year.

A.10 Policies and procedures

Table A.8 below identifies how the project has complied with the appropriate policies and procedures.

Table A.8 : Point Lookout Wastewater Treatment Plant Upgrade project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudence and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	As Point Lookout WWTP is located on Stradbroke Island there are very limited opportunities to consider from a regional perspective. From discussion, SKM notes that Redland City Council has considered bundling the work with other WWTPs (eg Thornside WWTP inlet works)
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Not applicable	Alternative investments such as the substitution between operating costs and capital expenditure are not applicable to this project.
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	Redland City Council does not have a standardised approach to cost estimating. The <i>Water Supply Network Master Plan Northern District</i> (Allconnex Water, May 2011) recommends the use of <i>GCW Unit Rates Review – 2008</i> allowances. The contingency applied (30%) is in line with the recommendation however the on-cost applied (totalling at 39%) are greater than the recommended on-costs (of 20%).
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	<i>Project Brief – Point Lookout WWTP Upgrade</i> (Redland City Council, 25 June 2012)
An implementation strategy to be developed for each major project	Yes	<i>Point Lookout Sewerage Scheme Upgrading Review</i> (Water Strategies, September 2013)
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	No	Redland City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	Existing infrastructure was considered in the options analysis
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

A.11 Prudence and efficiency

SKM considers that growth and compliance are the appropriate drivers for the project as the plant is overloaded during peak holiday periods and Redland City Council has made a commitment to the DEHP to undertake a plant upgrading to remedy current deficiencies. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work appropriate for the purpose described. SKM accepts that MBR is the most cost effective process selection for facilities of this type. This technology has been tested in the market place recently with Goodna STP, Ballina STP, Nambour STP, Sarina WRF and Maleny STP all being MBR facilities. The retention of the existing site provides a significant cost saving and is realistic for a MBR plant, which requires less footprint. As such SKM concludes that the project is prudent.

SKM considers that the D&C model that is proposed takes advantage of the current competitive market conditions and is suited to the relatively low project risk profile associated with the size and type of facility required. SKM notes that the proposed start-up of the plant is not until May 2016, which is outside of the review period. As expenditure can only be included in the RAB once the plant is complete, operational and delivering a regulated service, SKM recommends that all expenditure should be included in the RAB in the year of completion of the project, ie in 2016. SKM considers the standards of works applied to be appropriate.

SKM considers that the \$18.9 million cost estimate for the proposed option is in line with, but on the low side of, current market expenditures for similar sized and performing facilities (eg the 8,000 EP Sarina WRF which cost

approximately \$25 million, and the 9,000 EP Maleny STP which cost approximately \$19 million). It is noted that an appropriate factor has been applied for remote works at Stradbroke Island. However, some direct costs are considered low, resulting in an estimate that is lower than the benchmark costs would suggest. SKM notes that the budget value of \$15 million (originally submitted by Redland City Council to the Authority) is lower than the project cost of \$18.9 million (as per the Water Strategies report). Whilst SKM believes the revised projection of \$18.9 million to be slightly on the low side of market conditions, it is within 30 percent of the order of magnitude budget estimate (\$15 million). SKM therefore recommends that the lower number (\$15 million) is adopted in the RAB in the year the asset is operational.

SKM recommends that a portion if the costs be deferred to reflect the proposed expenditure profile. In addition, as the completion and commissioning of the project is outside of the review period, SKM recommends that the expenditure be removed from the current review period (2013-15).

A.12 Assessment of reported expenditure

Table A.9 below identifies the revised capital expenditure for the Point Lookout Wastewater Treatment Plant Upgrade project.

Table A.9 : Point Lookout Wastewater Treatment Plant Upgrade project revised capital expenditure (as incurred)

Project	2013-2014 (\$'000)	2014-2015 (\$'000)	2015-2016 (\$'000)	Total (\$'000)
Point Lookout WWTP Upgrade [†]	500	7,000	7,500	15,000
SKM proposed value	500	7,000	7,500	15,000
Variation (to QCA submitted value)	0	0	0	0

[†] Source: 5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template (revised as per advice provided by Redland City Council at the meeting on 17 October 2013)

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 Redland City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix B. Sewerage Pump Station No. 6

B.1 Project description

Sewerage Pump Station 6 (SPS6) is located at the Cleveland Showgrounds and is one of two major collection points for sewage treated at Cleveland Sewage Treatment Plant (STP). Sewage is pumped to the STP via a 450 diameter asbestos concrete (AC) rising main with the assistance of booster pump station SPS 128. (Worley Parsons, 13 August 2009).

It was identified that SPS6 and the associated rising main do not have sufficient capacity to deliver ultimate flows to Cleveland STP. In order to cope with these future flows, a consultant was commissioned to investigate options and subsequently produce a detailed design for the upgrade of SPS6 and the associated rising main. (Worley Parsons, 13 August 2009)

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that the construction of the new rising main had been completed, almost two years ago, but cannot be commissioned until the new pump station was constructed.

The outcome of the project will be an upgraded pump station which will enable the sewerage system to cater for increasing loads from the upstream catchment with minimisation of overflows. The new pumps will replace the aging existing pumps; provide greater reliability and improved operator working conditions and safety.

B.2 Proposed capital expenditure

Table B.1 shows the proposed cost of the Sewerage Pump Station No. 6 project within the 2013-15 budget.

Table B.1 : Sewerage Pump Station No. 6 project proposed capital expenditure

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	3,931	0	3,931
<i>Project Financial Summary – Cleveland Catchment SP 6</i> (Redland City Council, no date)	3,931	0	3,931

The expenditure provided in the two documents is identical.

B.3 Documentation reviewed

The key reference documents used for this review are:

- *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013)
- *Project Financial Summary – Cleveland Catchment SP 6* (Redland City Council, no date)
- *Project Brief – Cleveland Catchment SPS006* (Redland City Council, 25 June 2012)
- *SPS6 Augmentation - Basis of Design Report* (Worley Parsons, 13 August 2009)

B.4 Key drivers

The primary cost drivers identified by Redlands City Council for this project are growth and renewal.

The main objectives for the augmentation of SPS6 are identified as follows:

- Provide a balance between lowest cost and a reliable, maintainable system

- Address current operational and maintenance issues
- Design for ultimate build out
- Design for compliance with regulatory requirements and industry standards (Worley Parsons, 13 August 2009)

SPS6 is located at the Cleveland Showgrounds complex in Cleveland. It is one of two major collection points for sewage treated at Cleveland STP and is high priority site during wet weather and power failure events due to high potential for overflows. The pump station is surrounded by sports fields and bounded by a concrete-lined stormwater drain to the east. SPS6 is currently a dry well-wet well configuration, with two pumps working duty and duty-assist. The existing structure is over 30 years old. (Worley Parsons, 13 August 2009). The Cleveland Sewerage Planning Report (Cardno, 6 January 2009) states that the pump station has an estimated pump capacity of 146.0 L/s.

Population projections for the catchment are outlined below.

Table B.2 : Population projections (Worley Parsons, 13 August 2009)

Year	Population (EPs)	Average Dry Weather Flow (ADWF) (L/s)	Peak Dry Weather Flow (PDWF) (L/s)	Peak Wet Weather Flow (PWWF) (L/s)
2008	21,181	56	93	282
2013	24,085	64	104	320
2018	27,064	72	116	360
2023 (ultimate)	30,121	80	128	401

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that the construction of the new rising main had been completed but could not be commissioned until the new pump station was constructed. In addition, Redland City Council stated sewage loading factors as per the SEQ Water Supply and Sewerage Design and Construction Code were considered prior to deciding to proceed with the previously determined projections.

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that the population projections utilised in the 2009 study were reviewed and it was determined that they were appropriate to proceed with. In addition, population growth is likely to be higher than previously forecast as Redland City Council recently changed the zoning in Cleveland to allow buildings up to ten stories high. SKM understands that this future development will be considered in future design phases.

SKM considers that growth and renewal are the appropriate drivers for the project as the pump station is under capacity for peak wet weather flows. Predicted population growth in the catchment will further exacerbate the situation. As such SKM finds the project to be prudent.

B.5 The scope of works

B.5.1 Solutions development

SKM notes that the *SPS6 Augmentation - Basis of Design Report* (Worley Parsons, 13 August 2009) mainly assessed a number of different rising main configuration options as well as a number of pump configuration options.

At a series of value management workshops, a number of modes of operation and pump configuration options were assessed and the agreed outcomes are summarised in Table B.3 and Table B.4 (Worley Parsons, 13 August 2009).

Table B.3 : Pump Station Modes of Operation

Operation Modes (CH2MHill report)	Key points
2 x pumps, duty & duty-assist	<ul style="list-style-type: none"> No redundancy in the case of pump failure Sufficient space in dry well for upgraded pumps
3 x pumps, duty, duty-assist & standby	<ul style="list-style-type: none"> Not enough space in existing dry well for three pumps Provides additional redundancy in the case of pump failure
2 x pumps, duty & standby	<ul style="list-style-type: none"> Not enough space in existing dry well for the larger pumps required Higher power requirements compared to other options Difficulty in selecting a pump across the range of flows Provides additional redundancy in the case of pump failure

Table B.4 : Pump Configurations

Configuration Options (CH2MHill report)	Adopted system
Either 2 or 3 pumps	2 pumps
Dry-mounted vs. submersible pumps	Dry-mounted submersible pumps
VSDs vs. fixed speed drives	VSDs utilising 2 fixed speeds
With or without SPS128	Decommissioning of SPS128

The agreed outcome from the workshops is to have two pumps working in duty and duty-assist modes, with an identical pump purchased and kept in the stores. This would be used as a standby if a live pump needs to be taken offline for maintenance.

According to the *Project Brief – Cleveland Catchment SPS006* (Redland City Council, 25 June 2012), the project scope is:

- Supply and installation of two 290 kW pumps
- Supply and installation of switchboards and VSDs
- Supply and installation of 315 kW generating set
- Structural/civil modifications to the pump station

The *Project Brief – Cleveland Catchment SPS006* (Redland City Council, 25 June 2012) identifies the following as being out of scope for the project:

- Rising and gravity mains
- Emergency storage

From review of the *WWPS6-Cleveland Showgrounds Capacity Upgrade - Cost Estimate* (Worley Parsons, 28 July 2011), it is apparent that there is a significant increase in the scope of work when compared with that outlined in the *Project Brief* and the *Basis of Design*. The *Cost Estimate* indicates that the existing building, equipment and pipework will be demolished, a new building will be constructed, pipework connecting the pump station and the existing mains will be constructed, etc. SKM has not seen but would expect that there should exist, a report or similar that supports and justifies the increased scope of the *Cost Estimate* over that originally envisaged.

In response to SKM's draft report, the following clarification of the scope of works was provided to SKM. It is noted that this is built up from an extract from the document PS 6 Upgrade – Preliminary Project Plan (Price, 28 May 2013) which SKM has already reviewed. However, it includes further information relating to the risk assessment that was conducted with RCC's WH&S group and operational staff relating to the use of the existing wet well.

