Seqwater 2012-13 Grid Service Charges

Submission to the Queensland Competition Authority

February 2012

Contents

Executive Summary

This submission is provided to the Queensland Competition Authority to assist in explaining Seqwater's forecast costs for 2012-13, as detailed in the financial data simultaneously provided by Seqwater.

Grid Service Charges are the amounts that Seqwater can charge the Water Grid Manager for bulk water services.

The SEQ Water Market Rules provide for the Queensland Competition Authority (also known as the Economic Regulator) to investigate and recommend the Grid Service Charges applicable to Grid Service Providers such as Seqwater.

The Minister for Energy and Water Utilities issued a Direction Notice to the QCA, dated 20 October 2011, setting out certain requirements for the QCA's investigation.

In order to assess the prudency and efficiency of the capital expenditure and operating cost forecasts of Seqwater, the Queensland Competition Authority issued the *SEQ Grid Service Charges 2012-13 Information Requirements* on 27 January 2012, which specified a range of financial and business information to be provided to the QCA by 29 February 2012.

This submission has been prepared in response, in addition to the template spreadsheets and other material provided by Seqwater as its Information Response.

Seqwater's proposed expenditure for the purpose of determining Grid Service Charges for 2012-13 is:

		2012-13 Regulatory Budget
Operating Expenditure	Fixed Operating Charge	$ 236,034,166
	Variable Operating Charges	$ 39,344,628
	Allowable Costs	$ 10,587,225
	Total	**$ 285,966,019**
Capital Expenditure	Drought	$ 23,312,000
	Non-Drought	$ 105,342,323
	Total	**$ 128,654,323**

Seqwater has also proposed revenue offsets (including irrigation revenues) to GSCs of $4,497,590.

Seqwater faces increases to its cost base from price increases from suppliers, insurance premium increases, wage rate increases under its Enterprise Bargaining Agreement and additional operating costs arising from recent flooding. These items alone represent an increase to Seqwater's fixed operating cost base of $11.8M, or 5.0%. Seqwater also faces a series of new or expanding compliance obligations that total over $6.1M, or 2.6%. Despite these cost pressures, Seqwater's proposed Fixed Operating Costs have increased (on a like-for-like basis) compared to 2011-12 GSCs by $6.4M or 2.8%. This result has been made possible by savings in other areas of the business, offsetting the underlying growth in costs.

Variable operating costs have also increased compared to 2011-12 GSCs, largely due to changes in input costs. A number of prices for variable cost inputs remain uncertain at the time of making this submission due to factors outside Seqwater's control, and the Variable Operating Charges in this submission are preliminary estimates only.

Seqwater's total budgeted capital expenditure for 2012-13 is $128.5M, which is approximately 1.98% of the value of Seqwater's total existing asset base of $6.5B (estimated as at 30 June 2012).

The capital expenditure programme comprises:

- infrastructure capex – $93.4M; and
- non-infrastructure capex – $35.1M.

That compares to $461.7M capex approved by the QCA for 2011-12, for Seqwater and WaterSecure combined (a decrease of 72.2%). If material, one-off items are excluded (such as $373.5M for the commissioning of the Wyaralong Dam in 2011-12, $19.0M for the compensation payments associated with the WCRWS in 2012-13 and $0.8M for finalisation works pertaining to the Wyaralong Dam in 2012-13), then the capex figures are $88.3M in 2011-12 and $108.6M in 2012-13 (an increase of 20.0% in real terms).

Seqwater has developed its budget on the basis of a zero base build-up, taking into account costs which could be reasonably anticipated at the time of budget development. It is noted that these figures will require adjustment during the regulatory review process, prior to the QCA's final report, to take account of better estimates of the forecast expenditure for:

- implementing the final recommendations of the Queensland Floods Commission of Inquiry in 2012-13;
- variable operating costs, including the impact of the carbon tax legislation on energy inputs and the finalisation of contestable energy contracts and chemical contracts at the Gold Coast Desalination Plant (GCDP) and the Western Corridor Recycled Water Scheme, the impacts of changes to service standards at Molendinar and Mudgeeraba Water Treatment Plants and government instructions relating to the carbon neutrality of the GCDP;

- other such matters where it will be necessary to more accurately forecast expenditure after better information is received between now and the release of the QCA's final report
- any additional changes resulting from continuing contact negotiations between Seqwater and Veolia Water Australia; and
- the expected government contribution/subsidy, relating to the safety upgrades of Maroon Dam and Moogerah Dam, which has been excluded from the capital expenditure forecasts due to current uncertainty around the possible quantum and timing of any amounts likely to be received during 2012-13.

Seqwater has also identified a number of events during 2011-12 that need to be considered under the price review provisions.

Supplementary submissions may therefore be provided by Seqwater for consideration by the Queensland Competition Authority at a later date.

Chapter 1 – Introduction

Seqwater is the sole supplier of bulk drinking water in South East Queensland (SEQ).

Seqwater is a Grid Service Provider (GSP) that stores and treats water from dams, weirs, bores and other water storages, and also supplies desalinated water from the Gold Coast Desalination Plant (GCDP) and purified water from the Western Corridor Recycled Water Scheme (WCRWS). Seqwater is also responsible for managing:

- the catchments which surround its water sources;
- flood mitigation services;
- recreation facilities and services; and
- irrigation services.

Together with Linkwater, which transports the water through pipelines into the distribution system, Seqwater supplies bulk to the SEQ Water Grid Manager (WGM). The WGM then sells the treated water to the council-owned retail distribution water companies (Unitywater, Allconnex Water and Queensland Urban Utilities), and other industry customers.

Figure 1.1 below illustrates Seqwater's role in the structure of the water industry in SEQ.

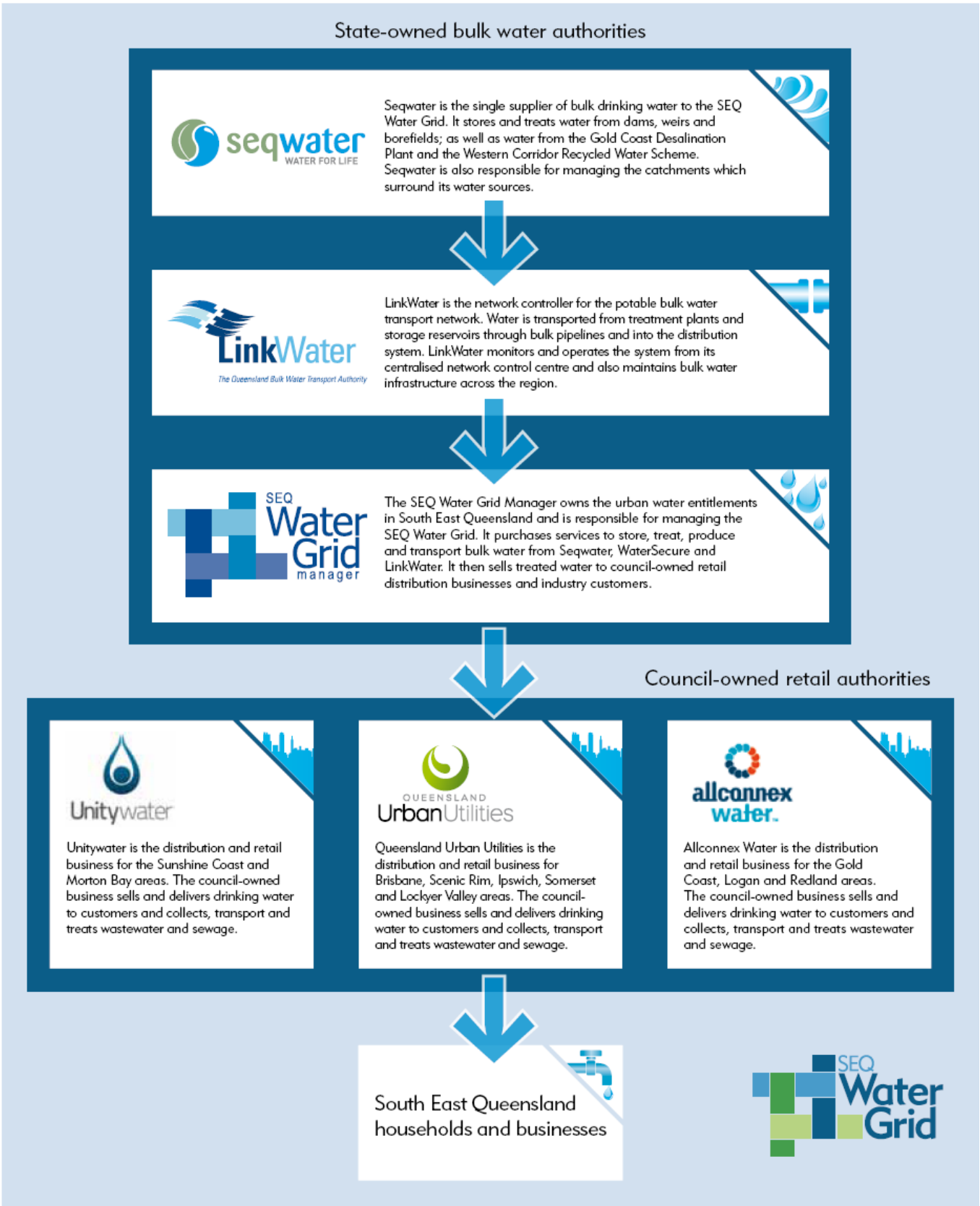
The SEQ Water Market Rules (Market Rules) provide for the Queensland Competition Authority (QCA) (also known as the Economic Regulator) to investigate and recommend Grid Service Charges (GSCs) applicable to GSPs for the period from 1 July 2012 to 1 July 2013.[1]

The GSCs are the amounts that Seqwater can charge the WGM for bulk water services. The Market Rules also specifically provide for the Price Regulator (the Minister for Energy and Water Utilities) to issue a Direction Notice to provide further instructions to the QCA in terms of how it conducts its investigation.[2]

[1] 8.4(a)(ii) SEQ Water Market Rules, 1 July 2011.

[2] 8.3(c) SEQ Water Market Rules, 1 July 2011.

***Figure 1.1* – Structure of SEQ water industry**



1.1 Ministerial Direction

The Minister for Energy and Water Utilities issued a Direction Notice to the QCA, dated 20 October 2011, setting out certain requirements for the QCA's investigation.

The Direction Notice directs the QCA to:

1. investigate and recommend GSCs for Seqwater for 2012-13;
2. conduct a detailed review of Seqwater's fixed and variable operating costs, including undertaking an appropriate benchmark review to provide advice on potential efficiency improvements and business savings based on good industry practice;
3. assess the prudency and efficiency of capital expenditure and operating cost estimates submitted by Seqwater;
4. develop a process, and appropriate Review Thresholds, for reviewing the 2012-13 GSCs; and
5. provide a report to the Minister setting out recommendations for the GSCs for Seqwater for 2012-13 including identifying opportunities for efficiency improvements in capital and operating costs.

1.2 Information Requirements

In order to assess the prudency and efficiency of the capital expenditure and operating cost estimates of Seqwater, the QCA issued the *SEQ Grid Service Charges 2012-13 Information Requirements* (the Information Requirements) on 27 January 2012, which specified a range of financial and business information to be provided to the QCA by 29 February 2012.

This submission has been prepared in response to the Information Requirements as a complement to the templates and other material provided to the QCA.

1.3 Review of operating costs and benchmarking

The Direction Notice also instructs the QCA to conduct a detailed review of Seqwater's fixed and variable operating costs, including undertaking an appropriate benchmark review to provide advice on potential efficiency improvements and business savings based on good industry practice.

The QCA and its consultants have, since early January 2012, been conducting investigations based on Seqwater's estimated actual operating costs for 2011-12 and other data the QCA's consultants have requested from Seqwater.

Seqwater considers that benchmarking at an organisational level is problematic due to the lack of peer organisations that may be considered appropriately comparable.

While there are other regulated bulk water service providers around Australia and internationally, none have a similar asset base, including the same mix of drought and non-drought assets, none operate assets similar to Seqwater's desalination plant and the Western Corridor Recycled Water scheme, and none have a similar history of development.

In the three and half years since Seqwater commenced operations, it has worked hard to coordinate and integrate the assets, systems and processes of over thirteen previous asset owners, successfully managed the introduction of fluoride into drinking water in SEQ, dealt with the consequences of the January 2011 Queensland floods and the following Queensland Floods Commission of Inquiry and, on 1 July 2011, merged with another GSP, WaterSecure.

1.4 Review of irrigation charges

The QCA has also been instructed, via a separate Ministerial Direction Notice gazetted on 6 January 2012, to investigate and review charges in seven irrigation schemes owned and operated by Seqwater. The Direction Notice, issued under the *Queensland Competition Authority Act 1997*, directs the QCA to recommend irrigation charges for the period from 2013-14 to 2016-17. Seqwater is to provide Network Service Plans and accompanying submissions by 30 April, 2012 which is during this current GSC review.

This separate review of irrigation charges will examine many of the same assets and costs that also directly relate to the supply of water to the WGM and, therefore, Seqwater's future GSCs. However, the irrigation review will examine these assets and costs over a different timeframe.

It is therefore important that one process does not occur in isolation to the other, and that the QCA is mindful of the irrigation review at the same time as it considers Seqwater's GSCs for 2012-13.

1.5 This submission

This is Seqwater's second annual submission to the QCA for GSCs, and is also Seqwater's first submission since its merger with WaterSecure. For financial years prior to 2011-12, the Queensland Water Commission (QWC) was the Economic Regulator providing advice to the Price Regulator for these purposes.

Therefore, this submission is essentially the first regulatory submission of the new merged entity. It is also the first time the merged entity has prepared a single budget and forecast of its operating and capital costs.

This submission is structured to first provide an overview of the merged business, then discuss broader regulatory and pricing issues and then move to Seqwater's detailed expenditure proposals. The submission is set out as follows:

- Chapter 2 provides an overview of Seqwater's business;
- Chapter 3 examines the pricing framework and sets out proposed arrangements for tariff structures and cost allocation;
- Chapter 4 examines specific issues in the QCA's Information Requirements;
- Chapter 5 outlines the service and compliance framework governing Seqwater's provision of declared services to the WGM;
- Chapter 6 presents Seqwater's forecast capital expenditure for 2011-12, for inclusion in the closing RAB, and examines asset lives and capitalisation policy, as well as specific capital projects that have changed significantly in scope or cost since their original consideration by the QCA;
- Chapter 7 presents Seqwater's proposed capital expenditure for 2012-13 and examines Seqwater's asset planning systems and the asset lives, completion dates and deliverability of specific capital projects;
- Chapter 8 examines Seqwater's Regulatory Asset Base (RAB) and working capital requirements;
- Chapter 9 discusses the Weighted Average Cost of Capital (WACC) and provides an update on market-sensitive parameters, given most WACC parameters are prescribed in the Direction Notice;

- Chapter 10 presents Seqwater's proposed fixed operating costs and explains variances and new initiatives and business drivers;
- Chapter 11 presents Seqwater's proposed variable operating costs, for each water treatment plant (WTP), the GCDP and WCRWS, and explains variances from 2011-12;
- Chapter 12 sets out the proposed allowable costs for 2012-13;
- Chapter 13 presents Seqwater's proposed claims for unforeseen cost imposts during the 2011-12 year; and

This submission is also complemented by more detailed attachments and supplementary submissions setting out Seqwater's operating expenditure proposals and capital expenditure proposals and also addressing other specific issues.

- Appendix 1 presents a summary of Seqwater's forecast operational expenditure, capital expenditure and RAB for 2012-13;
- Appendix 2 presents Seqwater's Operational Cost Report for 2012-13, including forecast fixed costs, variable costs and allowable costs;
- Appendix 3 presents Seqwater's forecast RAB values;
- Appendix 4 presents Seqwater's proposed forecast working capital requirements for 2012-13;
- Appendix 5 presents Seqwater's forecast allowable costs claims;
- Appendix 6 presents Seqwater's forecast revenue and costs pertaining to its irrigation schemes for 2012-13;
- Appendix 7 presents Seqwater's estimated actual capital expenditure for 2011-12;
- Appendix 8 presents Seqwater's forecast capital expenditure program for 2012-13;
- Appendices 9 to 18 present Seqwater's Operational Cost Reports by Location for 2012-13, for ten of the largest individual dams by total operating cost, including forecast fixed costs, variable costs and allowable costs;
- Appendices 19 to 28 present Seqwater's Operational Cost Reports by Location for 2012-13, for ten of the largest individual WTPs by total operating cost, including forecast fixed costs, variable costs and allowable costs;
- Appendices 29 to 33 present Seqwater's Operational Cost Reports by Location for 2012-13, for the ex-WaterSecure assets, including the GCDP, the WCRWS and the three

Advanced Water Treatment Plants (AWTPs), including forecast fixed costs, variable costs and allowable costs; and

- Appendix 34 presents certain non-financial metrics for Seqwater, requested by the QCA in its Information Requirements.