Table B.5 : Clarification of scope (PS6_Scope Details, Redland City Council, December 2013)

Component	Reason
New well	An operational risk assessment determined that the existing wet well/dry well will be replaced by a new wet well of approximately 11 m depth and 7 m diameter. The advantage of this is that the upgraded pump station can be built while the existing well is still in use, thus reducing the overflows during temporary bypass works. In addition, any commissioning problems with the upgraded site can be resolved while our existing site is in normal operation. The new well size will be chosen to limit pump starts to 10 starts per hour in normal dry weather flows. It was also considered that the Worley Parsons concept of installing dry mounted submersibles into the existing dry well presented WH&S issues with lack of space between the flanges and well walls. There were also constructability concerns during the process of removing and installing the proposed pumps and connections to new internal and external pipework.
New pumps	The existing pumps are too small for the upgraded site and cannot be submerged. In addition, they do not flow enough for the future demand in the Cleveland area. The new pumps will be configured to work in low speed/high speed mode which forms one of Redland Council's standard control philosophies. There will be no custom programs for the upgraded site which will reduce future maintenance and staff training costs. The pumps have reached the end of their reliable life. There is a risk that the surface mounted electrical motors may become flooded and damaged during high rainfall events due to being below 1 in 100.
New rising main	This work has already been undertaken, except for some interconnecting work that will be performed under this contract. A 450 mm DICL rising main has been built in parallel with the existing 450 mm AC rising main. Both mains will operate simultaneously in the upgraded site with either one pump or two pump operation. The extra pipe surface area will reduce dynamic pumping losses and save electricity.
New switchroom	The existing switchboard is old and requires replacement; however this has been held off awaiting this upgrade. The new switchboard and VSDs will be housed in a new switchroom built approximately 1 m above existing ground level, as our existing pump station is below Q100 level. Harmonic correction may also be needed to suit poor power supply in the area.
New Energex transformer	Due to the size of the pumps, Energex will need to install an 11 kV/415 V transformer adjacent to our new switchroom as the voltage drop and capacity of the existing buried Energex 415 V cables would exceed Australian Standards in the upgrade site. Upgrading the transformer would be standard practice, and Redlands Council will most likely need to make a capital contribution to Energex for the upgrade.
New backup diesel generator	Due to the size of the pumps, none of our mobile generators will be able to start a pump in the event of power failure. As this site also provides coverage for PS 141 in the event of power failure, the backup generator will give Redlands Council the ability to run two pumps at high speed to reduce the risk of overflows in the surrounding catchment.
Underground storage	To be determined - At this stage it is unclear whether underground emergency storage will be installed as part of this contract.
Odour control	To be installed as per EPA requirements.
Demolish existing building	The existing pump station building will be demolished and the pumps, switchboard and other components removed after the new site has been commissioned. A new slab will be made to close in all access holes. At this stage it is unclear to SKM whether the old well will be used for extra storage or taken off line entirely.

SKM has reviewed the scope of works as set out above and found it to be reasonable and appropriate.

B.5.2 Project delivery

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that Redland Water is currently in the process of evaluating Expressions of Interest for a construction panel which will include the Pump Station 6 project.

The *Project Brief – Cleveland Catchment SPS006* (Redland City Council, 25 June 2012) states that

“Detailed design should be carried out and tender documents prepared. Detailed design should involve assessment of the pump duty and design of any anticipated civil/structural modifications. Tenders should then be called for the supply and installation of new mechanical and electrical equipment including any civil/structural modifications.”

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that for the design and specification work, a consultant will be awarded the work through a one-on-one verbal quotation as the value of the work will be under \$15,000. Refer to Section 5.4 for further discussions on awarding contracts under \$15,000. For the construction works, tenders will be requested from all four providers on the prequalified panel. Redland City Council stated that the design will likely be completed by December 2013, with the construction contract awarded in early 2014.

SKM notes that the *PS 6 Upgrade - Preliminary Project Plan* (Price, 28 May 2013) states that the project will be delivered through a D&C contract.

In response to SKM's draft report, Redland City Council stated that "since the drafting of the PS 6 Upgrade – Preliminary Project Plan (Price, 28 May 2013), Redland City Council has determined that the most efficient way to deliver the project is through the Expression of Interest construction panel, with a design to be provided by Redland City Council to the construction panel for tendering".

SKM considers this approach to be appropriate and that the project will be able to be delivered within the review period, 2013-15.

B.6 Standards of service

The following design criteria were used in the *SPS6 Augmentation - Basis of Design Report* (Worley Parsons, 13 August 2009):

- Design Life:
 - Civil/Structural – 50 years (including buried pipework and access ladders and walkways)
 - Electrical/Mechanical – 20 to 25 years
 - Pumps – 10 to 15 years
 - Instrumentation & Control – 7 to 10 years (including exposed pipework)
- Design Flows:
 - ADWF = 230 L/EP/day
 - PDWF = C2 x ADWF where C2 = 4.7 x (EP) -0.105
 - PWWF = 5 x ADWF

Key Australian Codes and Standards referenced in the *SPS6 Augmentation - Basis of Design Report* (Worley Parsons, 13 August 2009) were:

- AS 2566.1 Buried Flexible Pipelines – Structural Design
- AS 3725 Loads on Buried Concrete Pipes
- WSA-02 2002 Sewerage Code of Australia
- WSA-04 2005 Sewage Pumping Station Code of Australia
- Structural AS 1170.1-4 Loading Code
- AS1657 Fixed Platforms, Walkways, Stairways and Ladders
- AS 3600 Concrete Structures Code
- AS 3735 Concrete Structures for Retaining Liquid
- AS 4100 Steel Structures Code
- Electrical AS 3000 Wiring Rules

SKM considers that the design lives adopted for the various asset types to be appropriate. The ADWF of 230 L/EP/day adopted in the *Basis of Design* is excessive when compared to that specified in the *SEQ Water*

Supply and Sewerage Design and Construction Code, 200 L/EP/d. However, given the timing of the development of the *Basis of Design Report* SKM considers that it is appropriate. SKM recommends that the revised ADWF be adopted in all future investigations.

B.7 Project cost

The *Project Brief – Cleveland Catchment SPS006* (Redland City Council, 25 June 2012) includes a budget of \$3.93 million for the project.

The *Project Financial Summary – Cleveland Catchment SP 6* (Redland City Council, no date) includes the following distribution of the project costs, to an accuracy of $\pm 50\%$.

Table B.6 : Project cost (Redland City Council, no date)

2013-2014 (\$'000)	2014-2015 (\$'000)	Subsequent years (\$'000)	Total (\$'000)
3,931	0	0	3,931

SKM notes that the *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that cost estimates have been built up from reference to the Basis of Design Report prepared in 2009. The costs for the preferred option, a new DN450 main constructed parallel to the existing DN450 AC main from SPS6 to the Cleveland STP inlet works with no emergency storage, from the *SPS6 Augmentation - Basis of Design Report* (Worley Parsons, 13 August 2009) is outlined below. Based on SKM's understanding that the construction of the rising main is outside the scope of this project, SKM produced a revised cost estimate excluding the rising main cost.

Table B.7 : Preliminary cost estimate

Description	Initial Capital Costs [†] (\$)	Revised Capital Costs (Excl rising main) (\$)
Site Establishment (@ 3% of direct costs)	66,748	23,647
Rising Main	1,436,677	NA
Pumps Station	739,856	739,856
Storage	NA	NA
Inlet Works	48,390	48,390
Contingency (@ 25% of direct costs)	556,231	197,061
Close out costs (@ 10% of direct costs)	222,492	78,825
Total	3,070,394	1,087,779

[†] SPS6 Augmentation - Basis of Design Report (Worley Parsons, 13 August 2009)

Subsequent to the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council provided the *WWPS6-Cleaveland Showgrounds Capacity Upgrade - Cost Estimate* (Worley Parsons, 28 July 2011). The following preliminary cost estimate, to an accuracy of $\pm 50\%$, was provided in the document.

Table B.8 : Preliminary cost estimate (Worley Parsons, 28 July 2011)

Component	Value (\$)
Preliminaries and general	106,000
Demolition of associated works	75,000
Overflow system	125,500
Diesel pump arrangement	200,000
General excavation and roadworks	105,000

Component	Value (\$)
Building and internal components	1,612,00
Pump station works (excludes supply of pumps and associated equipment)	176,000
Surge vessels and associated equipment	37,500
External pipework - between pump station and existing rising main	306,000
Miscellaneous works	25,000
Sub-total	2,768,000
Scope contingency (5%)	138,400
Construction contingency (25%)	692,000
Project Management (12%)	332,160
Total	3,930,560

As discussed in **Section B.5**, the scope of work used for the development of the *WWPS6-Cleveland Showgrounds Capacity Upgrade - Cost Estimate* (Worley Parsons, 28 July 2011) differ significantly from the *Project Brief and Basis of Design*. SKM understands that the new rising main has already been completed. In addition, SKM understands from *PS 6 Upgrade - Preliminary Project Plan* (Price, 28 May 2013) that Redland City Council had intended to procure all long lead items and free issue them to the successful contractor. As such these costs were not included in Redland Council's submission.

Following the issue of SKM's draft report, an updated cost estimate for the works was provided (file PMO1012(F) Project Control Registers v1.0.xlsx). This cost estimate includes the cost of the pumps and the required civil works, but does not include contingency allowances.

Table B.9 : Updated cost estimate (Redland City Council, December 2013)

Component	Value (\$)
VSDs	\$70,000
Harmonic filter	\$70,000
Flowmeter	\$8,000
Genset	\$200,000
Pumps (3 off)	\$250,000
Switchboard	\$150,000
Energex Supply	\$80,000
Wet well and valve pit	\$700,000
Flowmeter pit	\$150,000
Switchroom and genset compound constructed	\$240,000
Inflow pipeline including manholes in place	\$180,000
Overflow pipeline in place	\$80,000
Conversion of existing pump station to surge vessel chamber	\$200,000
Install and commission surge vessels	\$180,000
Install pumps	\$40,000
Install switchboard	\$80,000
Odour unit supplied and installed	\$250,000

Component	Value (\$)
Access roads	\$80,000
Make connections between DICL and AC pipelines	\$60,000
Demolish PS 128	\$60,000
Survey	\$15,000
Geotechnical	\$15,000
Project design and management	\$80,000
Demolish PS 128	\$60,000
Total	3,298,000

SKM has undertaken an order of magnitude cost estimate for proposed scope of works and finds the costs to be reasonable. As such SKM concludes that the project is efficient.

B.8 Efficiency gains

No efficiency gains have been identified for this project.

B.9 Implications for operating expenditure

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

B.10 Policies and procedures

Table B.10 below identifies how the project has complied with the appropriate policies and procedures.

Table B.10 : Sewerage Pump Station No. 6 project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudence and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Yes	
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Not applicable	Alternative investments such as the substitution between operating costs and capital expenditure are not applicable to this project.
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	Redland City Council does not have a standardised approach to cost estimating. The <i>Water Supply Network Master Plan Northern District</i> (Allconnex Water, May 2011) recommends the use of <i>GCW Unit Rates Review – 2008</i> allowances. The contingency applied (30%) is in line with the recommendation while the on-cost applied (approximately 16%) are lower than the recommended on-costs (of 20%).
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	<i>Project Brief – Cleveland Catchment SPS006</i> (Redland City Council, 25 June 2012)
An implementation strategy to be developed for each major project	Yes	<i>PS 6 Upgrade - Preliminary Project Plan</i> (Price, 28 May 2013)
A 'toll gate' or 'gateway' review process to be implemented so that appropriate reviews are undertaken at milestone stages for selected projects	No	Redland City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements.
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 pump station which will connect into the existing rising main. As such the project took into consideration of existing infrastructure.