1.6 Glossary of defined terms

Figure 1.2 is a glossary of terms defined in this document.

***Figure 1.2* – Glossary of defined terms**

AWTP	Advanced Water Treatment Plant
BOOT Scheme	Build-Own-Operate-Transfer Scheme
CSO	Community Service Obligation
EBA	Enterprise Bargaining Agreement
Economic Regulator	Queensland Competition Authority (see also QCA)
GCDP	Gold Coast Desalination Plant
GSC	Grid Service Charge
GSP	Grid Service Provider
Information Requirements	QCA, *SEQ Grid Service Charges 2012-13 Information Requirements*, 2012.
Information Return	Seqwater's provision of information in response to the Information Requirements
IROL	Interim Resource Operations Licence
kW	Kilowatt
kWh	Kilowatt hour
Market Rules	South East Queensland Water Market Rules
ML	Megalitre
Price Regulator	Queensland Minister for Energy and Water Utilities
QCA	Queensland Competition Authority

QTC	Queensland Treasury Corporation
QWC	Queensland Water Commission
RAB	Regulatory Asset Base
ROP	Resource Operations Licence
SEQ	South East Queensland
Seqwater	Queensland Bulk Water Supply Authority
SOP	System Operating Plan
WACC	Weighted Average Cost of Capital
WAE	Water Access Entitlements
WaterSecure	Queensland Manufactured Water Authority, merged with Seqwater on 1 July 2011
WCRWS	Western Corridor Recycled Water Scheme
WGM	Water Grid Manager
WTP	Water Treatment Plant
WWTP	Wastewater (Sewage) Treatment Plant

Chapter 2 – Business Overview

Seqwater gained operational responsibility for its assets on 1 July, 2008 as part of the SEQ water grid reforms. Seqwater owns, manages and operates dams, weirs, water treatment plants, bores and other water assets across SEQ.

2.1 Customers served

The Water Grid Manager

As the bulk water service provider to the SEQ Water Grid, Seqwater's major customer is the WGM. The water that Seqwater catches, stores and treats is ultimately delivered to water consumers in SEQ via the WGM and the three distributor-retailer entities presently operating in SEQ:

- Unitywater supplying the Sunshine Coast and Moreton Bay local government areas;
- Allconnex Water supplying the Gold Coast, Logan and Redlands local government areas;[3] and
- Queensland Urban Utilities supplying the Brisbane, Ipswich, Somerset, Lockyer Valley and Scenic Rim local government areas.

The WGM also directly supplies to some major industrial water users such as power stations, as well as certain irrigators in the Central Brisbane Water Supply Scheme. [4]

Irrigation customers

Seqwater provides water services to approximately 1,455 rural irrigators operating within seven water supply schemes.

The irrigation customers are rural landholders and businesses with water access entitlements (WAE) to use that water for irrigation purposes. These customers use the water to support a wide variety of farming and agriculture activities, such as orchards, vegetable and fodder crops, dairy and grazing.

The amount of water that can be taken by irrigators is subject to water allocations held under respective ROPs and IROLs and the annual announced allocations for each scheme which

[3] From 1 July 2012, Allconnex Water will cease providing retail water services and the Gold Coast, Logan and Redlands City Councils will resume the retail delivery of water in their areas.

[4] The WGM owns the water access entitlements (WAE) from the Central Brisbane Water Supply Scheme, and has contracts with these irrigators for supply of water under the entitlements. Seqwater has no contractual relationship with these specific irrigators.

varies according to water availability in the bulk storages. In times of drought or low flows, irrigation entitlements, being a lower priority than urban and industrial allocations, have restricted rights to take water.

The irrigation customers are licensed to take water from dams and waterways managed by Seqwater within the following seven water supply schemes:

- Logan River Water Supply Scheme
- Central Brisbane River Water Supply Scheme
- Warrill Valley Water Supply Scheme
- Central Lockyer Valley Water Supply Scheme
- Lower Lockyer Valley Water Supply Scheme
- Mary Valley Water Supply Scheme; and
- Cedar Pocket Dam Water Supply Scheme.

Five of these irrigation schemes jointly service rural irrigators as well as the WGM's customers (urban residents and businesses). The three exceptions are Cedar Pocket and the Central and Lower Lockyer Valley schemes, which exclusively supply irrigation customers.

The current pricing arrangements allow for the costs of all seven irrigation schemes to be included in the GSCs paid by the WGM, and for irrigation revenues to be passed back to the WGM to offset the costs.

Hence, for 2012-13, Seqwater's proposed expenditure in all schemes will be included in this GSC review process and the revenue earned from irrigation customers in those schemes will be passed back through to the WGM, reducing GSCs accordingly. [5]

Other customers

Seqwater supplies water to the Gympie Regional Council and other bodies such as local sporting clubs and water boards who directly hold water access entitlements from dams. Revenues from these customers are also used to offset GSCs.

[5] Less the renewals annuity component to pricing. Renewals expenditure in the Lower and Central Lockyer Valley schemes and the Cedar Pocket scheme are not included in Seqwater's capital expenditure for the purposes of determining GSCs. This exception is discussed further in the capital expenditure sections of this submission.

2.2 Regulated assets and services

Seqwater owns and manages a diverse range of regulated water supply assets. Figure 2.1 below presents a summary of these assets.

***Figure 2.1* – Asset overview**

Asset type	Asset type	Number
Water storage	Dams	26
	Weirs	47
	Off-stream storages & lagoons	6
Groundwater	Bores and bore fields	6
Water treatment	Water treatment plants supplying the WGM [1, 2]	44
	Desalination plants	1
	Advanced water treatment plants	3
	Recycled water pipeline network	1
	Other water treatment plants (recreation sites etc)	7

Notes:

1. The total of 44 WTPs servicing the WGM include 5 that are currently not operational and 6 that are operational but will not supply volume in 2012-13.

2. Seqwater also owns and operates many pipelines, pump stations, water reservoirs and river intakes that are associated with and physically connected to water treatment facilities. For most internal purposes, and for the purposes of this submission, costs associated with such minor assets are grouped by allocating them to the major asset (usually a WTP) to which they are connected. For example, the Mount Crosby Eastbank WTP is considered to include reservoirs on Holts Hill and Camerons Hill that are used in the water treatment process, as well as the minor pipelines linking the WTP to these reservoirs, and the costs associated with these minor assets are included in the costs of the WTP itself.

The following sections present a more detailed description of the nature and function of the types of water supply assets owned by Seqwater.

Water storages

Seqwater owns 26 dams, 47 weirs and 6 off-stream storages and lagoons across SEQ, covering 363.5 square kilometres from Little Nerang Dam on the Gold Coast to the south, to Cedar Pocket Dam on the Sunshine Coast to the north, and west to Clarendon Dam.[6] Seqwater also sources some raw water from river intakes around SEQ, such as off the Mary River.

In terms of land, Seqwater owns the land inundated by dams, up to the flood margin, but does not generally own other land in the dam catchment. At some storages (such as Wivenhoe and Somerset) Seqwater owns some limited land holdings beyond the flood margin as a result of acquisitions at the time of construction, but these are small percentages of the entire catchment, which is typically held for commercial activities including farming.

The WGM holds the Water Access Entitlements (WAE) from water supply schemes. These WAE provide the authority for Seqwater to divert water on behalf of the WGM

Water treatment

Seqwater owns and operates a total of 51 WTPs throughout the SEQ region, counting Mt Crosby Eastbank WTP and Mt Crosby Westbank WTP as separate WTPs. This figure does not include the Wyaralong WTP (not yet built) or the GCDP or the AWTPs on the WCRWS.

Of these 51 WTPs, 44 provide services to the WGM, although 5 are not currently operational and a further 6 are operational but will not be required to supply volume in 2012-13. Of the 33 that will provide services to the WGM in 2012-13, 15 are interconnected with the SEQ water grid, while the other 18 are small, standalone plants servicing regional towns that are not connected to the grid.

Seqwater also owns and operates 7 smaller WTPs that do not directly supply volume to the WGM, but are necessary for service provision. For example, some of these plants provide water to staff in remote locations, while others are required to supply water to recreation areas at Seqwater's dams. Hence, while these plants do not provide water to the WGM, they are still required in the broader provision of grid services.

Seqwater also manages a number of water assets constructed in response to the recent drought and transferred to Seqwater when it was merged with WaterSecure on 1 July 2011.

[6] A dam for these purposes means a 'referable' dam for the purposes of section 341 of the *Water Supply (Safety and Reliability) Act 2008*. A referable dam is over 8m in height and meets certain thresholds in terms of storage capacity in mega litres (ML).[6] Weirs are infrastructure, generally smaller than dams in SEQ, which allow water to flow over the crest. Off-stream storages and lagoons are generally bodies of still freshwater that are smaller than referable dams.

These assets supply manufactured water and include the seawater reverse osmosis desalination plant at the Gold Coast (the GCDP), three advanced water treatment plants (AWTPs) located at Bundamba, Luggage Point and Gibson Island, and a 210 km large-diameter underground recycled water pipeline (the Pipeline Network).

Groundwater bores

Seqwater manages six groundwater bore areas. The majority of these groundwater bore fields were constructed in response to the recent drought by local governments or other entities and were transferred to Seqwater upon completion.

These groundwater bore fields service the WGM exclusively.

2.3 Unregulated assets and services

Seqwater also owns a number of unregulated assets which provide services that are not within the scope of this review. For this reason, the following are generally excluded from this submission, except where expressly included:

240 Margaret Street premises

Seqwater owns premises at 240 Margaret St, Brisbane, which it currently occupies along with other tenants.[7]

Hydroelectricity generation plants

Seqwater also owns a small hydroelectric generation plant at Somerset Dam, and a larger hydroelectric generation plant at Wivenhoe. The Wivenhoe Dam plant is operated by Stanwell Corporation under a BOOT (build-own-operate-transfer) arrangement.

Seqwater also owns a small hydroelectric generation plant at Landers Shute WTP, using water from Baroon Pocket Dam released through a turbine before being supplied into the treatment plant. The primary purpose of this hydroelectric plant is to provide power to run the treatment plant itself, reducing the need to source energy externally. Hence, this hydroelectric plant is essentially considered part of the regulated assets servicing the WGM and is excluded from the list of unregulated assets.

Water Access Entitlements

Seqwater holds 3,000ML of medium priority WAE in the Mary Valley Supply Scheme. Seqwater sells water to irrigators and other users, typically on an annual basis.

The revenues from these other assets and irrigation services are very minor compared to Seqwater's revenues from grid service charges.

[7] The market rent from this building is included in the fixed costs for GSCs. This is discussed further in later chapters.

2.4 History and context of business development

2012-13 will be the fifth year of operation for Seqwater. Since 1 July 2008, when Seqwater commenced operational responsibility for the bulk of the ex-council assets transferred to it, Seqwater has successfully managed a number of significant challenges affecting its operations and development.

These have included the initial transfer and consolidation of a disparate workforce, a diverse range of assets, various critical and transitional work needed in the initial stages of operation, the commissioning and operation of a suite of major new drought assets (such as Wyaralong Dam which was transferred on 1 July 2011), the introduction of fluoride into drinking water, the January 2011 Queensland floods, the subsequent Queensland Floods Commission of Inquiry, and the recent merger with WaterSecure.

Seqwater has effectively managed the various challenges since 2008-09 and, in addition to meeting these challenges, is progressing swiftly through the stages of its development as an established, dynamic and forward-looking water business.

Consolidation of asset base and critical works

Most of Seqwater's water assets were acquired between February and July 2008 via the water market reform process and were transferred from a range of previous owners including many local governments. Seqwater did not take operational responsibility for most of these assets until 1 July 2008 and, in cases where the transfers occurred earlier than this date, the previous owners generally continued to operate the assets under Interim Service Level Agreements until 30 June 2008. Even after 1 July 2008, many of the assets continued to be operated under Service Level Agreements for some time.

In the years immediately following the acquisition of these assets, Seqwater's operations focused on work critical to maintaining ongoing supply. Significant focus was placed on merging the staff acquired from the former organisations into one cohesive and dedicated workforce. Other significant work related to the alignment of these assets, to create consistency in terms of compliance and coordination in their operations.

Commissioning of drought assets

The commissioning and operating of a suite of major drought infrastructure projects was another major focus of Seqwater's operations expenditure program in its early years. These major projects included raising the Hinze Dam wall on the Gold Coast, constructing the Ewen Maddock water treatment plant on the Sunshine Coast and commissioning Wyaralong Dam near Beaudesert.

Introduction of fluoride

In response to the introduction of the *Water Fluoridation Act* and *Water Fluoridation Regulation*, enacted in December 2008, Seqwater was required to meet the challenges of introducing water fluoridation services, involving the modification of many water treatment plants and their operations.

Queensland floods and Commission of Inquiry

The severe January 2011 flood events demanded a dedicated focus from Seqwater, including considerable effort to ensure the continuity of sustainable, safe and reliable drinking water.

A number of delays were experienced as a result of the enquiry as Seqwater waited to find out the implications of the findings.

Significant work continues in response to the full implications of the flood events, including the projects and capital works needed for flood repairs, assessment of insurance implications, and implementing the final recommendations of the Queensland Floods Commission of Inquiry (due to be released after this submission).

Merger with WaterSecure

The merger of Seqwater and WaterSecure was announced on 5 December 2010, with the merger taking effect on 1 July 2011. The merger process required significant work, including in relation to developing a merged organisational structure, transferring staff, and integrating assets, systems, policies and procedures in the new merged entity.

This submission addresses the forecast expenditure requirements relating to the assets previously managed by WaterSecure, including the Gold Coast Desalination Plant (GCDP) and the Western Corridor Recycled Water scheme (WCRWS) and its advanced water treatment plants.

Following the recent floods, the SEQ Water Grid is not operating in drought mode, and the desalination plant and parts of the recycled water pipeline are currently operating in standby mode.

Further information relating to the merger is contained in the section below.

2.5 Merger of WaterSecure and Seqwater

The merger of WaterSecure and Seqwater was announced on 5 December 2010,[8] with the merger taking effect from 1 July, 2011. The organisational arrangements under the merged entity were decided in accordance with the following process:

- Develop merged organisational structure – this structure was similar to that which pre-existed at Seqwater, but with the addition of a new Technical Warranty and Development group;
- Transfer staff from WaterSecure into the relevant area of the merged Seqwater (in accordance with the Government's requirements for no forced redundancies);
- Contract staff (essentially level 2 and level 3 managers) were required to apply for their positions where two or more managers existed for a single management position.

The requirements for the merger and the resourcing and cost impacts are set out below in more detail.

Government requirements for the merger

The South East Queensland Water (Restructuring) Act 2007 required that:

- employees transferred from WaterSecure to Seqwater were to receive the same terms and conditions of employment (s 111(2)); and
- there were to be no forced redundancies for transferred staff under the terms of their Enterprise Bargaining Agreement (EBA) for a three year period (effectively s 112).

Seqwater employees were also protected from forced redundancy under the terms of their EBA. However, members of the board and executive of WaterSecure were not under those provisions and did not transfer across to Seqwater.

Resourcing

Operations and maintenance

A variety of approaches now exist for resourcing the operations and maintenance functions.

The operations and maintenance for the GCDP and WCRWS) were outsourced under contractual arrangements that pre-date the merger. The outsourcing comprises:

- WCRWS – Veolia Water under a long-term O&M contract; and

[8] http://www.cabinet.qld.gov.au/MMS/StatementDisplaySingle.aspx?id=72863

- GCDP – to the Gold Coast Desalination Alliance (GCDA), comprised of WaterSecure, John Holland and Veolia Water. This contract formed part of a build-own-operate contract for the plant. Veolia Water provides the operations staff and resources for the GCDP under the alliance arrangements.