Initiative	Achievement (Yes/No/Partial)	Comment
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

B.11 Prudence and efficiency

SKM considers and agrees with Redland City Council that growth and renewal are the appropriate drivers for the project as the pump station is under capacity for peak wet weather flows. Predicted population growth in the catchment will further exacerbate the situation. SKM concludes that the project is prudent.

SKM considers that the project will be able to be delivered within the review period, 2013-15.

SKM considers that the design lives adopted for the various asset types to be appropriate. The ADWF of 230 L/EP/day adopted in the *Basis of Design* is excessive when compared to that specified in the *SEQ Water Supply and Sewerage Design and Construction Code*, 200 L/EP/d. However, given the timing of the development of the *Basis of Design Report* SKM considers that it is appropriate. SKM recommends that the revised ADWF be adopted in all future investigations.

SKM finds the costs of the project to be efficient.

B.12 Assessment of reported expenditure

Table B.11 below identifies the revised capital expenditure for Sewerage Pump Station No. 6 project.

Table B.11 : Sewerage Pump Station No. 6 project revised capital expenditure

Project	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
Sewerage Pump Station No. 6	3,931	0	3,931
SKM proposed value	3,931	0	3,931
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 Redland City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix C. Benfer Rd DMA Network Upgrade

C.1 Project description

Redland Water's Network Master Plan for the water supply network indicates that augmentation of the trunk mains in the Benfer Road District Meter Area (DMA) is required in order to maintain Redland City Council's Peak Hour and Fire Flow Desired Standards of Service (DSS).

The Benfer Road DMA is a relatively long and narrow DMA. The bulk of the DMA follows Benfer Road to Link Road and includes customers either side of the Benfer Road in that stretch. From there, the DMA follows Colburn Avenue to Victoria Point itself, but only includes customers on the southern side of Colburn Avenue. The DMA also includes the submarine crossing and supply to Coochiemudlo Island and a small area west of Cleveland – Redland Bay Road.

C.2 Proposed capital expenditure

Table C.1 shows the proposed cost of the Benfer Rd DMA Network Upgrade project within the 2013-15 budget.

Table C.1 : Benfer Rd DMA Network Upgrade project proposed capital expenditure (\$'000)

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	0	193	193
<i>'Copy of 10 year capex report additions combined.xls'</i>	0	193	193

The expenditure for the review period (2013-15) is identical.

SKM notes that for the Benfer Rd DMA Network Upgrade project, expenditure is distributed throughout the ten year programme, as outlined below.

Table C.2 : Benfer Rd DMA Network Upgrade project 10 year proposed capital expenditure (\$'000)

2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
0	193	773	0	0	84	336	0	476	1,904	3,766

SKM's review focuses on the 2013-15 review period.

C.3 Documentation reviewed

The key reference documents used for this review are:

- *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013)
- *Project Brief - Benfer Rd DMA Network Upgrade* (Redland City Council, 25 June 2012)
- *Project Concept - Benfer Rd DMA Network Upgrade* (Redland City Council, 7 August 2012)
- *Project Financial Summary – Benfer Rd DMA Network Upgrade* (Redland City Council, no date)
- *Water Supply Network Master Plan Northern District* (Allconnex Water, May 2011)

C.4 Key drivers

The primary cost driver identified by Redland City Council for this project is renewal.

Increases in population in the Victoria Point area as forecast in Redland City Council's Priority Infrastructure Plan population projections are expected to result in parts of the water supply network not meeting Redland City Council's DSS in 2014-15. (Redland City Council, September 2013)

The Peak Hour model results for the Benfer Road DMA with the current modulation profile for the pressure reducing valve (PRV) show that the mainland has sufficient pressures at Peak Hour, however all areas on Coochiemudlo Island have pressures less than 22 m with some areas showing negative pressures. The results also show that the pressures in the Benfer Rd DMA are limited by the available pressure upstream of the DMA. (Allconnex Water, May 2011)

SKM considers that based on the information provided growth would be a more appropriate driver for the project. Given that due to population increases sections of the network are not meeting peak hour pressures and therefore fire flow provision required under 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).

C.5 The scope of works

C.5.1 Solutions development

According to the *Project Concept - Benfer Rd DMA Network Upgrade* (Redland City Council, 7 August 2012), the scope of this project is to review the actual network performance, adjust/calibrate the network model accordingly and finalise the required network augmentations. The next process will be to undertake the detailed design and construction of these augmentations.

In the *Water Supply Network Master Plan Northern District* (Allconnex Water, May 2011) a number of options were assessed. These were:

- Option 1: Combine Victoria Point and Benfer Rd DMAs
- Option 2: Only augment mains on land
- Option 3: Booster pump to Coochiemudlo Island
- Option 4: Augment main to Coochiemudlo Island

Option 1 was discounted as modelling of the revised system indicated that there would only be a 3 m improvement in pressures on Coochiemudlo Island at Peak Hour which indicated that the DMA structure is not significantly impacting on the available pressures at Coochiemudlo Island. Option 3 was discounted based on the findings of the *Coochiemudlo Island Water Supply Investigation* (Redland Water, March 2009). (Allconnex Water, May 2011)

Options 2 and 4 were further analysed and modelled. These results show that Option 4 provides the most suitable fire flow for the Island with the two commercial areas along Victoria Parade South receiving a flow of 30 L/s for this option. The modelling indicated that for Option 2, the available fire flows would be less than 30 L/s. The preferred option was found to be Option 4. (Allconnex Water, May 2011)

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that “Trigger based on the original planning demands was expected to be 2008. Constant review of those demands and the pressures in the system has seen the programmed year move out to 2014-15.”

The *Project Concept - Benfer Rd DMA Network Upgrade* (Redland City Council, 7 August 2012) states that the preferred option is to construct pipe network augmentations. An alternate option is to not augment the network, thereby not complying with the Redland City Council's Desired Standards of Service.

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council indicated the Redland City Council water supply network model was last updated in 2011 and is currently being reviewed. Redland City Council stated that projects to be completed are identified through

analysis of the water supply network model. Section of network which fail the fire flow and peak hour pressure requirements outlined in the *SEQ Water Supply and Sewerage Design and Construction Code* and Redland Water's Desired Standards of Service are identified. Augmentations to the network are made in the model to determine the solution required.

The works proposed to be completed in the review period are:

- Giles Road to Double Jump Road augmentation (1,187 m of 375 mm diameter water main)
- Masters Avenue augmentation to start of Coochie submarine pipeline (196 m of 200 diameter water main)

SKM considers that an appropriate methodology has been used for the identification of sections of the water network requiring augmentation. SKM considers that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described.

C.5.2 Project delivery

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the works will be designed utilising the Panel of Providers for Engineering Consultancy and then a construction contract will be sought for some of the works.

No information was provided regarding the purchase of construction materials.

SKM considers the use of the Engineering Consultancy Panel for the completion of the design work to be appropriate. SKM considers the completion of the construction works by contractors appropriate given that internal staff will not always be available to undertake the works.

The *Project Concept - Benfer Rd DMA Network Upgrade* (Redland City Council, 7 August 2012) included the following project schedule for the works.

Table C.3 : Project schedule (Redland City Council, 7 August 2012)

Key activity or milestone	Start Date	Finish Date
Project Start	1/07/2014	
Designs completed		30/06/2015
Construction completed		30/06/2016
Project Review		30/06/2016

SKM considers that the scope of work will not be completed within the review period and therefore the expenditure should only be included once the work has been completed and commissioned.

C.6 Standards of service

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the works will be constructed in accordance with the Redlands Planning Scheme requirements and the SEQ Water Supply and Sewerage Design and Construction Code and/or WSAA standards as they apply.

SKM considers that the use of these standards is appropriate for the project.

C.7 Project cost

The *Project Brief - Benfer Rd DMA Network Upgrade* (Redland City Council, 25 June 2012) includes a budget of \$3.77 million for the total project.

The budgets for the 2013-14 and 2014-15 financial years, from two different sources, are outlined below.

Table C.4 : Project cost

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	2015-2016 (\$'000)	Total (\$'000)
<i>Project Financial Summary – Redland Mainland WSS Network Upgrade</i> (Redland City Council, no date)	0	193	773	966
<i>CapEx_Costs_Sept12 spread sheet</i> (Redland City Council, September 2012)	0	193	773	966

As can be seen from Table C.4 the expenditure for the project is the same in both source documents.

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that:

“Costs estimates for this work were originally generated for the RCC PIP. Costs were generated using the GCW Unit Rates Report 2008. No CPI adjustments have been made to the base rates to allow for the relatively high starting price and the slowdown in the construction market providing more competitive priced works.”

Based on SKM understanding of the scope of works and unit rates from review of work being completed by similar entities, SKM developed a cost estimate for the project. A comparison of SKM’s estimated cost and Redland City Council budget is presented below.

SKM notes that a 30% contingency and a 20% professional fees and on-costs allowance were included in Redland City Council estimate. SKM considers the contingency allowances made by Redland City Council to be excessive. SKM has therefore allowed a 20% contingency allowance.

Table C.5 : Comparison of cost estimate

Redland City Council [†] Estimate (\$)	SKM Estimate (\$)	Difference	
		Value (\$)	Percentage (%)
965,920	1,144,699	178,779	19

[†] *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012)

As can be seen from the Table C.5, SKM’s estimated cost for the project is approximately 19% higher than Redland City Council’s estimate. SKM recommends that Redland City Council review the use of the *GCW Unit Rates Report* to confirm that the units applied are consistent with market conditions as the costs calculated by SKM are higher than Redland City Council’s estimate.

SKM considers that the development of cost estimates based on unit rates from unit rates and recently completed projects is acceptable. SKM considers the cost estimate for the project to be to be efficient.

C.8 Efficiency gains

No efficiency gains have been identified for this project.

C.9 Implications for operating expenditure

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

C.10 Policies and procedures

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

Table C.6 : Benfer Rd DMA Network Upgrade project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudence 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 programme.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Yes	The <i>Redland Water QCA Submission – For 6 Selected Review Projects</i> (Redland City Council, September 2013) states that: “Various options are assessed in the network modelling phase of the Master Plan preparation. Demand Management does not generally offer a viable alternative when designing for the peak hour demand and the minimum fire flow provision standards.”
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	Redland City Council does not have a standardised approach to cost estimating. The <i>Water Supply Network Master Plan Northern District</i> (Allconnex Water, May 2011) recommends the use of GCW <i>Unit Rates Review – 2008</i> allowances. The contingency (30%) and on-cost (20%) allowances applied are in line with the recommendation.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	<i>Project Concept - Benfer Rd DMA Network Upgrade</i> (Redland City Council, 7 August 2012)
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	Redland City Council does not have a ‘toll gate’ or ‘gateway’ review process in line with the Authority's requirements.
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 new sections of 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	

C.11 Prudence and efficiency

SKM considers that based on the information provided growth would be a more appropriate driver for the project. Given that due to population increases sections of the network are not meeting peak hour pressures and therefore fire flow provision required under the *SEQ Water Supply and Sewerage Design and Construction Code*. SKM concurs that an appropriate methodology has been used for the identification of sections of the water network requiring augmentation. SKM concludes that an appropriate options evaluation process has been undertaken and the scope of work is appropriate for the purpose described. As such SKM find the project to be prudent.

SKM considers the use of the Engineering Consultancy Panel for the completion of the design work to be appropriate. SKM believes that the completion of the construction works by contractors appropriate given that internal staff will not always be available to undertake the works. SKM concludes that the scope of work will not be completed within the review period and therefore the expenditure should only be included once the work has been completed and commissioned.

SKM is of the opinion that the development of cost estimates based on unit rates from unit rates and recently completed projects is acceptable. SKM considers the cost estimate for the project to be to be efficient.

The project will be completed outside of SKM's review period. The costs should only be included into the RAB once the project has been completed and commissioned.

C.12 Assessment of reported expenditure

Table C.7 below identifies the revised capital expenditure for the Benfer Rd DMA Network Upgrade project.

Table C.7 : Benfer Rd DMA Network Upgrade project revised capital expenditure (as incurred)

Project	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
Benfer Rd DMA Network Upgrade [†]	0	193	193
SKM proposed value	0	193	193
Variation (to QCA submitted value)	0	0	0

[†] Source: 'Copy of 10 year capex report additions combined.xls'

For the ten year expenditure profile, SKM recommends that the expenditure outlined in the *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012) be adopted.

Table C.8 : Benfer Rd DMA Network Upgrade project 10 year proposed capital expenditure (\$'000) ('Copy of 10 year capex report additions combined.xls') (as commissioned)

Source	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Benfer Rd DMA Network Upgrade [†]	0	193	773	0	0	84	336	0	476	1,904	3,766
SKM proposed value*	0	0	0	966	0	0	420	0	0	2,379	3,766
Variation (to QCA submitted value)	0	-193	-773	966	0	-84	84	0	-476	475	0

[†] Source: 'Copy of 10 year capex report additions combined.xls'

* Source: *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012)

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 Redland City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix D. Pumps

The pumps project involves the replacement of pumps due to condition, age and obsolescence.

D.1 Proposed capital expenditure

Table D.1 shows the proposed cost of the pumps project within the 2013-15 budget.

Table D.1 : Pumps project proposed capital expenditure

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	359	369	1,109
'Copy of 10 year capex report additions combined.xls'	359	369	1,109

The expenditure for this review period (2013-15) is identical.

SKM notes that for the pumps project, expenditure is distributed throughout the ten year programme, as outlined below. From this, SKM concludes that the costs are forecast to increase by approximately 3% per year.

Table D.2 : Pumps project 10 year proposed capital expenditure

Expenditure (\$'000)										
2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
359	369	381	392	404	416	428	441	454	468	4,112

SKM's review focuses on the 2013-15 review period.

D.2 Documentation reviewed

The key reference documents used for this review are:

- *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013)
- *Pumping stations Initial Risk List* (Redland Water & Waste, 30 September 2013)
- *Hardwood Drive Sewage Pumping Station SPS134 - Needs Specification* (Redland Water, 24 September 2013)
- *Redland Water - Pump Quotation Request - Pump Station 134* (Redland Water, 2013)
- *Memorandum - Pump Selection SPS 134* (Redland City Council, 21 October 2013)
- *Evaluation WSA 101 – 2008 PS 134 spread sheet* (Redland City Council, 2013)
- *PS ranking methodology* (Redland City Council, no date)

D.3 Key drivers

The primary cost driver identified by Redland City Council for this project is renewal.

Assets deteriorate over time to such an extent that a given asset will no longer be economic to maintain after a given period of time due to increased cost of repair and increased failure rates. This could lead to a total failure of the asset and ultimately unplanned cessation of the pump station operation.

The standard asset life for a pump for this application and range of duty is 15 years. Redland City Council plan to replace pumps which are approximately five years past the end of their nominal design life.

SKM considers that renewal is the appropriate driver for this project as a review of asset age shows that the pumps have or will have reached the end of their useful life at the time of their planned replacement and failure to replace could result in pump station overflows.

D.4 The scope of works

D.4.1 Solutions development

Limited documentation was provided by Redland City Council in regarding the process used for the inclusion of pumps in the programme.

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council indicated a risk based replacement programme was being developed based on age and availability of parts. Redland City Council also indicated that once a pump has been identified for replacement its condition is assessed, and a determination to replace the pump “like for like” or a different size is made based on review of future network demand requirements.

Redland City Council provided example documentation for a pump station (SPS 134) included in the 2013-14 replacement programme. The documentation provided was:

- *Hardwood Drive Sewage Pumping Station SPS134 - Needs Specification* (Redland Water, 24 September 2013)
- *Pump Quotation Request - Pump Station 134* (Redland Water, 2013)
- *Memorandum - Pump Selection SPS 134* (Redland City Council, 21 October 2013)
- *Evaluation WSA 101 – 2008 PS 134 spread sheet* (Redland City Council, 2013)

SKM considers the provided documentation and method contained therein appropriate for the assessment of the pump station and hence the replacement of the pumps in SPS 134 to be reasonable.

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council indicated that in 2013-14 the pumps in six pump stations were to be replaced. Five pump replacements are driven by condition review (SPS 21, 49, 62, 67 and 100) and one by age (SPS 134). The condition driven replacements are determined based on consultation with operations staff and the performance of pumps from the SCADA system.

The age of the pumps scheduled to be replaced in 2013-14 are outlined below.

Table D.3 : Pump age for 2013-14 programme (Redland City Council, 2013)

Pump Station	Pump 1		Pump 2		Required Work
	Year Installed	Age	Year Installed	Age	
SPS21	2005	8	2004	9	Upgrade of current pumps, electricals and emergency storage
SPS49	2011	2	2011	2	Upgrade of pumps, electricals and well size
SPS62	2003	10	2003	10	Upgrade of pumps, electricals, emergency storage and overflow structure
SPS67	1985	28	1985	28	Upgrade of current pumps, electricals and emergency storage
SPS100	2004	9	2006	7	Upgrade of emergency storage only
SPS134	1993	20	1993	20	Upgrade of current pumps and electricals

Initially insufficient documentation was been provided to clearly indicate whether the costs associated with the electrical infrastructure, emergency storage, overflow structure or well size works identified above are included in the pumps project budget or identified to allow the work to be completed at the same time as the pump work.

In the *RCC response to SKM draft price monitoring report - December 2013 - Version 3* (December 2013), Redland City Council state that:

“The pumps programme is purely to do with pumps – hence the budget items are devoted purely to pumps, other items are in other capital programs for example electrical and civil components.

The line items supplied have come from the combination of the master planning done across Redlands that were then inputted into the pumps programme. They were included for clarity to show that the pumps programme is also part of the execution of the master plans.”

Subsequent to submitting the draft report, Redland City Council provided its pump station ranking methodology (Redland City Council no date). The *PS ranking methodology* (Redland City Council no date) is based on age, condition, hydraulic performance and risk to the organisation. Following SKM's on review of this documentation SKM considers that the inclusion of SPS21, SPS49 and SPS100 in the programme has been justified.

In relation to SPS 62, although it is recorded as achieving the highest (best) score in all four categories assessed and no additional issues were noted in the *PS ranking methodology* (Redland City Council no date) additional commentary in relation to its inclusion in the programme was provided in the *RCC response to SKM draft price monitoring report - December 2013 - Version 3* (December 2013). In this response Redlands City Council stated:

SPS 62 pumps failed last month, thereby proving the condition of the pumps and possibly justifying its existence on the programme. Typically comments from operations on asset condition have been reliable. New pumps have already been placed due to the urgency of the situation.

Based on this additional information, SKM considers the inclusion of SPS62 in the programme to be appropriate.

SKM has reviewed the *PS ranking methodology* (Redland City Council no date). The frequency of replacement for some of the pumps is, in SKM's opinion, high. In the PS ranking methodology, there is mention of early wear (e.g. corrosion after 5 years) and hence replacement being required more often than otherwise may be anticipated. SKM recommends that an investigation be conducted into the following pump stations to see if a higher specification of pump/ impeller material can be employed: 1, 2, 31, 35, 43, 47, 54, 56, 86, 107, 110, 131, 141, 153. If a higher spec material can be used this may lower the frequency of pre-mature replacements (i.e. earlier than the assumed 15 year pump life).

In addition, from a review of flow rate data from the EP worksheet, some pumps are under specified for the flow rate required. SKM accepts that the flow rates may only be over by a few percent and are only to happen during PWWF, so the use of under sized pumps is appropriate. However, the flow rates should again be considered as part of any future upgrade.

SKM notes that for some pump stations, if only one pump has reached the age driver criteria, only one pump is nominated for replacement (eg Pump Station 13 and 114). In other instances both pumps at a pump station are nominated to be replaced while only one pump will have met the age driver criteria (eg Pump Station 26). SKM recommends that the age and condition of all pumps is considered when selecting pumps to be replaced, along with technical and operational considerations, and financial considerations, such as mobilisation costs. In addition, SKM notes that for some of the pumps listed, it may only be necessary to replace the pump impellers rather than replace the entire pump.

The *Pump Replacement Programme - Priority List spread sheet* (Redland City Council, 2013) indicates that for the 2014 to 2019 period 80 pumps, in 51 pump stations, are required to be replaced as they are greater than 15 years old.

Based on the information provided, SKM understands that the 2013-14 programme includes the replacement of 12 pumps ranging from 5.9 kW to 75 kW. The exact programme for 2014-15 is not defined however SKM understand that it will include approximately 24 pumps, of various sizes, which are over 25 years old. SKM considers that the replacement of pumps in keeping with an industry standard operating life, of 15 years, is acceptable and prudent.

Table D.4 : 2013-14 pump replacement programme (Redland Water & Waste, 30 September 2013)

Pump Size (kW)	Number to be replaced
5.9	2
13.5	2
22	2
37	2
37.4	1
40	1
56	1
75	1
Total	12

Redland City Council stated, in its response to SKM's draft price monitoring report - December 2013 - Version 3 (December 2013), that:

The programme is divided up into 5 years sections as yearly programs with the current fleet (a significant part of which is past 15 years old) proves to be highly variable as units planned for replacement in say 2 years fail before "planned" replacement and therefore move in and out of the years budget. This is a consequence of running the units well past the 15 years normal replacement time.

SKM accepts that there a large number of pumps within the Redland City Council fleet that are beyond their nominal 15 year pump life and/or are in poor condition. SKM also considers that the process used for the development of programs of work, based on age, condition, hydraulic performance and risk to the organisation, to be appropriate and in line with good industry practice. SKM notes that whilst some pumps have notes suggesting poor condition, they score highly against the condition assessment rank (eg Pump Stations 1 and 2). SKM recommends that this ranking is reviewed and amended as required. In addition, SKM notes that when selected for replacement, the specification for the new pumps is well documented.

SKM finds that the proposed programme is prudent with the exceptions as listed above (eg replacement of two pumps at the same time where one is still within the 15 year operating life, or pumps where refurbishment options may be preferable to full replacement).

D.4.2 Project delivery

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the project will be delivered through a competitive quote process for purchase of the pumps and the installation will be carried out by internal crews and contractors as required.