For the purpose of this submission, the contracted operator for the GCDP and the WCRWS are referred to simply as Veolia Water.

Under these contracts, Veolia Water is responsible for procuring all inputs and supplies for the plants, including fleet, chemicals, laboratory testing and labour. However, electricity was procured by WaterSecure for the GCDP, which was also responsible for insurances, property costs, and the cost of audits. These arrangements continue post-merger under the terms of the above contracts.

Seqwater's WTPs and water storage assets are operated using an internal workforce. Seqwater inherited the majority of its operational workforce from the previous asset owners. The exception is the Noosa WTP, where operations and maintenance at the Noosa WTP are also outsourced to Veolia Water, under a contract inherited by Seqwater from the previous council owner.

Seqwater outsources some routine maintenance tasks to contractors, and also outsources the delivery of renewals and other projects.

Corporate / overhead

Seqwater has a range of corporate functions required to support service delivery and meet its corporate and regulatory obligations. These functions are generally resourced internally, except where specialist advice is required. In the merger, WaterSecure's corporate resources were integrated into Seqwater.

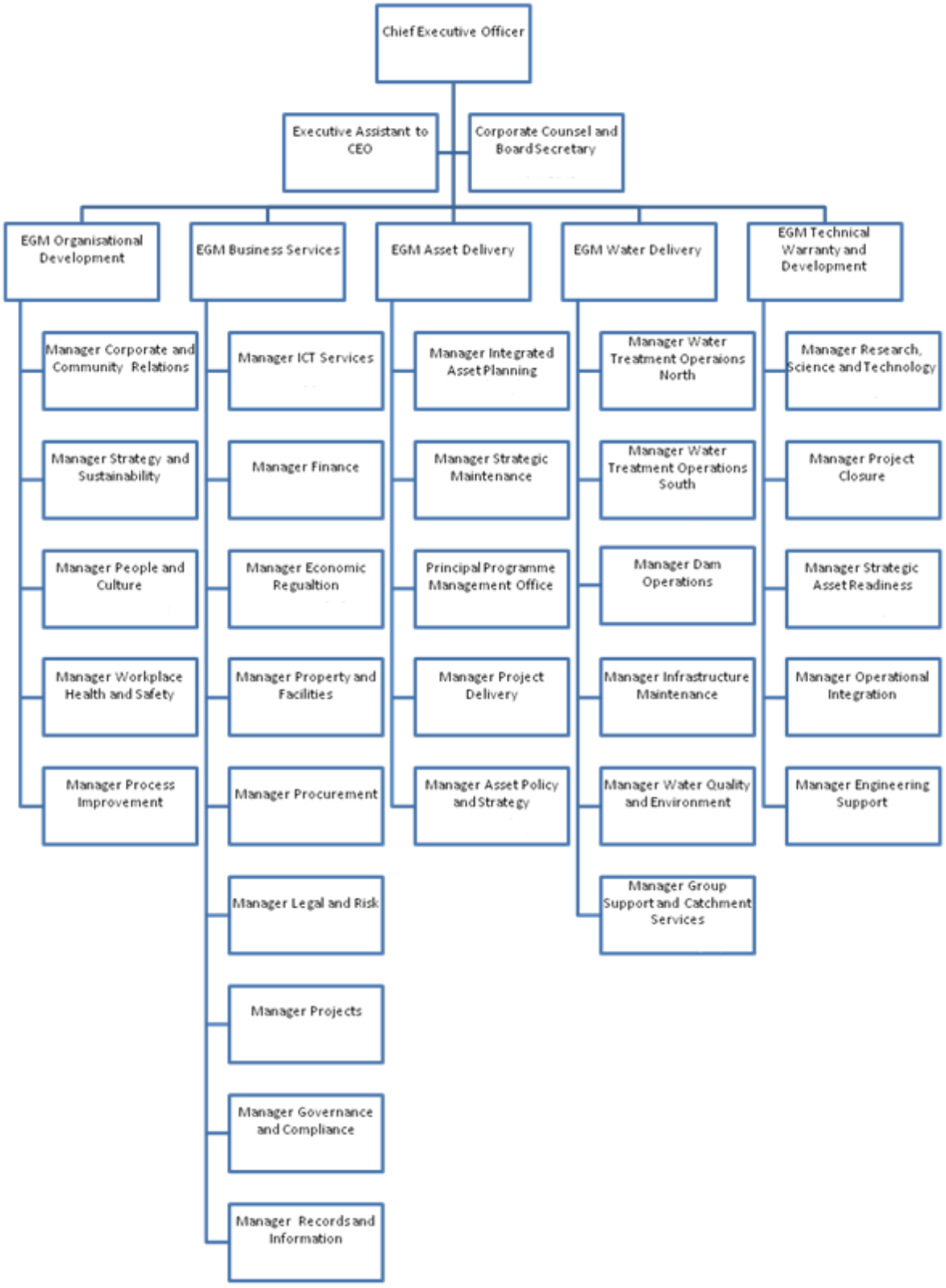
Organisational structure

As indicated above, the merger did not require substantial changes to Seqwater's organisational structure, as the transferred WaterSecure staff were incorporated into the equivalent work groups within Seqwater. A Technical Warranty and Development group was added to this existing Seqwater structure from WaterSecure, to continue with the role of managing the handover, completion and ongoing operation of the WCRWS and GCDP.

Importantly, there were no changes to the direct workforce and contractors engaged to operate and maintain water supply assets. This is because the GCDP and WCRWS are discrete plants located separate to other Seqwater infrastructure. This meant there was only a very minor change to Seqwater's Asset Delivery and Water Delivery groups.

A summary of the merged structure, as at 29 February 2012, is set out in Figure 2.2 below.

Figure 2.2 **- Seqwater organisational structure as at 29 February 2012**



Summaries of each of Seqwater's teams, as at 29 February 2012, are set out in Figure 2.3 below.

Figure 2.3 **- Seqwater team summaries as at 29 February 2012**

Office of the Chief Executive Officer

Support the Board and Executive Management. Oversight and facilitation of Board functions. Undertake formalities required under legislation, Grid Contracts and otherwise in accordance with Delegations Manual. Manages ASIC reporting for subsidiary entities.

- Board functions and oversight
- Undertake formalities from legislation, Grid Contracts, Delegations Manual and other instruments
- Corporate counsel
- ASIC reporting

Organisational Development Group

Corporate and Community Relations

To provide internal and external communication services to ensure Seqwater staff as well as the community are informed of the organisation's goals, initiatives and activities. This function includes liaison with owners and other external stakeholders including the media. The Community Education program is also part of this function. (This team has been created after the merger and was previously two separate teams called Corporate Relations and Community Relations).

- Internal and external communications and stakeholder engagement
- Public safety campaigns relating to dam and weir use
- Support for Water Grid community team managing Ministerial, media and community information requests
- Water Grid community education functions
- Annual Report
- Flood communications and the Early Warning Network
- Ongoing development and maintenance of website and intranet

Strategy and Sustainability

To ensure Seqwater leaders' annual operational planning complies with Government regulation and supports a clear long-term direction for business sustainability. The function is responsible for undertaking strategic analysis including environmental scanning, development of Strategic Planning and Operational Planning processes, developing and implementing reporting arrangements against the business plans for both internal and external audiences and co-ordinating the implementation of a sustainability charter.

- Strategic Plans and Operational Plans compliance
- Strategy and sustainability

People and Culture

To design and deliver a full suite of services and programs to enhance people availability and capability to deliver the strategic and operational objectives of the business. Includes people availability (resourcing) and capability (knowledge and skill) and covers all people-related functions including Learning and Development, Organisational Development, Human Resources, Industrial Relations, HR Information System and metric reporting.

- HR Services
- Learning and Organisational Development
- Industrial Relations
- HR information and metric reporting

Workplace Health and Safety

To ensure Seqwater has WHS systems and processes that comply with Workplace Health and Safety legislation and other requirements and that these systems facilitate the management of WHS risk within Seqwater's business and operations. In addition to compliance, this function is responsible for the development and implementation of WH&S training; WH&S systems accreditation and WH&S Safety culture via initiatives (e.g. Fit for Work and Health and Wellbeing programs)

- Workplace Health and Safety compliance and risk management
- WH&S training, systems accreditation and safety culture initiatives

Process Improvement

Increase the capability of Seqwater to perform its core processes and functions, facilitating efficiency gains across the business. This function is delivered through leading process improvement (PI) projects, undertaking process capability assessments to baseline process capability and setting targets. The function also manages the controlled document repository, maintains the organisations external certifications and undertakes Quality and Environmental Certification audits.

- Process Improvement projects
- Controlled document repository and external certifications
- Quality and Environmental Certification audits

Business Services Group

ICT Services

The Information, Communications and Technology (ICT) group is accountable for establishing, developing and maintaining the framework and delivery of information technology (IT) services across Seqwater and ensuring that Seqwater's Strategic Goals and ICT objectives are achieved.

- ICT Service Desk
- Server Infrastructure
- Network Infrastructure
- Architecture
- Applications
- Client Services
- Project Management Office

Finance

The Finance Team is responsible for overseeing Seqwater's financial functions and obligations. This includes the management of debt and cash flows as well as Seqwater's financial accounting and reporting obligations.

- Management accounting – budget preparation, regulatory reporting, monthly management reporting and system management;
- Financial reporting – tax, external audit, statutory accounts, policy advice, external reporting and depreciation;
- Transaction management – accounts payable and receivable and cash reconciliation;
- Debt and cash management – cash flow modelling, cash management policy and debt facilities;
- Payroll functions; and
- Irrigation business services.

Economic Regulation

Management of the organisation's economic regulatory obligations. Coordinating Seqwater's submissions to the regulator for the pricing of SEQ Water Grid services. Ongoing advice to other work groups on economic regulatory issues, as well as business improvement processes and the management of regulatory risk. Corporate finance modelling services for internal and external reporting.

- Economic and Regulatory Pricing and Reporting
- Corporate finance modelling

Property and Facilities

Property – Management and administration of the Property portfolio on behalf of Seqwater.

- Facilities – Management and administration of Accommodation Facilities and CBD built assets on behalf of Seqwater and affiliated entities.
- Fleet – Management and administration of mobile plant and fleet assets.
- Property
- (Landlord activities associated with 240 Margaret St – unregulated)
- Fleet
- Facilities

Procurement

To assist Seqwater to achieve best value outcomes for each dollar spent with external parties.

- Strategic Sourcing
- Tendering
- Contract Management
- Purchasing, Logistics
- Inventory Management
- Procurement/Systems Training
- Procurement Systems Management
- Supplier Management

Legal and Risk

The Legal and Risk Team is responsible for overseeing all of Seqwater's legal, insurance and risk functions and obligations.

Legal roles

- Service delivery
- Built Assets –construction related matters
- Natural Assets –including all property and recreational matters
- Environmental –the highly regulated product of water both in its natural and manufactured form. This role works with the water delivery and TWAD team but also works closely with the compliance, risk and insurance teams.
- Claims – to manage potential and actual claims and litigation and deliver commercial and constructive outcomes that suit the risk profile and strategic direction of Seqwater.

Risk roles

- BCPs;
- Fraud risk management;
- Critical infrastructure protection;
- Providing advice on risk activities across the organisation (eg projects, procurement);
- Facilitation of organisational risk monitoring i.e. Strategic, Corporate, Operational; and
- Education and training.

Insurance roles

- Claims management;
- Insurance renewal; and
- Brokerage management

Projects

The Business Services Projects team manages projects that generally impact functions across Seqwater. The majority of projects involve liaison and negotiation with the three Distribution/Retail entities, LinkWater and/or the Water Grid Manager. Projects usually involve infrastructure ownership and associate property issues or commercial matters.

- Business Services Projects
- Current projects include compliance activities relating to the Market Rules such as ensuring compliance with all metering standards

Governance and Compliance

To provide oversight and leadership in Seqwater's corporate governance and compliance programs including establishing the appropriate frameworks & programs, reporting, monitoring and ongoing improvement.

- Ensuring the organisation has systems and processes to enable adherence to the State Water Authorities Governance Framework issued by Qld Treasury and other sound governance practices. To ensure the organisation's compliance program is sound and operating effectively in line with the requirements set out in the Australian Compliance Standard (AS3806). This includes leadership and oversight of the Corporation's Assurance program including Internal Audit, Policy Framework and Board approved delegations.
- Management of compliance framework including compliance in relation to legislation, regulation, contracts and leases.
- Dealing with compliance breaches, systems weaknesses and resulting internal audit scoping

Records and Information

To develop, implement and maintain a Records and Information Management Program to support Seqwater business through: sound and sustainable information and records management systems and practices which assist in the capture and maintenance of corporate memory; provision of specialist advice; improvement in the availability and accessibility of information across the organisation, promotion of a Seqwater culture of quality recordkeeping; and ensuring compliance.

- Records & Information Management

Asset Delivery Group

Integrated Asset Planning

Responsible for the portfolio level master planning for Seqwater's catchment based assets. This includes regional, sub-regional and individual asset planning up to a 30 year horizon. The master planning process verifies needs of the business and identifies options for major changes to the attributes of our assets which may be required over time. It is also then the responsibility of Integrated Asset Planning to validate the actions required under the master plan as and when they fall due. This process involves the completion or validation of Options Studies and preparation of subsequent Business Cases for approval of capital projects

- Asset portfolio master planning, including regional and sub-regional planning, grid supply planning and integrated asset planning and strategy into the 30 Year Plan,
- Individual asset planning; and
- Developing the business cases underpinning capital projects.

Strategic Maintenance

This team does not deliver the maintenance, but optimises the efficiency of the maintenance activities undertaken, by developing the processes used to identify maintenance requirements, and then implementing those processes through systems (for example the Corporate Information System). The group is also responsible for maintenance planning, across the Seqwater's asset portfolio, including for land and recreation assets as well as infrastructure assets, as well as the development of Facilities Asset Management Plans (FAMPs), Natural Asset Management Plans (NAMPs) and Recreation Asset Management Plans (RAMPs), as well as compliance auditing.

- Asset Management Plans for all assets including built and natural assets;
- Scheduled Maintenance Plans;
- Compliance reports; and
- Strategic Maintenance Coordination Forum.

Program Management Office (PMO)

Responsible for supporting the operations of the Asset Delivery Group, by reporting on the program of operational and capital projects, providing project and financial support in the delivery of project outputs to maximize program deliverables, preparing defined budgets for future years' asset management programs and development of financial processes (Purchase Order processes) for project expenditure and ongoing expenditure review. The PMO also provides support functions to the Asset Management program delivery governance functions

- Program Delivery Governance and Reporting
- Program Investment Coordination

Project Delivery

Responsible for managing each stage of the delivery of capital projects, including project planning, project implementation, project support and project conclusion, for the entire asset portfolio including major capital and operational projects, built asset refurbishment and renewals, and natural asset projects

- Provision of strategic project delivery support to the Integrated Asset Planning team during the development phase of capital projects
- Planning for delivery of full program of capital and major operational renewal projects
- Detailed project planning for medium/major capital and operational renewal projects
- Achievement of relevant project approvals for major capital projects that require environmental and planning approvals
- Engagement and management of engineering consultants in the detailed scoping and design of capital and major operational renewal projects.
- Development of project procurement strategies to maximise value for money outcomes while ensuring efficient program delivery
- Procurement and management of contractors to execute capital and major operational renewal projects
- Management of safety and environmental issues in the delivery of projects, in line with relevant standards
- Measurement and reporting of progress

Asset Policy and Strategy

Responsible for development of asset policies and strategies for Seqwater's natural and built asset portfolio (including our broader catchments). This team also plays a key role in liaising with key external stakeholders who regulate or influence the direction for management of Seqwater's asset portfolio. The team also own and manage the asset information and oversee benefits realisation review of asset investment

- Incorporate best practice into outputs through considering existing best practices.
- Lead direction-setting for research, 30 year plan and asset management framework development by scoping and articulating outcomes.
- Development, management and maintenance of asset policies and strategies;
- Asset management information services for all assets;
- Activities associated with the alignment of assets, asset management practices, procedures and data management across the asset portfolio;
- Setting the direction for future asset management and ensuring a sufficient, but prudent level of asset investment, including catchment investment; and
- Stakeholder group development and participation (both internal and external stakeholders, with particular focus on key external stakeholders who influence the direction of asset management).
- Benefits realisation

Water Delivery Group

Water Treatment Operations North

The WTP – North Team is responsible for the operation of Seqwater's Northern Water Treatment plants extending from Noosa in the North, Jimna to Lowood in the West and the Northern suburbs of Brisbane.

The Northern Water Treatment Plant Operations is organized into 3 Sub-Regional areas covering Sunshine Coast, Moreton and Somerset Regions and is serviced by 35 Operators, many of which are trained and competent at operating several facilities to ensure the most efficient use of our operational workforce.

The day to day management of these facilities is supported by 1 Team Leader for the Region and 1 Coordinator per Sub-Region.

- Water Treatment Operations

Water Treatment Operations South

The WTO – South team is responsible for the operation of the Seqwater's southern water treatment plants extending from the western suburbs of Brisbane to Mudgeeraba in the south and to Redland in the east.

The Southern WTPs are organised into 4 sub-regions being Gold Coast, Scenic Rim, Mt Crosby and Redland with 36 Operators, 2 Team Leaders and 4 Sub-Regional Coordinators responsible for managing the day to day operations of the facilities.

- Water Treatment Operations

Dam Operations

Dam Operations aims to deliver best practice management of dams and water sources while being fully compliant and effective in operating, maintaining and monitoring its water source infrastructure. Dam Operations must meet the regulatory requirements under various Acts including those relating to Dam Safety, Flood Management, Resource Operating Plans, and providing sufficient water to meet standards of service. Key outputs are management of dams to ensure safe operation during normal water releases and flood releases, monitoring and ensuring dam safety compliance, maintain releases from dams to meet demand, meeting resource operation plan compliance, delivering water to irrigation customers, and ensuring water related data is recorded and stored.

- Dam Operations and Management;
- Dam Safety Compliance
- Management of Dam Releases
- ROP Compliance
- Irrigation Supply Services
- Water Data Records and Storage
- (Some unregulated activities associated with operations of hydroelectric plants)

Infrastructure Maintenance

The delivery of scheduled, planned and reactive maintenance of Seqwater's assets in a timely, effective and efficient manner that supports water production. To ensure the reliability of Seqwater Electrical, Mechanical, Civil and Control System assets and meet all compliance obligations.

- Maintenance of Assets

Water Quality and Environment

The Water Quality team manages and implements the overarching global water quality for Seqwater, and ensures they are aligned with the expectations of key stakeholders. This team is responsible for lab services, data management, implementation of drinking water management plans and environmental compliance.

- Catchment Water Quality
- Drinking Water Quality
- Environmental Management Unit
- Scientific Laboratory Services and Data Systems

Group Support and Catchment Services

This work team has responsibility for the development and delivery of recreation and catchment maintenance services for all operational assets. The team ensures that asset management plans, processes, systems and practices are implemented in accordance with relevant regulatory requirements. This team also contributes to the effective development, implementation and management of the management and reporting systems within Water Delivery and across the entity, as well as the management of third party access and event approval at our sites

- Grounds maintenance (mowing/slashing)
- Terrestrial weed control
- Aquatic weed control
- Pest management
- Fire management (fire breaks/prescribed burns)
- Fauna management/rescues (fish/koala etc)
- Security control (illegal access)
- Lease inspections
- Dam embankment maintenance
- WTP grounds maintenance
- Compliance including regulatory obligations for declared weeds, WH&S obligations, public and infrastructure safety responsibilities, environmental compliance obligations, Water Quality, prudent land management and conservation outcomes.

Technical Warranty and Development Group

Research, Science and Technology

The Research, Science and Technology Team (RS&T) is responsible for delivering research, science and technology outcomes for improved catchment and water cycle management, from catchment management and sustainability to advanced water treatment technologies. RS&T works with its research partners to achieve critical research outcomes in the five research program areas detailed below. RS&T has established Program Reference Groups (PRGs) to ensure stakeholder engagement and achieve best practice governance across its programs. The PRGs consist of sponsors and key stakeholders from across the business to inform and guide research delivery consistent with the organisation's strategic objectives and key phases of the Asset Management Framework (AMF) including asset policy, strategy, planning and operations. Water quality and quantity issues are addressed as required under the ADWG;

- Compliance with the ADWG including water quality specifications, as required under the Water Grid Contract;
- Compliance with additional water quality parameters as specified in the Water Grid Contract; and
- Compliance with the water quality requirements specified in Seqwater's Drinking Water Quality Management Plans (DWQMPs).
- Delivery of knowledge for effective and efficient delivery of water quality and quantity for catchment-based and manufactured water supply assets to support achievement of Seqwater's strategic goals

Project Closure

The Project Closure team is responsible for managing the close out of all project activities related to the construction, commissioning and defect rectification on the WCRWS and at the GCDP, regardless of who is performing the associated tasks. This includes tasks that are being undertaken by staff and consultants in the Project team as well as tasks that have been handed over or in the process of being handed over to Seqwater staff.

The Project team is responsible for ensuring all project deliverables are appropriately closed out through rigorous handover procedures e.g. Owner verification, acceptance and sign off.

- Program and Administration Support
- Delivery, Handover and Integration
- Post Delivery

Strategic Asset Readiness

The Strategic Asset Readiness team is accountable for ensuring that the drought resilient Manufactured Water assets transferred to Seqwater as part of the merger are maintained and operated so as to ensure a state of readiness to deliver water quantity and quality when required.

- Strategic Asset Readiness relating to manufactured water assets

Operational Integration

Management of the performance of the Scheme Operator (Veolia Water Australia) to ensure efficient day to day operations of the Advanced Water Treatment Plants (AWTPs) located at Bundamba, Luggage Point and Gibson Island, the transfer networks and the Gold Coast Desalination Plant (GCDP).

- Management of contractor (Veolia) performance and day to day operations relating to the AWTPs and GCDP;
- Managing the integration of the Manufactured Water assets operations, contracts and processes into Seqwater;
- Managing, achieving and reporting against a variety of compliance obligations as specified in the Water Grid Contract, SEQ System Operating Plan, the SEQ Water Market Rules and various Operating Protocols.

Engineering Support

Responsible for planning and delivering the engineering solutions associated with the Manufactured Water Assets including the GCDP and WCRWS, undertake the mandate of developing standards and to translate any RS&T outcomes to operational benefit.

- Engineering Support relating to manufactured water assets

Chapter 3 – Pricing Framework

This section provides an overview of the tariff structure, as required under the Market Rules, and examines particular issues for its application to 2012-13 GSCs. Issues relating to cost allocation are also discussed.

In short, Seqwater proposes that:

- the main components to the GSCs, namely the Capital Charge, Fixed Operating Charge and Variable Charges, continue to be applied in the same manner as for 2011-12, consistent with the Market Rules;
- Allowable Costs be refined, in accordance with the Direction Notice, to only include once-off costs that cannot be reasonably foreseen, as well as the QWC Levy. The relationship between allowable costs and the review thresholds needs to be made clear so there is certainty about what events qualify under each regime; and
- there should be no change to the approach to cost allocation from 2011-12 GSCs, however a comprehensive review of cost allocation should occur through the QCA's review of irrigation charges, with the outcomes of that review applied for future years commencing with the GSCs for 2013-14.

3.1 Tariff structure

The Market Rules (s 8.8) specify the components that must be included in Grid Service Charges:

- Capital Charges;
- Fixed Operating Charges;
- Variable Operating Charges; and
- Allowable Costs.

This section provides a brief summary of the specific requirements for each component under the Market Rules, and highlights any issues for the review of 2012-13 GSCs.

3.2 Capital charge

The Market Rules (s 8.11) set out specific principles to apply when calculating the capital charge. The Direction Notice requires the QCA to accept that Seqwater is not required to bear volume risk over the regulatory period. Accordingly, the capital charge is applied as a fixed fee, consistent with past practice.

This part of the tariff recovers a return on, and of (via depreciation), the Regulated Asset Base (RAB). Different rates of return apply to Drought Assets, compared to other assets.

The components to the capital charge are discussed in later sections that deal with the RAB, capital expenditure and rate of return. In effect, the capital charge is built up from a commercial rate of return on the non-drought asset base, and the cost-of-debt rate of return applicable to each drought project, in addition to a depreciation allowance on both. Hence this charge applies as a single amount which is not disaggregated by asset or service type or asset.

Seqwater supports the continuation of this approach for 2012-13. Any change in approach will require significant work and involve arbitrary judgements about assigning values to different assets, for little or no apparent benefit given the overall RAB is to remain, in aggregate terms, as per the amount advised by the Price Regulator. That is, there is no useful price information to the WGM from disaggregating the RAB or setting prices at a more granular level.[9]

[9] Also note the requirements of the Market Rules, that the Authority must recognise the need to minimise the economic cost of regulatory actions and uncertainty, and ensure that the costs to Grid Participants of regulation to not exceed the benefits to the overall market (s 8.5).

3.3 Fixed operating charge

The Market Rules (s 8.12) state that the Fixed Operating Charge should allow for GSPs to recover prudent and efficient operation and maintenance costs, as well as efficient corporate and related expenses. This charge has been set to recover all operations, maintenance and corporate costs that do not vary with the volume supplied to the WGM. The Direction Notice affirms this approach going forward, given that the GSPs are not to bear volume risk.

The Fixed Operating Charge is set as a single annual sum (paid monthly), and is not disaggregated by asset or service. Seqwater considers that there is no need to change this approach for 2012-13 GSCs, for the same reasons outlined above. However, it should be noted that Seqwater captures some cost information at the asset level, which will facilitate such an approach in the future should it be required.[10]

3.4 Variable operating charges

The Market Rules (s 8.13) require variable operating charges to be set to recover efficient variable operating costs. Accordingly, this charge is applied on a consumption basis ($/ML).

The QCA has recommended[11] that the variable charge be set for each relevant asset. Accordingly, Seqwater has presented its proposed variable operating charge for each relevant site, namely each WTP, the GCDP and each operational plant comprising the WCRWS. Seqwater has also proposed modifications to tariff groups to improve the price information to the WGM. These proposals are set out in Chapter 11.

[10] Cost capture at the asset or facility level (eg for each dam) is also necessary to enable operating costs to be determined for irrigation prices, given irrigators use only a subset of Seqwater's assets.

[11] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 17.

3.5 Allowable Costs

The Market Rules (s 8.14) state that the Price Regulator may permit GSPs to recover other efficient costs as allowable costs, including any levy payable to the QWC. For the 2011-12 GSCs, allowable costs included a range of costs, some of which were of an ongoing nature (such as working capital), and others that were of a one-off nature.

The Direction Notice to the QCA requires that, with the exception of the QWC Levy, allowable costs are one-off costs which cannot be reasonably foreseen.

For this submission, Seqwater has examined the items previously considered as allowable costs, and proposes some changes to the composition of allowable costs to accord with the requirements of the Direction Notice. These changes are summarised in Figure 3.1 below in relation to items that are relevant for the 2012-13 year.

***Figure 3.1* – Changes to allowable costs, impacts on other charges**

Previously included as allowable cost	Proposed Treatment for 2012-13
Working Capital	As a component to the Capital Charge
QCA Levy	Fixed Operating Charge
Merger and integration costs	Fixed Operating Charge
QWC Levy	No change, remains an Allowable Cost
Queensland Floods Commission of Inquiry (the costs of participation in the Inquiry itself, as opposed to the implementation of the Inquiry's final recommendations)	Fixed Operating Charge

Seqwater notes the Information Requirements state that the QCA Levy is an additional allowable cost. Seqwater has interpreted this as relating to 2011-12 only given the above requirements of the Direction Notice

Allowable Costs have in the past been applied on the basis of actual costs incurred. Seqwater submits that this continues for 2012-13, as it is consistent with the underlying principles set out in the Direction Notice that the costs could not be reasonably foreseen and hence it is unreasonable to expect GSCs to take cost risk for such items. The same approach should be taken for the QWC Levy, where the actual cost is passed through once it is determined for the year. Indeed, for 2011-12 the actual QWC Levy was less than the forecast, with the reduction passed through to the WGM.

The composition of allowable costs is discussed further in Chapter 12.

3.6 Cost allocation

The Market Rules (ss 8.11, 8.12 and 8.13) requires that Grid Service Charges are based on an appropriate apportionment of the capital charge, Fixed Operating Charge and Variable Operating Charge between Declared Services and other services.

The QCA's Information Requirements also set out certain requirements for cost allocation.[12]

The Direction Notice also requires the QCA to take into account expenses and revenues associated with Seqwater's irrigation schemes, and accept the opening RAB values and asset lives as provided by the Price Regulator.

In relation to the capital charge, Seqwater understand that this opening RAB advised by the Price Regulator is to be used to set Grid Service Charge (and is not to be apportioned to other services). Seqwater also notes the QCA has previously accepted that the RAB is not to be allocated with respect to flood mitigation.[13]

The QCA also considered cost allocation to other services such as irrigation, mini-hydro, and incidental services. The QCA concluded that:[14]

- for mini-hydro generators and Wivenhoe and Somerset, the previous approach of excluding all direct costs and revenues continue for the interim regulatory period;
- revenue earned from leasing of water assets such as reservoirs for the placement of third party telecommunications facilities were insignificant, and were not taken into account; and
- irrigation revenues were required to be taken into account under the Direction Notice, and accordingly those revenues were offset against Grid Service Charges (less an amount held for the renewals annuity component).

The Authority also recommended that a more comprehensive consideration of non-regulated revenues be undertaken next year.

Seqwater submits that it is premature to do such a review for the 2012-13 GSCs, and instead the same approach for 2011-12 should continue.

This is important given the QCA has recently been directed to recommend irrigation prices from 2013-14 to 2016-17, and the QCA's review will need to consider in detail how corporate and other costs are allocated to water supply schemes that service irrigators, and also how the costs of those schemes are shared between irrigators and the WGM (as medium and high priority water entitlement holders).

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12 QCA, *SEQ Grid Service Charges 2012-13 Information Requirements*, (2012), p 6.

13 QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 24.

14 QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), pp 20-21.

Seqwater submits that the QCA undertake a single, thorough and detailed review of cost allocation, so that a consistent approach applies across irrigation charges and GSCs. This will ensure there are no inadvertent windfalls or losses through misalignment of the two pricing regimes. Moreover, this review should occur through the forthcoming review of irrigation charges given:

- cost allocation to other services is a relatively minor issue for GSCs, compared to irrigation prices. For example, irrigation revenues comprise around 0.5% of total GSCs;
- irrigation prices may be materially affected by the allocation of corporate and overhead costs. For example, in the recent SunWater irrigation price review non-direct operating costs accounted for around 35% of total operating costs.[15] The irrigation review provides a far better mechanism for irrigators to make submissions and participate in the consultation process for irrigation charges, rather than cost allocation being pre-determined under the 2012-13 GSC review;[16]
- the existing interim arrangements, where irrigation revenues are passed through to the WGM as well as the costs, have proven to be administratively simple and appropriate to the circumstances; and
- the approach is consistent with 2012-13 Direction Notice as it requires the QCA to take into account both irrigation costs and revenues.

In conclusion, Seqwater submits that:

- the QCA defer a detailed assessment of cost allocation until 2013-14 GSCs, and that this assessment is consistent with (if not determined through) the QCA's recommendations for irrigation prices from 2013-14 to 2016-17;
- the interim arrangements for irrigation revenues and expenses be continued in 2012-13; and
- the approach adopted for 2011-12 for mini-hydro and other revenues is also continued in 2012-13, with long-term arrangements reviewed and implemented from 2013-14 (consistent with the approach for cost allocation developed for irrigation prices).

Seqwater's forecast of irrigation revenues, exclusive of renewals annuity income, is set out in the section on revenue offsets in Chapter 10.

[15] QCA (2011a), *Draft Report SunWater Irrigation Price Review 2012-17*, Volume 1, p 162.

[16] Given the final report for the 2012-13 GSCs will be issued before the QCA's draft report for irrigation pricing is released.

Chapter 4 – Information Requirements

This Chapter examines specific issues from the QCA's Information Requirements.