The *Pump Quotation Request - Pump Station 134* (Redland Water, 2013) was issued to four suppliers for the supply of the pumps required for SPS134. The *Pump Quotation Request* specified the requirements for the pumps and outlines the applicable Water Services Association of Australia (WSAA) requirements.

Two suppliers stated that they could not supply (KSB and Grundfos) the required head and discharge satisfactorily, while two suppliers submitted quotes (Xylem and Wilo). The two quotes received were assessed by Redland City Council. The quote received from Wilo did not satisfy the requirements of Redland City Council.

Clarification and a price breakdown were sought on the quote received from Xylem. On receipt of the required clarification, it was recommended to proceed with the Xylem quote (Redland City Council, 21 October 2013).

SKM considers that the process used for the purchase of pumps to be appropriate given that the four suppliers were invited to tender for the works. SKM considers the installation of the pumps by internal crews or contractors as required appropriate given that internal staff will not always be available to undertake the works. However, SKM is of the opinion that investigation should be undertaken in to the potential cost savings associated with the bulk purchase of required pumps and the costs associated with storage and inventory to determine if efficiency gains can be made.

In response to SKM’s draft report, Redland City Council has advised:

“Due to the size of the programme economies of purchasing do not come into play, especially when technically you cannot purchase all pumps from the same supplier (see SPS 134 capital train where only one supplier could supply that particular pump). We would concede some efficiency at the smaller pumps but from our experience cost savings in pump replacement have more to do with the \$AUD compared to the German or Swedish currencies.

In light of this, SKM supports further investigation of the bulk purchase of pumps.

D.5 Standards of service

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the works will be constructed in accordance with the Redlands Planning Scheme requirements and the SEQ Design and Construction Code and/or WSAA standards as they apply.

The *Pump Quotation Request - Pump Station 134* (Redland Water, 2013) includes the *Needs Specification* (Redland Water, 24 September 2013) and a copy of the *WSA 101 – 2008 Industry Standard for submersible Pumps for Sewage Pumping Stations*.

SKM considers that the use of these standards is appropriate for the pump replacement programme.

D.6 Project cost

The *'Copy of 10 year capex report additions combined.xls'* includes the following distribution of the project costs.

Table D.5 : Project cost

2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
359	369	728

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council indicated that the budget value submitted to the Authority was based on the historical value of pumps replaced. It was indicated that this was for approximately 20 pumps but the value could vary greatly depending on the size of pump to be replaced.

In the Redland City Council’s response to SKM draft price monitoring report - *December 2013 - Version 3* (December 2013), Redland City Council states:

Budget (currently set at \$369K/yr) is set upon overall Council financial considerations and historical/previous spend. Current estimates place forward budgets as higher than previous. These still needs to be reviewed internally with Council to increase spend or mitigate risk with alternative measures.

The RCC response to SKM draft price monitoring report - *December 2013 - Version 3* (December 2013) further states:

Costings – have come from Cardno Unit rates – reviewed and accepted by GHD in the asset revaluation in 2012/3. These rates have been used in the forward estimates of costings for the first 5 years of the programme. The second 5 years have had a cost loading of 20% to keep in line with prices rises. Both pumps are usually noted in replacement for each pumping station as typically this is required. Only when it is known that a new pump has been placed in the station that a single pump replacement cost has been calculated.

The SPS Capital Works Planning Priority spread sheet was provided by Redland City Council subsequent to the Review Meeting. The spread sheet indicates that for the period 2014 to 2019 approximately \$764,000 would be spent on the programme replacing 80 pumps and the for the 2020 to 2024 period approximately \$840,500 would be spent replacing 34 pumps.

Utilising SKM's understanding of the scope of works (as discussed in **Section D.4.1**), and unit rates from recent projects, SKM developed a cost estimate for the 2013-14 programme. A comparison of SKM's estimated cost and Redland City Council budget in presented below.

Table D.6 : Comparison of pump replacement cost estimate

Component	Redland City Council estimate (\$)	SKM estimate (\$)	Difference	
			Value (\$)	Percentage (%)
Pump cost	NA	248,400	NA	NA
Installation	NA	19,200	NA	NA
Project and contract management (@10%)	NA	26,760	NA	NA
Total	359,000	294,360	-64,640	-18

As can be seen from the **Table D.6**, SKM's estimated cost for the 2013-14 programme is approximately 18% lower than Redland City Council's estimate. SKM considers this difference to be within estimating tolerances at this level of estimation (order of magnitude) and therefore acceptable. The difference could be attributed to SKM utilising an incomplete scope of works. SKM did not develop a cost estimate for the 2014-15 programme as the scope of works was not currently well understood.

The Redland City Council response to SKM draft price monitoring report - December 2013 - Version 3 (December 2013) states:

"Costs were sourced from work done by Cardno on local rates and confirmed and used by GHD in the asset replacement costs"

SKM considers that the use of quotes and tenders and unit rates from recent similar projects is an appropriate process for the development of forward budgets.

D.7 Efficiency gains

No efficiency gains have been identified for this project.

D.8 Implications for operating expenditure

It is anticipated that new modern pumps planned to be used to replace existing pumps would have a greater operational efficiency, and therefore use less electricity, than the older pumps they are replacing. There are therefore likely to be operating cost savings arising from the pump replacement programme over and above those arising from reduced maintenance requirements.

D.9 Policies and procedures

Table D.7 below identifies how the project has complied with the appropriate policies and procedures.

Table D.7 : Pumps project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudence and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Not applicable	The consideration of prudence and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective is not applicable to this programme.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Not applicable	Alternative investments such as the substitution between operating costs and capital expenditure are not applicable to this programme.
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	Redland City Council does not have a standardised approach to cost estimating. The Water Supply Network Master Plan Northern District (Allconnex Water, May 2011) recommends the use of GCW Unit Rates Review – 2008 allowances. No contingency has been applied for the project while the on-cost applied (10%) is lower than the recommended on-costs (of 20%). The <i>RCC response to SKM draft price monitoring report - December 2013 - Version 3</i> (December 2013) states: <i>“Cost estimation for the pumps programme has been completed for the complete pump fleet. Therefore we consider this as a standard cost estimation across all our pumping assets. Costs were sourced from work done by Cardno on local rates and confirmed and used by GHD in the asset replacement costs”</i>
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	No	No summary document for the programme has been provided. The <i>Redland City Council response to SKM's draft price monitoring report - December 2013 - Version 3</i> (December 2013) states: <i>“The project is a pump replacement programme and we do not consider this as a major project. Standard accountancy reporting occurs on the programme along with budgets, spend and the priority list changes giving direction but we disagree to the requirement due to the size of the organisation and the nature of the programme.”</i>
An implementation strategy to be developed for each major project	No	No evidence of a documented implementation strategy for the programme 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	Partial	<p>Redland City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements.</p> <p><i>The Redland City Council response to SKM's draft price monitoring report - December 2013 - Version 3 (December 2013) states:</i></p> <p><i>"We do not consider the pump replacement programme to fall into this category. Review occurs at budget level on expenditure. Review due to the age of the pumps has occurred with associated risks at the priority stage with discussions with operations. Due to the age and current level of expenditure most of the pumps replaced are well past "industry standard" replacement timeframes.</i></p> <p><i>A gateway process on the occurrence of infield pump failure would not be prudent or efficient due to the low \$ value associated with each purchase.</i></p> <p><i>There is a gateway review process at the engineering level at the design/replacement stage as errors can occur at a technical level but this is captured in the counter sign off of the Needs Specification – see signoff page on supplied Needs Specification. In summary operation must seek design office approval on all pump purchases."</i></p> <p>SKM accepts that the counter sign off of the Needs Specification is appropriate for individual pumps. However, SKM recommends that the overall budget for this rolling programme be incorporated into and hence part of a gateway review.</p>
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 pumps within existing pump stations, the compatibility of new pumps with the existing infrastructure is a significant consideration.
Includes only commissioned capital expenditure from 1 July 2010 in the regulatory asset base (RAB) and therefore prices	Yes	

D.10 Prudency and efficiency

SKM considers and agrees with Redland City Council that renewal is the appropriate driver for the project as the majority of the pumps have reached the end of their useful life and failure to replace could result in licence non-compliances as well as uneconomic maintenance costs. SKM agrees that there a large number of pumps within the Redland City Council fleet that are beyond their nominal 15 year pump life and that the specification for the new pumps is well documented. SKM considers that the process used for the development of programs of work, based on age, condition, hydraulic performance and risk to the organisation, to be appropriate and in line industry practice.

SKM finds that the proposed programmes are prudent with the minor exceptions as listed previously (eg replacement of two pumps at the same time where one is still within the 15 year operating life, or pumps where refurbishment options may be preferable to full replacement).

SKM considers that the process used for the purchase of pumps to be appropriate given that the four suppliers were invited to tender for the works. SKM believes that the installation of the pumps by internal crews or contractors as required is appropriate given that internal staff will not always be available to undertake the works.

SKM considers that the use of quotes and tenders and unit rates from recent similar projects is an appropriate process for the development of forward budgets. SKM finds the costs to be efficient.

SKM recommends that an investigation should be undertaken in to the potential cost savings associated with the bulk purchase of required pumps and the costs associated with storage and inventory to determine if efficiency gains can be made.

D.11 Assessment of reported expenditure

Table D.8 below identifies the revised capital expenditure for Pumps project.

Table D.8 : Pumps project revised capital expenditure

Project	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
Pumps	359	369	728
SKM proposed value	359	369	728
Variation (to QCA submitted value)	0	0	0

For the ten year expenditure profile, SKM recommends that the findings applicable to the 2014-15 period be adopted until clarification is provided.

Table D.9 : Pumps project 10 year proposed capital expenditure ('Copy of 10 year capex report additions combined.xls')

Project	Expenditure (\$'000)										Total
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	
Pumps	359	369	381	392	404	416	428	441	454	468	4,112
SKM proposed value	359	369	381	392	404	416	428	441	454	468	4,112
Variation (to QCA submitted value)	0	0	0	0	0	0	0	0	0	0	0

D.12 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 Redland City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix E. Meter Replacement Programme

E.1 Project description

Redland City Council owns and maintains a total of over 51,000 residential and non- residential meters. Water meter replacement is carried out against a range of replacement parameters. Redland City Council has an obligation to measure water consumption through the provision and maintenance of accurate water meters in order to provide an account that states the volume of water supplied through the meter during a billing period. This obligation requires Redland City Council to maintain a fleet of accurate water meters and to ensure any damaged, stopped or old water meters are replaced in a timely manner. It is noted that the Meter Replacement Programme is being managed by Redland City Council, not by Redland Water.

Implementation of a water meter replacement strategy will afford Redland City Council an effective revenue protection measure as it will aid the prevention, detection and recovery of water losses. The replacement programme will continually replace old and high usage meters which generally lose accuracy over time and usage, resulting in under-registration of the actual volume passed through the meter resulting in revenue loss for Redland City Council.(Redland City Council, 30 July 2012)

E.2 Proposed capital expenditure

Table E.1 shows the proposed cost of the Meter Replacement Programme within the 2013-15 budget.

Table E.1 : Meter Replacement Programme proposed capital expenditure

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	308	317	624
'Copy of 10 year capex report additions combined.xls'	308	317	624

SKM notes that the expenditure for the 2013-15 review period is the same for both the data provided in the Information Template and that set out in the 'Copy of 10 year capex report additions combined.xls' spread sheet.

SKM notes that for the Meter Replacement Programme, expenditure is distributed throughout the ten year programme, as outlined below. It is apparent from a review of the forecast expenditure that the costs are increasing by approximately 3% per year.

Table E.2 : Meter Replacement Programme 10 year proposed capital expenditure

Expenditure (\$'000)										
2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
308	317	326	336	346	357	367	378	390	401	3,525

SKM's review focuses on the 2013-15 review period.

E.3 Documentation reviewed

The key reference documents used for this review are:

- *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013)
- *Project Justification Report for 2007/08* (Redland Water & Waste, no date)
- *Water Meter Replacement Strategy* (Redland City Council, 30 July 2012)

E.4 Key drivers

The primary cost driver identified by Redland City Council for this project is renewal.

The drivers for the meter replacement programme are the key performance parameters for the in-service meters, notably the following:

- The measurement error rate of meters: especially where these exceeds allowable limits of $\pm 4\%$ for 20 mm meters and $\pm 5\%$ for other meters in general
- The revenue loss of meters: of importance when meters reach their replacement point where it becomes economically beneficial to replace/refurbish
- The attrition rate: viz the number of unscheduled meter replacements occurring each year due to meter failure or performance deficiencies (Redland Water & Waste, no date)

SKM has identified compliance as a secondary driver. The conclusion that this project is also driven by compliance is supported by the following:

- The *National Measurement Act 1960* details a legal obligation which requires that utility meters used for trade must be verified in terms of accuracy of measurements in accordance with relevant standards:
 - *Australian Standards 3565.1 - 2010: Meters for cold and heated drinking and non-drinking water supplies - Technical requirements*
 - *Australian Standards 3564.4 - 2007: Meters for water supply - In-service compliance testing*

Specifically, the *Australian Standard 3564.4 - 2007: Meters for water supply - In-service compliance testing* sets out the criteria for testing 20 mm water mains. The standard came into effect in 2007 and deemed all meters to have initial compliance testing of 1,920 kL or 8 years from the date they were installed.

SKM considers that renewal is the primary driver for the project given the legislative requirements and the need to replace assets beyond their useful life with a secondary driver being compliance.

E.5 The scope of works

E.5.1 Solutions development

The project was developed on the bases of economic modelling, and prioritised in terms of meter age, meter condition and risk factor.

Redland City Council has adopted three business rules in relation to water meters, these are:

- 1) All meters will be managed and replaced on a cyclical basis in consideration of the meter age and volumetric throughput
- 2) Stopped or damaged meters will be given priority for replacement to ensure a meter is not estimated in two consecutive billing cycles
- 3) Meters will only be replaced after the meter has been read for the current billing quarter (Redland City Council, 30 July 2012)

Redland City Council considers that there are three basic options facing meter replacement:

- Do nothing approach: This is not a viable option as an increasing number of meters are either failing or going out-of-tolerance, with consequential risks to Council's Standards of Service standards.
- New for old: Meters are predominantly mechanical devices with limited life due to wear mechanisms. Hence replacing old with new is an appropriate good solution as the duty is unlikely to have changed significantly. It is also an attractive option as new meters offer revenue benefits being more accurate, efficient and reliable than old generation technology.

- Refurbishment: Small meters (sizes 20 mm to 40 mm) are generally not repairable. Thus refurbishment is not an option in these sizes. However refurbishment may be viable with large meters where spare parts are available. Some facilities such as Brisbane Water Meter Workshops offer a refurbishment service. (Redland Water & Waste, no date)

Redland City Council came to the conclusion that replacing old with new is the best option. The only exceptions would be large meters (such as Elster Helix 4000) on high consumption properties where it would be more economical to refurbish existing meters. (Redland Water & Waste, no date)

The *Project Justification Report for 2007/08* (Redland Water & Waste, no date) states:

“In the development of programme priorities, the key factors are:

- a) Revenue benefit: for example if revenue benefit is the highest priority, then those meters with the highest loss factors need to be selected first for replacement*
- b) Compliance: compliance with Australian Standards for meter accuracy is a significant issue, with priority to removing non-compliant meters from service, ie meters past their kilolitre replacement point (20 mm meters over 6,000 kL, 25 mm meters over 30,000 kL, 32 mm meters over 35,000 kL, 40 mm meters over 40,000 kL, 50 mm meters over 100,000 kL, 80 – 150 mm meters over 250,000 kL)*
- c) Reliability: if reliability is a high priority then the oldest meters need to be selected firstly (or models with the highest annual attrition rates), ie meters reaching their planned life-of-type in years (20 mm meters over 12 years old, 25 – 40 mm meters over 12 years old, 50 – 150 mm meters over 14 years old)”*

The *Water Meter Replacement Strategy* (Redland City Council, 30 July 2012) states that as of 1 July 2012 the replacement programme will occur based on the following priority list:

- 1) Stopped and damaged meters
- 2) Meters older than 10 years with more consumption recorded than set in the consumption replacement criteria table
- 3) Meters older than 10 years with less consumption recorded than set in the consumption replacement criteria table
- 4) Meters of any age with more consumption recorded than set in the consumption replacement criteria table

Redland City Council’s long term replacement programme is:

“A meter replacement programme is a long term programme aimed to maintain an accurate meter fleet. To maintain an age of 10 years for all meters it is important to continually replace meters on a rolling programme each year.

The meter replacement programme began as an accelerated programme. More than 35,000 meters are between two and five years of age due to the accelerated programme. It is integral that the age of the fleet be smoothed so that there are no dramatic peaks in age across the fleet. This will occur gradually over the next three to five years to move to a rolling programme of meter replacement.” (Redland City Council, 30 July 2012)

SKM is satisfied that the process by which water meters requiring renewal are identified is appropriate and is in-line with the approach adopted by other, comparable entities.

Redland City Council provided the following scope of works for the 2013-14 and 2014-15 water replacement programmes.

Table E.3 : 2013-14 and 2014-15 water replacement programmes (Redland City Council, no date) (Redland City Council, no date)

Meter Size	Number of Meters to be Replaced		
	2013-14	2014-15	Total
20 mm	4,687	5,000	9,687
25 mm	120	100	220
32 mm	90	75	165
40 mm	48	30	78
50 mm	61	49	110
80 mm	11	7	18
100 mm	26	26	52
150 mm	1	-	1
Total	5,044	5,287	10,331

SKM notes that the *Water Meter Replacement Strategy* (Redland City Council, 30 July 2012) includes an age profile for the 20 mm water meters.

Table E.4 : Number of 20 mm water meters to be replaced by age (Redland City Council, 30 July 2012) †

1 to 5 years old	6 to 9 years old	10 to 15 years old	Over 16 years old	Total
29,167	17,439	3,646	27	50,279

† One year added to the age of each meter as the *Water Meter Replacement Strategy* (Redland City Council, 30 July 2012) was current for 2012

Based on comparison of the age of the 20 mm meters indicated in the *Water Meter Replacement Strategy* and the number of meters proposed to be replaced in the 2013-14 and 2014-15 programmes, SKM does not consider that all of the 20 mm meters in programme will have reached the age replacement trigger. No additional information has been provided by Redland City Council to enable SKM to determine if the meters have reached the consumption replacement trigger or if Australian Standards testing has indicated that a certain type of meter has failed the testing requirements and therefore in need of replacement.

If it is assumed that no 20 mm water meters were replaced last year (which is unlikely considering at the meeting Redland City Council advised that expenditure for 12-13 on the meter replacement programme was \$311,701) approximately 36% of the 2013 to 2014 meter replacements would be aged based. That is, in order to achieve the number of meter replacements predicted in the 2014-15 programme, it will be necessary to replace meters that are eight years old (as opposed to ten years old),

As such, whilst SKM concludes that the replacement of meters which are old or have failed is prudent, SKM concludes that the full scope of works proposed by Redland City Council is not prudent.

E.5.2 Project delivery

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the scope of works for 2013-14 and 2014-15 will be delivered through contractors/suppliers selected via a competitive quote process or that meters, procured through a competitive quote process will be installed by internal crews and contractors as required.

The *Water Meter Replacement Strategy* (Redland City Council, 30 July 2012) states, in relation to the 'Current Meter Replacement Contract':

"A panel arrangement exists for the provision of meter replacements in Redlands, This panel of providers has two approved service providers, HR Plumbing Pty Ltd and Skilltech Pty Ltd. The current contract with the panel is due to end on 30 June 2013."

The *Water Meter Replacement Strategy* (Redland City Council, 30 July 2012) further states, in relation to the 'Current Meter Supply Contract':

"A contract for the supply of water meters is currently in place between Redland City Council and Elster Metering Australia. This contract is due to expire in 2012."

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that a panel of providers, with two contractors, is in place for the installation of water meters with the lower cost provider being used. In relation to the water meter supply contract, Redland City Council stated that a new two year contract is in now place with a single supplier. Redland City Council stated that the contract is capable of being extended for up to five year.

No additional documentation has been provided by Redland City Council in relation to how these contracts have been tendered, evaluated and awarded. As such SKM cannot comment on the appropriateness of the tendering process.

In response to SKM's draft report, Redland City Council stated that "*SKM were advised that contracts are tendered and awarded in compliance with Redland City Council procurement policy and Local Government Regulation. Contracts are evaluated according to appropriately set criteria relevant to the subject matter*".

SKM notes that no evidence was provided to it to support the above statement. As such, SKM is unable to verify that an appropriate tendering process has been undertaken.

SKM considers that the scope of works can be delivered within the proposed timeframe with the utilisation of internal crews and with contractors being used as needed during times of peak activity.

E.6 Standards of service

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the works will be constructed in accordance with the Redlands Planning Scheme requirements and the SEQ D&C Code and/or WSAA standards as they apply.

The *National Measurement Act 1960* requires that utility meters used for trade must be verified in terms of accurate measurement. Australian Standards have been developed for implementation purposes, with the current documents being:

- *AS 3565.1-2010 : Meters for cold and heated drinking and non-drinking water supplies - Technical requirements* (which supersedes AS3565.1 – 2004: Meters for water supply – cold water meters)
- *AS3565.4 – 2007: Meters for water supply – part 4 In-service compliance testing*

The *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009* includes the following requirements:

- s99AG
- Each SEQ service provider must take reasonable steps to ensure each meter recording each of its customers' water consumption is read at least once each year.

SKM considers that the standards used for this project are appropriate.

E.7 Project cost

The 'Copy of 10 year capex report additions combined.xls' includes the distribution of the project costs set out in Table E.5. No details have been provided in relation to how the project costs have been developed, ie the development or source of unit rates, project management costs, contingency allowance.

Table E.5 : Project cost

2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
\$307,500	\$316,700	\$624,200

Subsequent to the meeting with Redland City Council on 17 October 2013, Redland City Council provided the *Future Meter Replacement spread sheet* (Redland City Council, no date) detailing the number and size of the meters to be replaced in the 2013-14 and 2014-15 financial years. As discussed in Section E.5.1. No costs were provided with the scope of works.