4.1 QCA principles for information provision

In section 4 of the Information Requirements, the QCA sets out certain principles for Seqwater in providing its Information Return. Many of these principles are addressed in the relevant sections of this submission. However, for completeness, the following section summarises how Seqwater has responded to the principles prescribed.

4.2 Consistency with statutory accounts and budgets

Any costs presented to the QCA for 2011-12 are estimates only, based on the most recent forecast of year to date expenditure. Given Seqwater's financial reporting period is July to June, no statutory accounts will exist at the time of lodging this information return in respect of the 2011-12 year.

The expenditure proposals for the 2012-13 year align with the budget approved by the Seqwater Board on 22 February 2012, and exclude non-grid expenditure, being expenditure that is unrelated to this review of grid service charges. Direct costs relating to unregulated activities have been excluded.

4.3 Allocation principles

Seqwater's accounting system comprehensively captures direct operating costs for each responsibility centre, and, for the production-related ones, costs these and production overhead costs to the relevant production function.

Seqwater's accounting policies and practices do not involve allocating indirect costs to assets or activities. However, Seqwater is developing cost allocation proposals for the forthcoming review of irrigation prices for 2013-14 to 2016-17.

As discussed in Chapter 3, for 2012-13 Seqwater has adopted the same approach as for past GSCs, in dealing with cost allocation to irrigation and other services.

4.4 Statement of accounting principles and policies

Seqwater has a range of internal policies developed for guidance in relation to financial, resource usage, resource acquisition and reporting matters, including the preparation of the 2012-13 budget and subsequently this submission. They include:

- Delegations Policy and Procedures;
- Budget Process including attestation process from executive managers;
- Mobile Plant and Fleet Policy;
- Financial Reporting Policy;
- Internal Control and Systems Appraisal Policy;
- Inventory Policy;
- Non-current Assets Policy; and
- Procurement Policy.

Seqwater's policies and procedures are retained in Seqwater's internal document control system, QPulse. These policies include or are supported by additional procedures either in practice or under development. Copies of each policy are available to the Authority on request.

Additionally, Seqwater lists its significant accounting policies in the "Notes to and forming part of the Financial Statement", set out in each Annual Report. This is a statutory requirement, revealing the parameters and conformity of reported information. The Annual Report is a public document and is available on the Seqwater website. The elements of accounting policy shown in the Notes include:

- Asset acquisition;
- Financial instruments – non-derivative;
- Receivables;
- Inventories;
- Property, plant and equipment (recognition, measurement and depreciation);
- Intangible assets;
- Leased assets;
- Impairment (financial and non-financial assets);

- Assets under construction;
- Payables;
- Employee benefits (wages, salaries etc.);
- Revenue (grants and subsidies, water charges, services and finance income);
- Finance/borrowing costs;
- Income tax and GST;
- Accounting standards interpretations not yet adopted; and
- Determination of fair values (assets and liabilities).

No accounting policies have been changed or added since the QCA's investigation and review of 2011-12 GSCs.

4.5 Review and adjustments

Seqwater acknowledges that the Authority or person appointed by the Authority may review the compliance of the information returns submitted.

4.6 Responsibility statement

In accordance with the QCA's Information Requirements, Seqwater has provided to the QCA a signed Board Member's Responsibility Statement and an extract from the minutes of its Directors' meeting at which the Information Return was endorsed.

4.7 Related party transactions

In accordance with the QCA's Information Requirements, Seqwater has provided to the QCA a list of related party transactions.

Seqwater has interpreted the Information Requirements consistent with the previous approach agreed with the QCA, such that other Queensland State Government owned businesses and entities are not considered to be related parties, given institutional arrangements are in place to ensure those entities behave commercially and in their own interests.

Based on this interpretation, there are no related parties to report for 2012-13.

4.8 Third party transactions

Also in accordance with the QCA's Information Requirements, Seqwater has provided to the QCA a list of significant third party transactions.

Seqwater has set out the relevant third party transactions in the cover letter accompanying this Submission and the Information Return to the QCA.

Chapter 5 – Service & Compliance Framework

Seqwater's service standards, governance and compliance framework are dominated by legislative and regulatory requirements.

Seqwater's service role involves four elements – sourcing, storing, treating and supplying water. Seqwater's service standards are set out in legislative instruments, including the *South East Queensland Water (Restructuring) Act 2007* and instruments made under the *Water Act 2000*, such as the Market Rules, the Flood Mitigation Manual and the Grid Contract with the WGM. For example, the Grid Contract specifies, amongst other things, the various thresholds to be met for certain water quality parameters.

Note that, for the time being, following the merger with WaterSecure on 1 July 2011, Seqwater has two Grid Contracts with the WGM, one of which relates separately to the supply of manufactured water to the Water Grid from ex-WaterSecure assets such as the GCDP and the WCRWS. Seqwater understands that these Grid Contracts are to be merged in the near future. Throughout this document, any references to the Grid Contract are intended to refer to both Grid Contracts that presently exist.

Seqwater's governance arrangements are also guided by additional compliance instruments, such as the *State Water Authorities Governance Framework.*

5.1 Service framework

At Seqwater, our service role as the region's bulk water supplier can best be described in four simple words – **Source**, **Store**, **Treat**, **Supply**.

Seqwater's assets catch the rain falling across more than 1.73 million hectares of catchments, which flow into our dams and other water storages. We work with landholders to improve water quality at the **Source**, yielding efficiencies for Seqwater and benefits for the SEQ community.

We **Store** this water in 26 dams, 6 off-stream storages and 47 weirs across the region, before releasing it for treatment.

We **Treat** this water at 44 water treatment plants, using some of the most advanced technologies available. We also manufacture water from a desalination plant and a recycled water pipeline network with 3 advanced water treatment plants which draw water from six wastewater treatment plants in the region to produce purified recycled water.

We then **Supply** this water for the ultimate benefit of urban and rural water customers throughout SEQ.

Seqwater's service standards are set out in the Market Rules, Approved Operating Protocols and its contracts with its customers. For the purposes of this review of GSCs, the relevant contract is Seqwater's Grid Contract with the WGM. The Grid Contract specifies, amongst other things, the various thresholds to be met for certain water quality parameters.

Because Seqwater's service standards are enshrined in the Market Rules, the Grid Contract and Approved Operating Protocols, all of which are legislative instruments creating compliance obligations, service issues are discussed further below under the topic of compliance.

5.2 Governance

The Queensland Bulk Water Supply Authority (Seqwater) is a Statutory Authority, established under the provisions of the *South East Queensland Water (Restructuring) Act 2007, and its* Government ownership is represented through two responsible Ministers – the Minister for Energy and Water Utilities and the Minister for Finance, Natural Resources and the Arts.

The responsible Ministers approve the Board of Directors, and the Board is formally accountable to its responsible Ministers. While the concept of shareholders does not apply strictly to Seqwater as a Statutory Authority, the general principles of corporate governance do translate across to Seqwater, and Seqwater recognises the importance of good corporate governance, particularly in its role as custodian over significant public infrastructure assets.

Corporate Governance objectives

Seqwater has adopted the following objectives of corporate governance which are based on those set out in the *AS 8000-2003 - Good Governance Principles* (the Australian Governance Standard):

- enhance organisational performance;

- understand and manage risks to minimise the negative aspects and maximise the opportunities;
- strengthen shareholder and/or community confidence in an entity;
- enhance the public reputation of an entity through enhanced transparency and accountability;
- allow Seqwater to demonstrate how they are discharging their legal, shareholder and ethical obligations;
- provide a mechanism for benchmarking accountability; and
- assist in the prevention and detection of fraudulent, dishonest and/or unethical behaviour.

Corporate Governance principles

Seqwater has adopted the following principles of corporate governance which are set out in the *State Water Authorities Governance Framework*. These principles are as follows:

- lay solid foundations for management and oversight;
- structure the Board to add value;
- promote ethical and responsible decision making;
- safeguard integrity in financial reporting;
- make timely and balanced disclosure;
- respect the rights of shareholders;
- recognise and manage risk; and
- remunerate fairly and responsibly.

The governance arrangements applicable to Seqwater is managed by a Governance and Compliance team coordinating Seqwater's overall Corporate Compliance Program and looking after a number of other corporate governance matters such as advising and supporting the Board Audit Committee, developing and maintaining a corporate policy framework and co-ordinating the Internal Audit Program.

5.3 Compliance

Compliance has a very significant influence on Seqwater's operations. Various legislative and regulatory compliance requirements apply to almost all of Seqwater's functions and activities, and lead to a significant proportion of Seqwater's operating costs. Furthermore, in many areas of compliance, Seqwater faces a notably dynamic operating environment.

The Seqwater Compliance Management System and Compliance Program

Seqwater has a Compliance Policy, in which Seqwater commits to 'conducting its business and activities lawfully and in a manner that will enhance the qualities valued by Seqwater, in particular, sustainability, excellence in business, and qualities of trust, respect and care.'

In implementing that commitment, in March 2010, Seqwater established a Compliance Management System which identified the compliance framework and model for Seqwater, including how other Seqwater management systems relate to the compliance management system.

The Compliance Management System incorporates a Compliance Program as an important part of its framework. The Compliance Program, summarised below in Figure 5.1, is based on the *Australian Standard on Compliance Programs AS 3806 – 2006*.

***Figure 5.1* – Seqwater Compliance Program Overview**

The Seqwater Compliance Program is framed around the four parts of the Standard, and seeks to highlight those principles that are most relevant to Seqwater at its current maturity in implementing compliance systems. This provides a focus for the Program and the particular needs to be addressed in Seqwater.

The Standard also requires objectives and targets for the Program, and these are highlighted to ensure the success of Seqwater in the performance of its statutory functions. The objectives are:

- to give effect to the 12 principles of the *Australian Standard on Compliance Programs AS3806 – 2006*; and
- for staff to internalise compliance with Seqwater obligations in the performance of their work functions.

Within Seqwater, compliance is overseen by the Governance and Compliance team (established in July 2011) coordinating Seqwater's overall Compliance Program.

The Compliance Policy reproduced in Figure 5.2 on the following page, also notes that compliance is everyone's responsibility within Seqwater and that all staff should seek to comply with relevant obligations in the course of their duties.

Figure 5.2 - Seqwater's Compliance Policy

Compliance Policy

Seqwater is responsible for managing catchment sourced bulk water storage and treatment facilities for the supply of water for urban and rural use in South East Queensland.

Seqwater is committed to conducting its business and activities lawfully and in a manner that will enhance the qualities valued by Seqwater, in particular, sustainability, excellence in business, and qualities of trust, respect and care.

In accordance with the Seqwater Code of Conduct, all staff members are expected to adhere to high ethical standards and to strictly comply with all relevant laws, regulations, codes, contracts, standards, policies and procedures, principles of good governance, obligations arising at common law, and accepted community and ethical standards.

To demonstrate its commitment to compliance, Seqwater develops and maintains a Compliance Management System consistent with the Australian/New Zealand Standard AS/NZS 3806:2006.

The Seqwater Compliance Management System:

- Aims to prevent, and where necessary, identify and respond to, non-compliance with laws, regulations, codes, contracts, standards, and Seqwater policies and procedures;
- Provides support, guidance and tools to ensure Seqwater's compliance obligations are consistently met.

Compliance responsibilities:

Compliance is everyone's responsibility. All Seqwater staff should seek to comply with relevant obligations in the course of their duties. Staff members who knowingly and recklessly breach compliance obligations may be subject to applicable legislative penalties and / or Seqwater disciplinary procedures.

Peter Borrows
Chief Executive Officer
10 Feb 2010
Date

Phil Hennessy
Chairman
10 Feb 2010
Date

Seqwater Compliance Obligations Framework and Registers

Seqwater has developed and maintains a Compliance Obligations Framework, which is further assessed across two Compliance Obligations Registers.

The first Compliance Obligations Register encompasses compliance obligations relating to water functions, such as supply and treatment and catchments (source control and storage).

The second Compliance Register encompasses compliance obligations relating to people and integrity functions, such as workplace health and safety, industrial relations and financial reporting.

In both Registers, there are compliance obligations that relate expressly and specifically to Seqwater, and more general compliance obligations that relate to a wider number of organisations and entities, including Seqwater by virtue of its functions, activities and its governance arrangements.

These Registers were compiled by Seqwater, with the assistance and advice of external legal advisors, by identifying the most significant areas of compliance having regard to the associated risks and penalties. There are many other areas of general compliance that apply to Seqwater but which are considered low risk by comparison and have not been included in these Registers.

The Compliance Registers, which have been provided separately to the QCA, are important for giving context around the extent to which legislative and regulatory compliance obligations influence Seqwater's operations.

The Compliance Registers demonstrate how Seqwater is legally obliged to maintain compliance with a range of legislative requirements, including Acts, Regulations, the Market Rules and other legislative instruments such as the Grid Contract and the formal Ministerial Direction Notices made under Acts. Notably, a significant number of Seqwater's compliance obligations arise from regulations and subordinate instruments made under legislation. Figure 5.3 below illustrates a number of sources of compliance obligations that relate specifically to Seqwater and some other water service providers.

***Figure 5.3* – Sources of compliance obligations**

Additionally, and equally importantly, there is also a range of other legislative and regulatory obligations that relate more generally to the operations of most businesses and entities operating in Queensland, and which also apply to Seqwater by virtue of its functions and governance arrangements. Examples include Workplace Health & Safety, laws relating to the protection of the environment and cultural heritage, laws relating to land ownership and

building ownership, as well as various requirements imposed by Departments such as DERM and other directions issued by policy makers.

Most businesses, particularly those involved in the provision of essential services such as Seqwater, undertake significant expenditure and investments to manage their compliance with legislative obligations. It is therefore important to consider Seqwater's compliance obligations when assessing the prudency and efficiency of aspects of Seqwater's budget.

Managing compliance often involves adopting a solution that satisfies the relevant compliance requirement, at least cost over the life of the asset, although in practice achieving compliance can be more complex. Compliance is not always a case of being able to invest in a solution or undertake a project that fully guarantees future compliance. Sometimes, compliance involves maintaining ongoing practices, and balancing ongoing risks of non-compliance against the costs of projects and operations that minimise the chances of non-compliance. In these cases Seqwater must be guided by the advice of enforcement agencies, the investments and solutions adopted by comparable businesses, and other specialist advice, in determining what constitutes best practice and what will reasonably minimise the prospects of non-compliance.

There are approximately 20 major areas of compliance that are core to Seqwater's activities relating to the supply of declared water services to the WGM, including:

- water supply planning – under the *Water Act* and the System Operating Plan, plus regional and sustainable planning under the *Sustainable Planning Act* and the Regional Water Security Program;
- Grid Contract water supply requirements – including obligations relating to insurances, reporting, raw water supply, manufactured water supply, water quality and catchment management, as well as invoicing obligations;
- Market Rules water supply requirements – including relating to grid participation arrangements, bulk water supply obligations, manufactured water supply obligations, metering and bulk supply points, Grid Instructions, Operating Instructions and Operating Protocols issued under the *Water Act*, as well as Water Grid Emergency Response Plans and Water Grid Risk Management Plans;
- water ownership, access and use – under Resource Operations Plans, Resource Operations Licences (including interim) and the Water Resource Plans made under the *Water Act*;
- water information reporting obligations – including reporting to the Bureau of Meteorology under the *Commonwealth Water Act 2007* and *Water Regulation 2008*;
- water asset management planning – under the *Water Supply (Safety & Reliability) Act*, including relating to Strategic Asset Management Plans and System Leakage

Management Plans, as well as obligations under the approved Customer Service Standards;

- dam safety and reliability and flood event mitigation and management – under the *Water Supply (Safety & Reliability) Act*;
- environmental protection, conservation and recycling obligations and strategies – under numerous state and commonwealth Acts, Regulations and Policies;
- water quality requirements – under the *Water Supply (Safety & Reliability) Act*, the *Public Health Act* and *Public Health Regulation* and the Australian Drinking Water Guidelines, including obligations relating to Drinking Water Quality Management Plans, Recycled Water Management Plans, water quality testing and monitoring, and requirements specified in the Grid Contract and the approved Customer Service Standards and under common law;
- water fluoridation – under the Water Fluoridation Act and Water Fluoridation Regulation;
- pricing and economic regulatory requirements – under the *Water Act* and Market Rules;
- governance and integrity – under the *South East Queensland Water (Restructuring) Act* and the State Water Authorities Governance Framework as well as other general obligations under integrity-related legislation such as the *Public Interest Disclosure Act*, *Public Sector Ethics Act*, the *Integrity Act*, *Public Service Act*, the *Privacy Act*, the *Public Records Act*, freedom of information laws and anti-discrimination legislation;
- financial and corporate accountability – including annual reports, Seqwater's Strategic and Operational Plans, CSOs and requirements under the *Financial Accountability Act,* Queensland State Procurement Policy;
- workplace health and safety – under the Workplace Health & Safety Act, the Building Fire Safety Regulations, Electrical Safety Act and the new Work Health & Safety Act;
- workplace relations – under the *Industrial Relations Act* and related regulations as well as Awards and Certified Agreements;
- Water Grid communications responsibilities – under a written Ministerial Direction;
- recreation responsibilities – relating to public safety legislation and recreational water quality under the National Health & Medical Research Council (NHMRC) Guidelines for Managing Risk in Recreation Water, as well as duties of care under common law pertaining to recreational water quality and public safety including workplace health and safety;
- catchment management responsibilities – relating to Declared Catchment Areas under the *Sustainable Planning Act* as well as duties of care under common law pertaining to

drinking water quality, public health and onsite public safety, plus specific legislative obligations pertaining to catchment conservation, pest management and stock route management;

- land ownership and building ownership requirements – including under the Property Law Act, the Building Act, the Land Act, Dividing Fences Act, Retail Shop Leases Act, and the Residential Tenancies & Rooming Accommodation Act; and
- development requirements and obligations relating to heritage and indigenous protection – under the State Development & Public Works Organisation Act, Queensland Heritage Act, Vegetation Management Act, Native Title Act, and the Aboriginal Cultural Heritage Act.

There are also compliance requirements relating to the non-grid activities, irrigation supply services, and other general areas of compliance that are not included in the above list.

It should also be noted that Seqwater also holds contracts with its irrigation customers and other customers in relation to unregulated services, as well as various legacy contracts such as those with community organisations and other recreation site users.

5.4 New and noteworthy compliance obligations

Seqwater is operating in a notably dynamic compliance environment. There are a number of new and amended compliance obligations leading to increased budgeted costs in 2012-13. Some of the new and noteworthy compliance obligations are outlined below.

Workplace Health & Safety laws

The *Work Health Safety Act 2011* involves a new Act and Regulations, which are driving some proposed increases in costs for the Workplace Health & Safety team in 2012-13.

The additional workload resulting from the new obligations includes a need for increased consultation and communication with contractors and changed requirements for managing dangerous goods and hazardous substances. To facilitate compliance with these increased requirements, Seqwater has a contractor management program for 2012-13 and is working on updating the hazardous substances and dangerous goods requirements for the relevant sites.

Environmental management and compliance

The Environmental Management Unit (EMU) within Seqwater's Water Quality and Environment Team is responsible for the management of Seqwater's environmental compliance across all areas of the business including Treat, Source, Store and Supply stages of its service.

Budgeting for operational expenses is carried out by scheme:

1. Western Corridor Recycled Water;
2. Desalination; and
3. Catchment (water treatment plants, dams and land).

The role of EMU has changed considerably following the merger with WaterSecure. It has moved from predominantly managing environmental administration activities for the corporate office, to now being responsible for general operational environmental compliance and management across the new suite of assets. These assets include, notably, chemical storage facilities and the the wastewater (sewerage) treatment plants (WWTPs) at recreation sites.

Recently the EMU has investigated areas of environmental compliance within the areas of broader catchment management including new koala management requirements, fire management, cultural heritage management and land offset.

Due to these changes, comparability with budgeted figures for the 2011-12 financial year is limited, and the latter did not include any costs for catchments. The increase in forecast operating expenses for EMU is driven by an increase in the regulatory requirements (compliance) and the addition of catchments (which includes some compliance and some risk management).

Environmental compliance risks

Environmental compliance risks are not limited to management of discharges at treatment facilities. Significant compliance risks also exist for legislative requirements in regards to compliance reporting, site management documentation, incident response and reporting and personnel training, experience and capability. Recent reviews (June and July 2011) revealed deficiencies within the broader organisation understanding of all areas of environmental compliance requirements, compliance performance and systems of management for compliance. The identified "scope for improvement" was particularly associated with compliance with the *Environmental Protection Act 1994* and the *Environmental Protection Regulation 2008*. The water treatment process was the business activity found to contain the highest immediate organisational risks in regards to environmental compliance. Some of the issues in which Seqwater is exposed to high compliance risks include amongst others:

- deficiencies in immediate incident response capability in regards to dealing with critical "Treat" environmental non-conformances;
- unclear and inappropriate actions in regards to "Treat" facility sludge and contaminated land management;
- reactive and incomplete approaches to rectifying high risk non-conformances; and
- deficiencies in permanent, operational incident response capability in regards to dealing with critical "Treat" environmental non-conformances.

Approach and strategy

In order to address these deficiencies, a comprehensive and effective Environmental Management Function within Seqwater is being developed, with the more immediate and short-term issues and risks addressed with the temporary engagement of external consultancy services. It is considered that the systemic issues are best dealt with through the introduction and development of skills and abilities embedded on a longer-term basis within the Seqwater organisation. This requires an expansion of permanent skills, technical

capabilities and servicing capacity, along with a structural re-organisation of the current EMU to enable more efficient management.

The *Environmental Management Compliance and Good Business Practice Strategy's* primary purpose is to create a consistent, integrated and co-ordinated approach to environmental management within Seqwater:

- that addresses immediate environmental compliance issues;
- while building a platform and strategies for delivery of more efficient, effective and defensible environmental management activities and systems across all business areas of the Seqwater organisation.

Key environmental management programs have been identified as being critical to addressing the current issues facing environmental management performance. These projects form the basis of action and deliverables within the Environmental Management Compliance and Good Business Practice Strategy.

1. Develop a comprehensive environmental management permits and licence register;
2. Develop an environmental Site Based Management Plan (SBMP) for each specific "Treat" facility or site;
3. Implement an interim corporate-based environmental incident response, verification and investigation capability;
4. Implement a permanent on-site, incident response, verification and investigation capability;
5. Undertake a compliance risk assessment of all Water Treatment and Sewerage Treatment plants/facilities with the "Treat" business activity;
6. Undertake a contaminated land/sludge management review at each WTP and WWTP facility;
7. Map environmental management capabilities and responsibilities across the entire Seqwater organisation and establish formal roles, responsibility and accountability;
8. Undertake a compliance risk assessment within other business activities – i.e. Source, Store, Supply;
9. Review and if necessary redesign the current Seqwater Environmental Management System (EMS); and
10. Improve efficiency and effectiveness of services provided by the corporate Environmental Management Unit (EMU).

The primary phases of “immediate” programs are funded through the existing budget accounts associated with the Water Quality and Environment Team. Program scoping will be conducted for all secondary phases of immediate programs and all phases of mid-term programs with these associated expenditures included in the 2012-13 financial year. The implementation of corrective actions will be driven by the assessment of asset criticality under the Facilities Asset Management Planning Process.

For 2012-13, it is proposed that EMU will be formed of two distinct service capabilities – Operational Compliance Capability and Specialist Support Capability, as illustrated in Figure 5.4 below. The former will deliver day-to-day management of Seqwater’s compliance obligations, while the latter will provide in-depth knowledge and advice in key management-risk areas, with this information used to support and guide major operational decision-making processes.

Figure 5.4 **– Proposed 2012-13 structure for Environmental Management Unit**

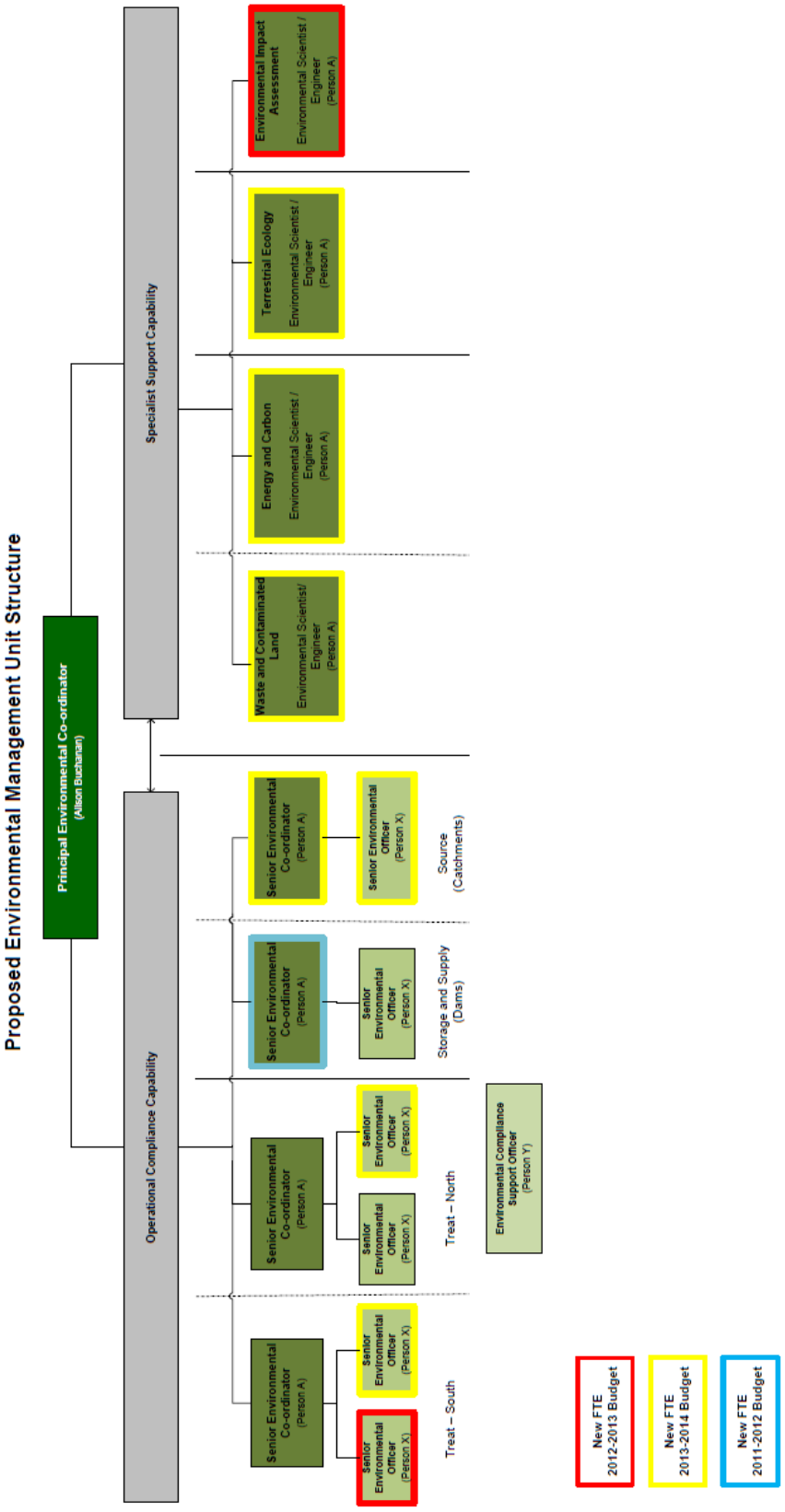


Figure 5.5 below lists the three largest forecast EMU expenditure items by asset type, for 2013-13.

Figure 5.5 **- Environmental Management forecast operating expenditure in 2012-13**

Asset type	Project	Budget 2012-3
Western Corridor (AWTPs)	Containment Release and Waste Reduction	$250,000
	Compliance Environmental Monitoring	$238,000
	Permit Applications and Amendments	$80,000
Desalination	Containment Release and Waste Reduction	$90,000
	Marine Ecology	$50,000
	Compliance Auditing	$20,000
Other		
Water Treatment Plants	Compliance Environmental Monitoring	$110,000
	Management Systems	$100,000
	Compliance Auditing	$80,000
Dams	Compliance Auditing	$80,000
	Permit Applications and Amendments	$40,000
	Terrestrial Ecology	$40,000
Catchment (land)	Permit Applications and Amendments	$40,000
	Terrestrial Ecology	$30,000
	Compliance Environmental Monitoring	$20,000

**Note that the top three expenditure items are relative to the particular sub-group within each scheme, such that there may be larger expenditures in some sub-groups not captured here.*

Capital planning and System Operating Plan changes

The SEQ System Operating Plan (SOP) is an instrument made under section 360V of the *Water Act 2000*. Its purpose is to allow the QWC to facilitate the achievement of the desired levels of service objectives for the region.

On 11 November 2011, the QWC released an updated version of the SOP which changed many components of the prior version. Two of those changes significantly impacted upon Seqwater, namely:

- the new requirement for development and maintenance of a Manufactured Water Readiness Plan; and
- new requirements for forecasting and grid infrastructure planning activities, to inform the QWC in the performance of its function to assess and recommend options to achieve water security. These provisions apply to all grid participants and, from mid-2012, will require the GSPs to prepare Annual Water Supply Asset Plans.

Manufactured Water Readiness Plans

Section 11 of the SOP now obligates Seqwater to comply with the new Schedule 4 to the SOP, which sets out the mandatory requirements for the Manufactured Water Readiness Plan (Readiness Plan). In summary, those mandatory requirements are to:

- firstly, provide an interim report to the QWC demonstrating the processes and procedures in place to meet the Readiness Plan requirements;
- secondly, prepare an interim Readiness Plan, involving submitting a draft to the QWC, then engaging in a consulting process with the QWC, WGM and other relevant parties, and finally by submitting to the QWC the interim Readiness Plan with a statement as to how it has been developed to meet the SOP requirements (due 30 September 2012);
- thereafter, annually from 2013, review the Readiness Plan and notify material revisions to the QWC (and copy the WGM); and
- report (KPI results, risk management activity outcomes and significant events/risks), from 2013, on the Readiness Plan to the QWC by 30 September each year.

The Readiness Plan obligations also require Seqwater to publish certain factual data and other technical information about manufactured water, from both the desalination plant and the WCRWS, and report annually on publication activities.

Grid infrastructure planning changes

The new forecasting and planning requirements in the SOP are split into two parts:

1. Interim provisions for the 2012-2013 financial year

The interim provisions require first the distributor-retailers to identify matters likely to have a material impact on the need for new/upgraded bulk supply works in 2012-2013, and to submit those matters to Seqwater, Linkwater, the QWC and the WGM. The WGM is then to consider the distributor-retailer's submission, identify such matters of their own, then submit those issues to the other parties.

Seqwater and LinkWater are then required to prepare statements addressing the matters raised in the WGM's statement and provide this response to the QWC, the WGM, the distributor-retailers and the other GSP (due by 1 March 2012).

2. Long term demand forecasting and water supply asset plans

The Market Rules do not currently contain any mechanism for the WGM to make the received demand information available to Seqwater or LinkWater to inform infrastructure planning decisions over the long term.

The forecasting of demand has, to date, therefore only been undertaken with an essentially short term view under the Market Rules, whereby grid customers provide the WGM with annual updates of their three-year demand estimates, with monthly updates by the GSPs on capacity/supply restraints and by customers on demand zone requirements/constraints. This information has then been used by the WGM in formulating its Annual Operating Strategy required under the SOP (now called an Annual Operations Plan) and in its monthly Grid Instructions.

The recent changes to the SOP introduce requirements for longer term (20 year) demand forecasts, commencing in 2012. The timeline for these 20 year demand forecasts are as follows:

- by 28 February each year, distributor-retailers must provide an annual demand forecast for the next 20 year period (commencing on 1 July) to the WGM and the QWC. These 20 year demand forecasts are to include volumetric requirements for individual demand zones or supply points, forecast assumptions and additional specifications such as reliability, pressure or quality (and must align with Water Netserv Plans). The 20 year forecasts also require prior consultation with the GSPs.
- by 28 May each year, the WGM is required to consolidate these annual forecasts for the following 20 year period into a Consolidated SEQ Water Demand Forecast, which is to be provided to Seqwater, LinkWater and the QWC.