SKM developed a cost estimate based on the scope of works and unit rates for the supply and installation of water meters from review of work being completed by similar entities.

Table E.6 : Cost estimate

Programme	Number of meters to be replaced	Redland City Council estimate [†] (\$)	SKM estimate (\$)	Difference	
				Value (\$)	Percentage (%)
2013-14	5,044	307,500	1,024,190	+716,690	+233
2014-15	5,287	316,700	1,065,185	+748,485	+236
Total	10,331	624,200	2,089,374	+1,465,174	+235

[†] Source: 'Copy of 10 year capex report additions combined.xls'

SKM notes that, based on the scope of works provided, SKM's estimate of the cost to complete the works is approximately 230% higher than the expenditure allowed by Redland City Council. SKM considers that this is attributable to Redland City Council basing its cost estimate on a different scope of works rather than using lower unit rates.

In response to SKM's draft report, Redland City Council stated that: *"unit rates are based on quantity. At the meeting SKM were advised that it is inappropriate to equate unit rates for supply or replacement of meters as the quantum of an individual entity's demand has significant effect on the purchasing"*.

SKM understands that the quantity of meters will have an impact on the unit rates. The rates used for direct comparison were from Queensland Urban Utilities which is replacing over 40,000 meters over the same period. However, SKM is of the opinion that a higher quantity of meters should lead to higher efficiencies and therefore lower costs. Taking into account the quantity of meters due for replacement, the unit rate used for estimating costs is considered low.

Based on replacing only meters which are 10 years old or more in the 2013-15 (a total of 5,631 No. 20 mm meters plus 644 No. meters between 25 mm and 150 mm) using the average cost of meter replacements is \$60, as shown in Table E.7.

Table E.7 : 2013-14 and 2014-15 proposed water replacement numbers

Meter Size	SKM proposed number of meters to be replaced		
	2013-14	2014-15	Total
20 mm	3,673	1,958	5,631
25 mm	120	100	220

Meter Size	SKM proposed number of meters to be replaced		
	2013-14	2014-15	Total
32 mm	90	75	165
40 mm	48	30	78
50 mm	61	49	110
80 mm	11	7	18
100 mm	26	26	52
150 mm	1	-	1
Total	5,044	5,287	6,275
Redland City Council estimate (\$)	\$307,500	\$316,700	\$624,200
Average cost per meter	\$61	\$60	

Based on the low unit rates used by Redland City Council, SKM finds the costs to be efficient.

E.8 Efficiency gains

The replacement of faulty or old meters with new meters extends the useful life of the asset.

E.9 Implications for operating expenditure

The replacement of faulty or old meters with new meters reduces the loss of revenue arising from inaccurate readings. However, the resultant reduction in this loss this has not been quantified. In addition, whilst it is expected that that maintenance costs of a new meter will be lower than an old meter; again, this has not been quantified.

E.10 Policies and procedures

Table E.8 below identifies how the project has complied with the appropriate policies and procedures.

Table E.8 : Meter Replacement Programme compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudence and efficiency of capital expenditure from a regional (whole-of-entity and whole-of-sector) perspective	Not applicable	Consideration of prudence and efficiency of capital expenditure from a regional perspective are not applicable to this programme.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Not applicable	Alternative investments such as the substitution between operating costs and capital expenditure are not applicable to this programme.
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	Redland City Council does not have a standardised approach to cost estimating. The <i>Water Supply Network Master Plan Northern District (Allconnex Water, May 2011)</i> recommends the use of <i>GCW Unit Rates Review – 2008</i> allowances. No breakdown of the costs for the project have been provided to determine the contingency and on-cost allowance applied (if any)
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	No	No summary document has been provided for the 2013-14/2014-15 programme.
An implementation strategy to be developed for each major project	Yes	<i>Water Meter Replacement Strategy</i> (Redland City Council, 30 July 2012)

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	No	Redland City Council does not have a 'toll gate' or 'gateway' review process in line with the Authority's requirements.
Information on the compatibility with existing and adjacent infrastructure and consideration of modern engineering equivalents and technologies.	Yes	The programme involves the replacement of existing water meters and therefore consideration of the new meters compatibility with the existing infrastructure is of importance.
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 renewal is the appropriate driver for the project given the legislative requirements and the need to replace assets beyond their useful life. SKM is satisfied that the process by which water meters requiring renewal are identified is appropriate and that it is in-line with the approach adopted by other, comparable entities. Based on comparison of the age of the 20 mm meters indicated in the *Water Meter Replacement Strategy* and the number of meters proposed to be replaced in the 2013-14 and 2014-15 programmes, SKM does not consider that all of the 20 mm meters in the meter renewal programme will have reached the age replacement trigger. No additional information has been provided by Redland City Council to enable SKM to determine if the meters have reached the consumption replacement trigger or if AS testing has indicated that a certain type of meter has failed the testing requirements and therefore is in need of replacement. As such SKM concludes that the scope of works proposed by Redland City Council is not prudent. SKM recommends that a lower number of meters, than proposed by Redland City Council is replaced, and has calculated that a total of 5,631 meters will be 10 years or older within the review period and require replacement.

No documentation has been provided by Redland City Council in relation to how the meter supply and installation contracts have been tendered, evaluated and awarded. As such SKM cannot comment on the appropriateness of the tendering process.

SKM considers that the scope of works can be delivered within the proposed timeframe with the utilisation of internal crews and contractors as needed. SKM considers that the standards used for this project are appropriate.

In consideration of the low unit rates used by Redland City Council, SKM finds the costs of the programme to be efficient.

E.12 Assessment of reported expenditure

Table E.9 below identifies the revised capital expenditure for Meter Replacement Programme.

Table E.9 : Meter Replacement Programme revised capital expenditure

Project	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
Meter Replacement Programme	308	317	624
SKM proposed value	308	317	624
Variation (to QCA submitted value)	0	0	0

For the ten year expenditure profile SKM recommends that the findings of the 2013 to 2015 review be adopted until the required clarifications set out in this report are provided.

Table E.10 : Meter Replacement Programme 10 year proposed capital expenditure ('Copy of 10 year capex report additions combined.xls')

Project	Expenditure (\$'000)										
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
Meter Replacement Programme [†]	308	317	326	336	346	357	367	378	390	401	3,525
SKM proposed value	308	317	326	336	346	357	367	378	390	401	3,525
Variation (to QCA submitted value)*	0	0	0	0	0	0	0	0	0	0	0

[†] Source: 'Copy of 10 year capex report additions combined.xls'

* Source: *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012)

E.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 Redland City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

Appendix F. Redland Mainland WSS network upgrade

F.1 Project description

Redland Water's Master Plan for the water supply network indicates that upgrades of the water supply network are required at various locations within the Redland Mainland Water Supply Scheme (WSS). The augmentations are required in order to maintain Redland Water's Peak Hour and Fire Flow Desired Standards of Service. 2013-14 is the fourth year of the programme.

F.2 Proposed capital expenditure

Table F.1 shows the proposed cost of the Redland Mainland WSS Network Upgrade project within the 2013-15 budget.

Table F.1 : Redland Mainland WSS Network Upgrade project proposed capital expenditure

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
5.6.2 Capital Expenditure Projects and Programmes of SEQ Revenue Monitoring - Information Requirement Template	810	283	1,093
<i>Project Financial Summary – Redland Mainland WSS Network Upgrade</i> (Redland City Council, no date)	810	283	1,093
<i>'Copy of 10 year capex report additions combined.xls'</i>	810	283	1,093
<i>CapEx_Costs_Sept12 spread sheet</i> (Redland City Council, September 2012)	810	283	1,093

SKM notes that there is agreement in the total expenditure for the project between the four sources.

SKM notes that for the Redland Mainland WSS Network Upgrade project, expenditure is distributed throughout the ten year programme, as outlined below.

Table F.2 : Redland Mainland WSS Network Upgrade project 10 year proposed capital expenditure

Expenditure (\$'000)										
2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
810	283	556	181	335	19	7	28	1,016	0	3,236

SKM's review focuses on the 2013-15 review period.

F.3 Documentation reviewed

The key reference documents used for this review are:

- *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013)
- *Project Financial Summary – Redland Mainland WSS Network Upgrade* (Redland City Council, no date)
- *Project Brief - Redland Mainland WSS Network Upgrade* (Redland City Council, 25 June 2012)
- *Project Concept - Redland Mainland WSS Network Upgrade* (Redland City Council, 7 August 2012)
- *Water Supply Network Master Plan Northern District* (Allconnex Water, May 2011)

F.4 Key drivers

The primary cost drivers identified by Redland City Council for this project are growth and renewal.

Various locations within the Redland Mainland WSS were identified as areas where fire flow provision and peak hour pressures in the water supply network can be improved, namely: Banfield Lane; Tipuana Street; Weippin Street; Giles Road; Double Jump Road; Kingfisher Road; Main Street; Ronnie Street; Swallow Street to Cockateil Court; Panorama Drive; Moyston Court; Willowie Crescent; Banks Street; Endeavour Street; Allambee Crescent; and Birkdale Road. (Redland City Council, 25 June 2012).

SKM considers that growth and renewal are the appropriate drivers for the project given that sections of the network are demonstrably not meeting fire flow provision and peak hour pressures required under the *SEQ Water Supply and Sewerage Design and Construction Code* (Redland City Council, no date).

F.5 The scope of works

F.5.1 Solutions development

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council indicated the Redland City Council water supply network model was last updated in 2011 and is currently being reviewed. Redland City Council stated that projects to be completed are identified through analysis of the water supply network model. Sections of network which fail the fire flow and peak hour pressure requirements outlined in the *SEQ Water Supply and Sewerage Design and Construction Code* and Redland Water's Desired Standards of Service are identified. Augmentations to the network are hydraulically modelled to determine the solution required.

The *Project Concept - Redland Mainland WSS Network Upgrade* (Redland City Council, 17 October 2013) identifies two options:

- Preferred Option - Construct pipe network augmentations that satisfy the Redland Water's Desired Standards of Service
- Alternate Option - Not augment the network, thereby not complying with the Redland Water's Desired Standards of Service

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that two projects were scheduled for 2013-14. The *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012) also indicates that there are two projects to be completed in 2013-14 and six projects to be completed in 2014-15.

The works to be completed in 2013-14 are:

- Cumberland Drive Alex Hills HLZ extension (30 m of 150 mm diameter water main)
- Merriot Court Alex Hills HLZ extension (36 m of 100 diameter water main) (Redland City Council, September 2012)

The works to be completed in 2014-15 are:

- Banfield Lane project (246 m of 150 mm diameter water main)
- Ney Road to Tipuana Street fire flow augmentation (522 m of 150 mm diameter water main)
- Redland Hospital augmentation (872 m of 150 mm diameter water main)
- Mount Cotton ICS Zone Connection
- Alexandra Hills ICS Zone 150 mm valve
- Alexandra Hills ICS Zone 200 mm valve (Redland City Council, September 2012)

SKM considers that an appropriate methodology has been used for the identification of sections of the water network requiring augmentation and development of the scope of works. As such, SKM finds the project to be prudent.