- by 19 September each year, Seqwater and LinkWater are then required to prepare Water Supply Asset Plans and submit them to the QWC, including plans, programs of work and associated budgets, processes and procedures in place to ensure the Consolidated SEQ Water Demand Forecast can be met. These plans must describe:
    - current asset capability to deliver services under a range of operating conditions;
    - how existing assets will be maintained/renewed;
    - how decisions will be made to retire assets and deliver new assets;
    - linkages with the plan of the other GSP (i.e. Seqwater's plan must identify linkages to LinkWater's plan, and vice versa); and
    - adequate consultation, including "to ensure all reasonable options have been appropriately investigated and considered prior to identification of specific capital solutions to meet the Consolidated SEQ Water Demand Forecast".
- by 31 October each year, the QWC must then assess and endorse the Water Supply Asset Plans as having been prepared in accordance with the SOP and as enabling the QWC to perform its planning functions for achieving water security. Once endorsed, the Water Supply Asset Plans are provided to the WGM and the distributor-retailers.

Feedwater arrangements changes

The SOP also deals with feedwater arrangements for the WCRWS. In summary, those arrangements are –

- Seqwater must, within 1 day of receiving a Grid Instruction from the WGM requiring water to be supplied from the WCRWS, issue a feedwater notification to relevant distributor-retailers. The SOP specifies the content requirements for the feedwater notification;
- distributor-retailers must make feedwater available to Seqwater in accordance with issued feedwater notifications;
- if unable to meet the feedwater notification, a distributor-retailer is required to notify Seqwater and the Grid Manager. The Grid Manager then has an obligation to notify the QWC;
- feedwater provided by the distributor-retailers to meet feedwater notifications must meet the requirements of approved Recycled Water Management Plans; and
- distributor-retailers have quarterly reporting obligations to QWC regarding feedwater volumes.

Importantly, the feedwater notifications must be consistent with not only Grid Instructions but also any agreement that exists between Seqwater and the distributor-retailer for the use/supply of feedwater. QWC approval is required for making or amending these feedwater agreements (the WGM was the approver under previous versions of the SOP).

The SOP also specifically restricts the ability of distributor-retailers to enter into new arrangements or change existing arrangements with other parties to supply feedwater. This restriction is aimed at ensuring sufficient feedwater volumes will be available to Seqwater (and are not otherwise contracted for supply to third parties). However, the restriction does not affect the continuation of agreements that Councils had in place with third parties, as at 30 June 2008, for the supply of feedwater, provided those continuing contracts are not altered.

New general SOP principles

Lastly, the new SOP also introduces a set of principles to be taken into account by all entities in performing their SOP obligations. The principles are as follows:

- water quality should be managed from source to end users in a way that ensures the heath of catchments, aquifers and their ecosystems and delivers water of a quality desired by end users at the lowest overall cost;
- water supply operations should maximise efficient and cost effective service delivery and efficient use of water (eg connectivity between supply sources);
- assessments of regional water supply should consider environmental, social and economic factors and include the application of least cost planning to ensure proper economic comparison of all supply side and demand side options;
- flood mitigation and dam safety should be considered in the preparation of assessments of regional water security.

Ministerial instruction regarding WGM role in capital projects

The above requirements of the new SOP are to be met by Seqwater in addition to meeting a Ministerial instruction in relation to the WGM's role in capital projects. On 20 October 2010, the Minister for Energy and Water Utilities made a formal request to establish a new capital expenditure advisory role for the WGM, namely to advise responsible Ministers that:

- there is a clear and appropriate need for proposed expenditure (from 2011-12 onwards); and
- a full range of options has been considered, including alternative ways of operating the Water Grid and utilising existing infrastructure.

The advisory role covers proposed expenditure of $2m or more on infrastructure and information technology projects that deliver new capacity to the Grid or involve renewals costing $2m or more, excluding drought projects and regionally significant projects. This advisory role is expressly intended to complement the role of the QCA in reviewing whether proposed expenditure is prudent and efficient.

The process requires Seqwater to provide relevant information to the WGM "*as part of annual operational planning processes*". However, the precise timing and requirements of the process is not specified in the SOP or in the context of other economic regulatory requirements.

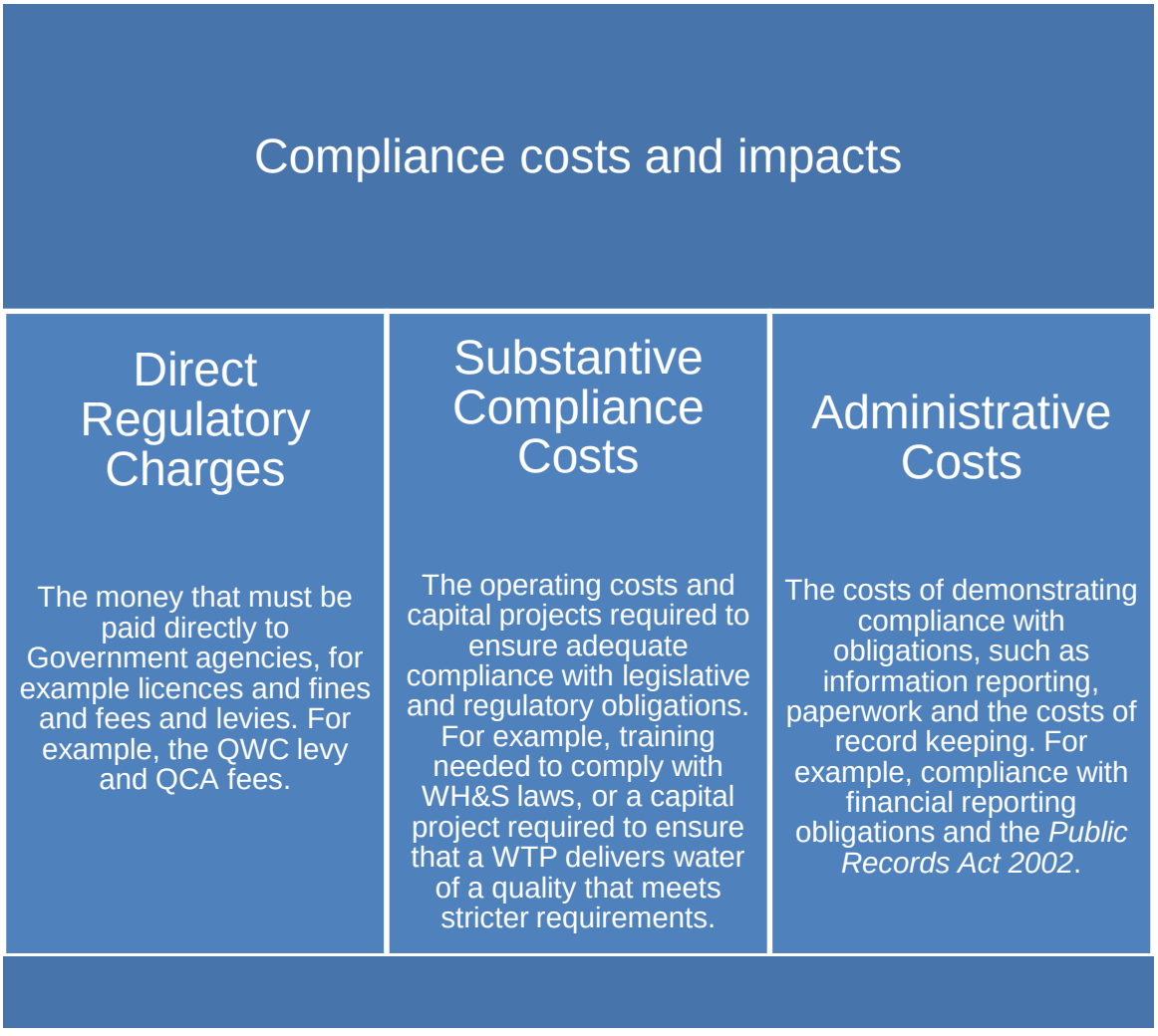
5.5 Quantifying the impact of compliance

In assessing the prudency and efficiency of Seqwater's proposed budget for 2012-13, Seqwater considers that it is important to understand the impacts of compliance on its operations and on its consequential costs.

Costs of compliance

As illustrated in Figure 5.6 below, the costs and impacts of compliance with legislation and regulations include direct regulatory charges, substantive compliance costs and administrative costs.

***Figure 5.6* – Compliance costs and impacts**



There are also indirect and market costs which reflect the impact that regulation has on market structures, consumption patterns and barriers to entry such as through licensing. These impacts predominantly affect customers and other Water Grid participants rather than Seqwater directly, and so have less impact upon Seqwater's forecast expenses.

Other than for new obligations requiring additional resources to ensure compliance, Seqwater has not attempted to quantify its exact costs of compliance, either in total or in relation to most continuing business-as-usual compliance obligations. Nonetheless, it is possible to quantify the number of broad areas of compliance and the approximate number of obligations. It is also possible to map these obligations against the operations of individual teams within Seqwater.

Areas of compliance and numbers of obligations

As listed above, Seqwater considers that there are 20 major areas of compliance that are core to Seqwater's activities relating to the supply of declared water services to the WGM.

Quantifying the number of compliance obligations is also possible, although there are limits to the conclusions that may be drawn from the exercise, given that for instance:

- different obligations can impose requirements to undertake very different levels of activity – some merely require one-off tasks that can be completed easily and cheaply, whereas for others, compliance requires the ongoing attention of entire teams of staff and associated resources;
- some obligations require proactive, preventative or ongoing activities to be performed, whereas others require reactive activities or are conditional in their application; and
- some obligations give rise to numerous and once-off compliance requirements on an ad hoc or case-by-case basis, such as compliance with the development conditions able to be imposed by the Coordinator-General on new dams and other infrastructure.

In counting the obligations in its Compliance Obligation Registers, Seqwater has defined a 'compliance obligation' as follows:

- a provision of an Act or Regulation or legislative instrument (Queensland or Commonwealth) that imposes a specific obligation on Seqwater to do something, is counted as one compliance obligation;
- an obligation imposed on Seqwater by common law, such as a duty of care, is counted as one compliance obligation, even though the application of the common law may require Seqwater to undertake many different activities across many different areas of operations (such as common law negligence); or
- a whole Act or area of law that imposes a general set of related obligations on Seqwater is counted as one compliance obligation, even though there would be many individually identifiable provisions in that area of law (such as the obligations imposed on landholders under the *Property Law Act 1974*, which has been counted as one

compliance obligation, even though there are many individual provisions in that Act requiring compliance activities to be performed by Seqwater).

Taking these considerations into account, the Seqwater Compliance Obligations Registers identify 398 compliance obligations that are considered to impose significant levels of risk on Seqwater. This number is comprised of 332 obligations relating to the compliant performance its water functions, and 66 obligations relating to people and integrity functions.

These obligations can be categorised according to the area of compliance and the teams within Seqwater that ensure compliance, as illustrated in Figure 5.7 below:

***Figure 5.7* – Seqwater compliance obligations, by area of compliance and work group**

Area of compliance	No. of obligations	Main Seqwater teams responsible for delivering compliance
1. Water supply planning	3	Integrated Asset Planning; Asset Policy & Strategy
2. Grid Contract requirements	31	Corporate Counsel (Office of CEO); Water Treatment Operations North; Water Treatment Operations South; Water Quality & Environment;
3. Market Rules requirements	58	Corporate Counsel (Office of CEO); Water Treatment Operations North; Water Treatment Operations South; Dam Operations; Strategic Asset Readiness; Operational Integration;
4. Water ownership and use	91	Corporate Counsel (Office of CEO); Water Treatment Operations North; Water Treatment Operations South; Dam Operations; Water Quality & Environment; Asset Policy & Strategy Project Delivery;
5. Water information reporting	4	Dam Operations;
6. Asset management planning	26	Integrated Asset Planning; Strategic Maintenance;
7. Dam safety and reliability	17	Dam Operations; Project Delivery;
8. Environmental protection	20	Water Quality & Environment; Asset Policy & Strategy Group Support & Catchment Services; Strategy & Sustainability;
9. Water quality requirements	32	Water Quality & Environment;

		Water Treatment Operations North; Water Treatment Operations South; Operational Integration; Project Delivery;
10. Water fluoridation	10	Water Treatment Operations North; Water Treatment Operations South; Water Quality & Environment;
11. Economic regulatory pricing	4	Economic Regulation;
12. Governance and integrity	31	Governance & Compliance; Records Management;
13. Financial Accountability	7	Finance; Strategy & Sustainability; Procurement
14. Workplace health and safety	21	Workplace Health & Safety; Strategic Maintenance; Project Delivery;
15. Workplace relations	7	People & Culture; Finance;
16. Water Grid Communications	1	Corporate & Community Relations;
17. Recreation responsibilities	3	Group Support & Catchment Services;
18. Catchment management	6	Group Support & Catchment Services; Water Quality & Environment; Research Science & Technology; Asset Policy & Strategy;
19. Land ownership	11	Property & Facilities; Legal & Risk;
20. Development requirements	15	Project Delivery; Asset Policy & Strategy; Project Closure;
Total: 20 compliance areas	**Total: 398**	

In understanding these figures, note that:

- no compliance obligations have been counted in relation to taxation, or with respect to local government laws or regulations;
- the Registers are current as at 30 June 2011 and 31 August 2011, respectively, so some new compliance obligations, such as recent changes to the System Operating Plan arrangements, have not been counted;
- there are a number of whole Acts which have been counted as one compliance obligation for these purposes, even though they impose many individually identifiable provisions giving rise to requirements for Seqwater to undertake certain activities, such as the *Property Law Act 1974*, the *Land Act 1994* and the *Building Act 1975*.
- similarly, the *State Development and Public Works Organisation Act 1971* is counted as 2 compliance obligations, because it specifies an obligation to cooperate and consult with the Coordinator-General as it performs its statutory duties, as well as an obligation to comply with conditions imposed in Coordinator-General reports. By way of example, just in relation to the Wyaralong Dam, the Coordinator-General's report imposed 393 conditions around topics such as property impacts, the construction and operation of fishways and fauna corridors, social and environmental management plans, various reporting obligations, and construction impacts such as air, noise and transport;

Seqwater's Procurement Processes

There are many definitions of procurement but almost all relate to the activity that establishes the framework for efficient and effective purchasing of external resources (goods and/or services) for an organisation to meet its objectives at best overall value and with minimal risk.

The scope of Procurement within Seqwater is wider than this definition, as the scope of procurement work includes logistics activities, as illustrated in the overview of Seqwater's procurement processes in Figure 5.8 below.

There are five major *phases* in Seqwater's approach to procurement. Each phase comprises a number sub-processes or *steps*.

The ***Planning*** phase is designed to gather the initial requirements and to determine the most appropriate procurement pathway for a given level of expenditure and risk. Where cost or risk is high, the feasibility of initiating a procurement exercise is considered. The Planning phase includes conducting internal and external analysis, developing and evaluating Sourcing Options and Strategies and culminates with an optimal "go to market" Sourcing Strategy.

The ***Tendering*** phase is used to gather supplier pricing, capacity and potential performance information to be used to select the appropriate supplier(s) for the goods or services required. Supplier contracts are then developed and executed. The *Tender* phase culminates in an Evaluation Report and Recommendation and an executed contract.

The ***Purchasing*** phase covers the operational activities of requisitioning, purchasing, receipting and paying for goods and services. This includes both stock and non-stock items.

The ***Contract Management*** phase is designed to effectively manage the life of the new contract from execution, implementation, to the end of the contracts life. This phase not only ensures that the contracted service levels are achieved, but to discover and realise additional value through the supplier relationship.

The ***Logistics*** phase covers all aspects of logistics and inventory management from receiving items into stock, managing stock levels and rotable items, maintaining the catalogue and issuing stock to users.

Seqwater has a Procurement Policy, to encourage best practice in procurement. It assists staff involved in the procurement process to focus on the business outcomes required by Seqwater and to comply with relevant Acts and Standards.