F.5.2 Project delivery

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the works will be designed utilising the Panel of Providers for Engineering Consultancy and then a construction contract will be sought for some of the works with the rest of the construction programme undertaken by internal construction crews. From discussion at the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013) SKM understands that for contracts less than \$15,000, a consultant can be awarded the work through a one-on-one verbal quotation. Refer to **Section 5.4** for further discussions on awarding contracts under \$15,000.

At the *Redland Price Monitoring Review Meeting* (Redland City Council, 17 October 2013), Redland City Council stated that the decision to go with internal crews or contractors will be dependent on the availability of internal crews, the risks associated with the works and the location of the work (ie. if work is to be undertaken on North Stradbroke Island internal crews would generally be used).

Subsequent to the *Price Monitoring Review Meeting*, Redland City Council provided the costs for a number of projects completed in 2009 to 2012 by an external D&C contract (four); external design then external construct (six); and external design then internal construct (one). A comparison of the cost per meter for the work is outlined below.

Table F.3 : Comparison of the cost per meter for different delivery methods (Redland City Council, no date)

Diameter (mm)	External D&C contract (\$/m)	External design then external construct (\$/m)	External design then internal construct (\$/m)
100	595	NA	NA
150	524	362	185
200	NA	559	NA
300	NA	559	NA

As can be seen from **Table F.3**, for 150 mm mains the cost per meter for the external design then internal construct is materially cheaper than the other two options, with external design then external construct cheaper than an external D&C contract. SKM notes that, as only external design then internal construct was recorded, the rates received for this project could be anomalous and not reflective of future costs. SKM recommends the monitoring of construction rates continues to be undertaken to allow benchmarking of the internal staff costs against work delivered by external parties on the basis of competitive tendering.

No information was provided regarding the purchasing of the construction materials.

In response to SKM's draft report, Redland City Council stated that it has *"an approved supplier arrangement for Plumbing, Water and Sewer Pipe & Fittings. The supply of pipes and fittings is generally only done when Redland City Council is constructing an augmentation. The utilisation of this supply contract gives some economies of scale when completing "one-off" augmentations as the rates on the supply contract take into account the other items Redland City Council purchases over the course of a year for its entire water supply and wastewater operations. Where augmentations are constructed using a contractor, the contractor is required to supply and install all materials."*

In consideration of the above, SKM considers the above process to be reasonable.

SKM considers the use of the Engineering Consultancy Panel for the completion of the design work to be appropriate, if tendered. For contracts under \$15,000, there is insufficient information to determine if an efficient process is being applied. SKM considers the completion of the construction works by internal crews or contractors as required to be appropriate given that internal staff will not always be available to undertake the

works. Based on review of the information provided, SKM considers that the use of internal staff as the first option the most efficient method for the delivery of construction works.

SKM considers that the scope of work will be completed within the review period.

F.6 Standards of service

The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that the works will be constructed in accordance with the Redlands Planning Scheme requirements and the SEQ Water Supply and Sewerage Design and Construction Code and/or WSAA standards as they apply.

SKM considers that the use of these standards is appropriate for the project.

F.7 Project cost

The *Project Brief – Redland Mainland WSS Network Upgrade* (Redland City Council, 25 June 2012) includes a budget of \$3.49 million for the total project.

The budgets for the 2013-14 and 2014-15 financial years, from two different sources, are outlined below.

Table F.4 : Project cost

Source	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
<i>Project Financial Summary – Redland Mainland WSS Network Upgrade</i> (Redland City Council, no date)	810	283	1,093
<i>CapEx_Costs_Sept12 spread sheet</i> (Redland City Council, September 2012) – total costs	966	187	1,153
<i>CapEx_Costs_Sept12 spread sheet</i> (Redland City Council, September 2012) – detailed planning and design costs	810	283	1,093

In response to SKM's draft report, Redland City Council provided further guidance on its costing spreadsheet ('*CapEx_Costs_Sept12*'). The first table shows the total project costs, which is a summation of all of the individual project costs per project per year. The second table shows the split of the project as per the '*Project Financial Summary*'. This split is undertaken to allow for the design and preliminaries and approvals for the project to be undertaken in the first year and construction in the second year. The costs for the design and preliminaries and approvals for the project are assumed to be 20% of the total project costs.

%The *Redland Water QCA Submission – For 6 Selected Review Projects* (Redland City Council, September 2013) states that:

“Costs estimates for this work were originally generated for the RCC PIP. Costs were generated using the GCW Unit Rates Report 2008. No CPI adjustments have been made to the base rates to allow for the relatively high starting price and the slowdown in the construction market providing more competitive priced works.”

Based on SKM understanding of the scope of works and unit rates from review of work being completed by similar entities, SKM developed a cost estimate for the 2013-14 and 2014-15 programmes. A comparison of SKM's estimated cost and Redland City Council total project costs is presented below.

SKM notes that a 30% contingency and a 20% professional fees and on-costs allowance were included in Redland City Council estimate. SKM considers the allowances made by Redland City Council to be excessive when contrasted to typical allowances used in comparable industries for similar works. SKM has therefore allowed a 20% professional fees and on-costs allowance has been included for both programmes and a 10%

contingency allowance has been included for the 2013-14 programme (as it is currently being delivered) and 20% contingency allowance for the 2014-15 programme. This is to better reflect the risk associated with the different phases the two programmes are in (ie delivery versus design).

Table F.5 : Comparison of cost estimate

Programme	Aspect	Redland City Council's Estimate [†] (\$)	SKM's Estimate (\$)	Difference	
				Value (\$)	Percentage (%)
2013-14	Base cost	603,266	646,667	43,401	7
	Professional fees & on-costs	156,849	129,333	-27,516	-18
	Contingency	180,980	129,333	-51,646	-29
	Total	966,095	905,334	-60,761	-6

[†] CapEx_Costs_Sept12 spread sheet (Redland City Council, September 2012)

As can be seen from the SKM notes that a 30% contingency and a 20% professional fees and on-costs allowance were included in Redland City Council estimate. SKM considers the allowances made by Redland City Council to be excessive when contrasted to typical allowances used in comparable industries for similar works. SKM has therefore allowed a 20% professional fees and on-costs allowance has been included for both programmes and a 10% contingency allowance has been included for the 2013-14 programme (as it is currently being delivered) and 20% contingency allowance for the 2014-15 programme. This is to better reflect the risk associated with the different phases the two programmes are in (ie delivery versus design).

Table F.5, SKM's estimated cost for the 2013-14 programme % is approximately 6% lower. Given this, SKM considers the overall programme costs to be acceptable. These costs are then split between the years as noted above, so that 20% of the costs are incurred in the first year, with the remaining 80% of the works delivered in the second year.

SKM notes that, although the overall programme costs are consistent, the base costs calculated by SKM are higher than Redland City Council's estimate. SKM therefore recommends that Redland City Council reviews the use of the *GCW Unit Rates Report* to confirm that the units applied are consistent with market conditions such that an appropriate and adequate budget for the works is developed.

SKM considers that the use of the escalated values from the *GCW Unit Rates Report* is appropriate, as long as they are reviewed against actual costs as projects are completed to check that they align with market conditions.

SKM concludes that the cost estimate for the works to be completed in 2013-14 and 2014-15 are efficient. SKM recommends that costs are added into the RAB as works are completed, commissioned and commence contributing to the provision of a regulated service.

F.8 Efficiency gains

No efficiency gains have been identified for this project.

F.9 Implications for operating expenditure

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

F.10 Policies and procedures

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

Table F.6 : Redland Mainland WSS Network Upgrade project compliance with the Authority's criteria

Initiative	Achievement (Yes/No/Partial)	Comment
Consideration of prudence 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 programme.
Consideration of alternative investments, the substitution possibilities between operating costs and capital expenditure, and non-network alternatives such as demand management.	Yes	The <i>Redland Water QCA Submission – For 6 Selected Review Projects</i> (Redland City Council, September 2013) states that: “Various options are assessed in the network modelling phase of the Master Plan preparation. Demand Management does not generally offer a viable alternative when designing for the peak hour demand and the minimum fire flow provision standards.”
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	Redland City Council does not have a standardised approach to cost estimating. The <i>Water Supply Network Master Plan Northern District</i> (Allconnex Water, May 2011) recommends the use of <i>GCW Unit Rates Review – 2008</i> allowances. The contingency (30%) and on-cost (20%) allowances applied are in line with the recommendation.
A summary document to be prepared for identified major projects so as to facilitate standardised reporting	Yes	<i>Project Brief - Redland Mainland WSS Network Upgrade</i> (Redland City Council, 25 June 2012)
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	Redland City Council does not have a ‘toll gate’ or ‘gateway’ review process in line with the Authority's requirements.
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 new sections of 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 Prudence and efficiency

SKM considers that growth and renewal are the appropriate drivers for the project given that sections of the network are not meeting fire flow provision and peak hour pressures required under the *SEQ Water Supply and Sewerage Design and Construction Code*. SKM considers that an appropriate methodology has been used for the identification of sections of the water network requiring augmentation and development of the scope of works. As such, SKM concludes that the project is prudent.

SKM considers the use of the Engineering Consultancy Panel for the completion of the design work to be appropriate, if tendered. For contracts under \$15,000, given that only one verbal quote is required, there is insufficient information to determine if an efficient process is being applied. SKM considers the completion of the construction works by internal crews or contractors as required to be appropriate given that internal staff will not always be available to undertake the works. Based on review of the information provided, SKM considers the use of internal staff as the first option the most efficient method for the delivery of construction works.

SKM considers that the use of the selected standards is appropriate for the project.

SKM believes that the use of the escalated values from the *GCW Unit Rates Report* is appropriate, as long as they are reviewed against actual costs as projects are completed to check they align with market conditions. SKM concludes that the cost estimate for the works to be completed in 2013-14 and 2014-15 to be efficient.

F.12 Assessment of reported expenditure

Table F.7 below identifies the revised capital expenditure for the Redland Mainland WSS Network Upgrade project.

Table F.7 : Redland Mainland WSS Network Upgrade project revised capital expenditure

Project	2013-2014 (\$'000)	2014-2015 (\$'000)	Total (\$'000)
Redland Mainland WSS Network Upgrade [†]	811	283	1,094
SKM proposed value	811	283	1,094
Variation (to QCA submitted value)	0	0	0

[†] Source: 'Copy of 10 year capex report additions combined.xls'

For the ten year expenditure profile SKM recommends that the expenditure outlined in the *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012) be adopted.

Table F.8 : Redland Mainland WSS Network Upgrade project 10 year proposed capital expenditure ('Copy of 10 year capex report additions combined.xls')

Project	Expenditure (\$'000)										Total
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	
Redland Mainland WSS Network Upgrade [†]	811	283	556	181	335	19	7	28	1,016	0	3,236
SKM proposed value*	811	283	556	181	335	19	7	28	1,016	0	3,236
Variation (to QCA submitted value)	0	0	0	0	0	0	0	0	0	0	0

[†] Source: 'Copy of 10 year capex report additions combined.xls'

* Source: *CapEx_Costs_Sept12 spread sheet* (Redland City Council, September 2012)

F.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 Redland City Council, SKM does not consider that the findings from this project can be extrapolated to other projects.

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 prudence 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 - Prudence 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 prudence 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 prudence 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 plans³) 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).

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- (c) the Authority's SEQ Interim Price Monitoring Framework (April 2010); and
 - (d) the assessment of prudence 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;

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- 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