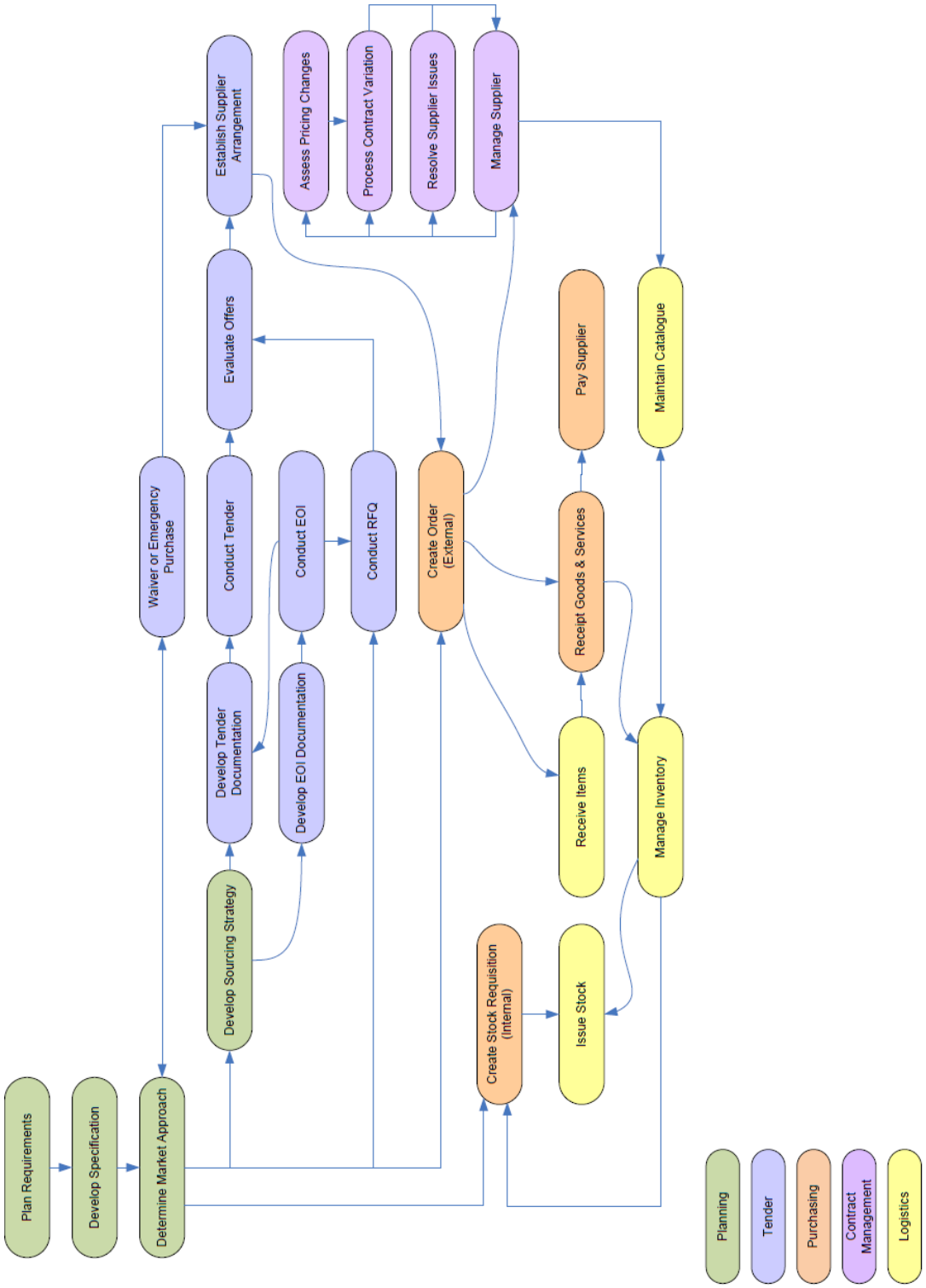
Staff exercising responsibilities within the procurement process must comply with Seqwater's Procurement Policy. The policy applies to the procurement of all classes of resources including human resources, goods, materials, facilities, services, equipment and related services, construction and service contracts and any other contracts for carrying out of work. The policy does not apply to the employment of Seqwater staff or the procurement of land or buildings.

Seqwater has a Procurement Handbook, designed to be used as an internal reference for all staff involved in the procurement process – from complex tender negotiations through to buying something as simple as stationery. The guidance provided in this Handbook ensures that the procurement of goods and services to satisfy Seqwater's business requirements conforms with and complements the objectives of the State Procurement Policy, namely:

- Advancing Government priorities (as outlined in Seqwater's Strategic and Operational Plans, which define Seqwater's stated commitment to advance, through its procurement, certain social, economic and environmental objectives);
- Achieving value for money (not limited to price alone, it includes non-cost factors such as fitness for purpose, design merit, innovation, quality, risk profile, technical compliance, experience, past performance, service and support); and
- Ensuring probity and accountability for outcomes (staff must be able to demonstrate that procurement tasks have been performed ethically, honestly and with fairness to all participants, and achieve legislative compliance)

Seqwater's Procurement Policy and its Procurement Handbook are available to the QCA on request.

Figure 5.8 **– Seqwater Procurement Process Overview**



Chapter 6 – Capital Expenditure 2011-12

This Chapter provides detail on Seqwater's capital expenditure programme for the 2011-12 financial year (currently in progress). Note that references to the phrases "approved" and "recommended" are used interchangeably as per common usage (recognising that for the purposes of determining the GSCs, the QCA recommends and the Price Regulator, being the Minister for Energy and Water Utilities, provides final approval).

6.1 – Capex Programme description

Figure 6.1 below compares, by summary, the capital expenditure budget submitted to the QCA for reviewing the 2011-12 GSCs, with the 30 June 2011 forecast capital expenditure for Seqwater. This includes, but shows separately, the capital expenditure programme of the former WaterSecure. Details of individual projects making up each of these summary totals are set out in Appendix 7 (Seqwater's estimated actual capital expenditure for 2011-12).

***Figure 6.1* – Approved Capex and Estimated Actual Capex for 2011-12**

Capital expenditure category	QCA Approved Capex $'M	Forecast Capitalisation 30/06/12 ($M)
Seqwater		
Drought projects	404.2	409.0
Non-drought projects	35.8	17.6
Non-infrastructure projects	7.8	9.4
Total Grid Capex - Seqwater	**447.8**	**436.0**
WaterSecure		
Non-drought projects	4.4	2.9
Drought Projects	-	7.3
Total Grid Capex - WaterSecure	**4.4**	**10.2**

Drought projects

Drought projects approved by the QCA for 2011-12 amounted to $404.2M. The estimated amount forecast to be capitalised at 30 June 2012 is $409.0M, and there are differences by project that should be noted. These differences are:

- Hinze Dam Stage 3 Construction – Savings of $6.3M in the construction budget due to cost efficiencies achieved by the Alliance were offset by capitalised interest costs of $11.0M not provided for in the original estimate due to changes in completion dates. Overall, the QCA-approved budget of $20.25M for this project will be exceeded by $4.74M.

- Hinze Dam Stage 3 Defects Liability – This budget was directed to the Compensatory Habitat Strategy. Land acquisition costs of $4.2M will be capitalised and the balance of $5.7M for habitat establishment is also expected to be completed and capitalised by 30 June 2012.

- Ewen Maddock AWTP – $0.16M increase from QCA approval of $0.10M. The increase arose following a report by expert consultants identifying the requirement for a more extensive repair process to ensure an epoxy defect is properly rectified. The new cost estimate took the total project cost to $0.26M, an increase of $0.16M.

Also in relation to drought projects, for the 2011-12 GSC the forecast RAB included an amount of $373.4M for the Wyaralong Dam acquisition from QWI.

At the time of acquisition it was discovered that Queensland Treasury Corporation (QTC) borrowings against the asset had been split between dam infrastructure and road assets and each component had a different cost of debt. The specific details of the values are:

- dam infrastructure of $326.7M, which includes $45.1M worth of land assets; and

- road infrastructure of $46.7M.

In its Final Report for 2011-12 GSCs, the QCA recommended that the non-land component of Wyaralong Dam be assigned a life of 150 years. The above disaggregation of the asset requires separate consideration of the life of the road asset. Seqwater submits that a life of 30 years be adopted, consistent with the life assigned for roads by the QCA for the Gladstone Area Water Board.[17]

In addition, other costs were incurred prior to the final transfer of the Wyaralong Dam on 1 July 2011. Actual costs incurred as at 1 July 2011 and not included in the acquisition value of the dam were $0.385M. During 2011-12 a further forecast amount of $0.400M was included in the capital works program and this was approved by the QCA. This amount is now expected to be $0.365M. Seqwater proposes these costs are added to the acquisition cost of the dam.

[17] Refer QCA, 2000, Gladstone Area Water Board: Investigation of Pricing Practices, p 101.

Non-drought projects

Non-drought infrastructure projects recommended by the QCA in determining the 2011-12 GSCs amounted to $35.8M. The estimated amount to be capitalised at 30 June 2012 is $20.0M.

In the period since the QCA approval, there have been a number of changes to the non-drought infrastructure capital works program. The major changes are set out below:

The projects listed in Figure 6.2 below were approved by QCA but are now expected to be completed and capitalised after 30 June 2012.

***Figure 6.2* – Non-drought projects approved and to be completed post 30 June 2012**

Project name	QCA Approval ($)
Mt Crosby WTP Water Quality Improvement	1,000,000
Mt Crosby Eastbank WTP High Voltage Renewals	690,000
Holts / Cameron's Hill Renewal	1,235,000
North Pine WTP flouride dosing point relocation	435,000
North Pine WTP filter upgrade	1,800,000
Molendinar WTP Pipework configuration	355,000
SCADA – Specifications and Scope of Works	1,200,000
SCADA Online Instruments	1,200,000
Various Remote SCADA Access	1,500,000
Various WTP Chemical Dosing Improvements	750,000
Solids Handling	4,000,000
Jimna WTP Upgrade	700,000
Total	**14,865,000**

Figure 6.3 below lists a number of projects that were included in the QCA approval but have not proceeded:

***Figure 6.3* – Non-drought projects approved and not proceeding**

Project name	QCA Approval ($)	Reason
Chemical Storage and Handling	400,000	This work was to be actioned through a flood response project but it has now been decided to incorporate the scope within the asset planning and improvement programs for each individual plant.
North Pine WTP Solids Handling	260,000	Project deferred to 2012-13 to allow for project management resources to focus on higher priorities.
Total	**660,000**	

Figure 6.4 below lists a number of projects relating to non-grid irrigation assets that were included by Seqwater in its submission to the QCA due to oversight and therefore should be removed (and instead recovered by way of renewals from irrigation customers).

***Figure 6.4* – Non-drought projects approved relating to non-grid assets**

Project name	QCA Approval ($)
Pie Creek Renewals	65,000
Clarendon Dam Renewals	52,000
Cedar Pocket Dam Renewals	26,000
Atkinson Dam WTP Renewals	52,000
Total	**195,000**

Figure 6.5 below lists new projects that have been added to the capital expenditure programme and are expected to be capitalised by 30 June 2012.

***Figure 6.5* – New non-drought projects to be completed by 30 June 2012**

Project name	Estimated Cost ($)	Explanation
Landers Shute Stage 2 Trunk Main	1,120,000	In December 2010 this project was forecast to be completed by June 2011, hence no budget was put forward for 2011-12. However additional funding was required to complete the construction and commissioning after the original contractor, McDonald Keen Group Pty Ltd, went into liquidation and receivership with a number of unrepaired major leaks repaired to date. Legal recourse is currently being undertaken and, if successful, net amounts recovered will be offset to the benefit of the WGM.
TBB Remote SCADA Upgrade	239,994	Funding relates to completion of Banksia Beach WTP upgrade (major legacy alliance project handed to Seqwater). In January 2010 this project was forecast to be completed by June 2011, hence no budget was put forward for 2011-12. However additional funding was required for defects rectification, testing, and commissioning.
North Pine Dam Gates Upgrade	873,000	This project was identified as being required following the January 2011 flood event. The project involves installation of a hydraulic backup system for North Pine Radial Gates.
South Maclean WTP Renewals	54,100	Minor works and renewals reprioritisation of program deliverables lead to a reshuffle of deliverables in 2011-12 as prioritisations had changed by July 2011 (to those that were submitted in January 2011), for a total difference of $186,800.
Maroon Dam Renewals	15,000	
Maroon WTP Renewals	70,000	
Caboolture Weir Renewals	10,000	
Cooloolabin Dam Renewals	7,700	
Kings Lane Weir Renewals	10,000	
South Maroochy Intake Weir Renewals	20,000	
Total	**2,419,794**	

It should also be noted that most of these projects are flood-related and subject to insurance claims. Should insurance claims be successful, Seqwater will offset the net proceeds against the capitalised expenditure allocated to the respective projects, to the benefit of the WGM.

Figure 6.6 below lists the approved projects that are expected to be capitalised by 30 June 2012 and have changed from the approved budget by a variance of 30% or greater.

***Figure 6.6* – Capex projects involving budget variance of 30% or greater**

Project name	Variance from QCA Approval ($)	Reason for variance
Mt Crosby Eastbank WTP	-2,000,000	A number of projects that were originally budgeted for in 2011/12 as flood response projects will now not be undertaken separately from the normal asset planning and delivery processes i.e. the scope within the asset planning and improvement programs for each individual plant.
Access to critical infrastructure	-414,000	
Treated water storage	-1,660,000	
Boonah Kalbar WTP	-34,000	Forecast capital expenditure on these projects has been re-phased from the funding allocations put forward in January 2011. Many of these projects required business cases be prepared prior to planning and design activities scheduled to occur in 2011/12. As some business cases are not expected to be delivered until early 2012, it is unlikely that capital expenditure will occur (to the same value as what was proposed in the original budget. Note: also some of the values proposed for these locations are a sum of major capital infrastructure and renewals
Canungra WTP	12,000	
Capalaba WTP	66,985	
Dayboro WTP	70,250	
Enoggera WTP	14,000	
Kenilworth WTP	29,750	
Lowood WTP	-96,000	
Kooralbyn WTP	64,861	
South Maclean	-17,500	
Rathdowney WTP	-80,000	
Caboolture WTP renewals	235,000	Minor works renewals projects were reprioritised in July 2011 to reflect changes in risk and need to the grid. As projects have moved into delivery phases better costs forecasts/actuals have been identified.
Hinze Dam	-311,500	
Image Flat WTP renewals	-213,182	
Lake Manchester	15,935	
Little Nerang Dam	-79,000	
North Pine Dam	-41,000	
North Pine WTP renewals	42,122	
Somerset Dam	39,500	
Somerset WTP	16,000	
Esk WTP renewals	204,642	The existing roof on the clearwater tank at Esk Water Treatment Plant contains asbestos. This roof is in poor condition and is now to be replaced at a cost of $182,000. Also, the existing main switch board at the plant has been identified in an audit as requiring a safety upgrade

		costing $20,000 to bring it to the necessary standards for switch boards. The nature of these safety risks required these projects to be carried out this year.
Kirkleagh WTP	125,537	The budget for this WTP was increased following the identification of chlorine redosing work costing $132,325.
Moogerah Dam	181,000	It was identified that an upgraded safety handrail was needed on the dam crest at a cost of $195,000.
Mt Crosby Eastbank	379,474	Increased costs resulted from undertaking the following work not included in the original budget: • Replace asbestos in corridor between filters and Lime building at a cost of $150,000 - Safety Upgrade • Replace two filter drain valves on filters for a cost of $ 61,500. This job and budget were scheduled in 2012/13, but now the work is now able to be done in 2011/12. • Switch board refurbishment investigation required for $150,000. This is new work required for asset reliability.
Mt Crosby Westbank	430,333	Additional works required as a result of asset failure: • Overhaul clear-water pumps 12 & 13 and refurbish pipe work at a cost of $185,800; • Refurbish raw water pump 5 isolation valves and non return valve at a cost of $300,000.
Noosa WTP renewals	165,000	Additional work to install a new sludge conveyor for $120,000 because the existing conveyer has insufficient capacity to cope with the volume.
Petrie WTP	129,322	Additional work to refurbish sedimentation tank at a cost of $200,000 was required following asset failure.
Total	**-2,724,471**	

Non-infrastructure projects will increase from $7.839M to $9.357M. The main reasons for this are:

- ICT intranet development stages 2 and 3 project costs are expected to increase from $0.120M to $0.400M;
- ICT Asset Replacement Program is expected to increase from $1.406M to $1.433M; and
- Projects including Environmental Wash-Down Bays, Office Fit-Out at North Quay and ICT Merger Related totalling $1.210M were added during the year.

Ex-WaterSecure projects

The former WaterSecure received QCA approval for projects totalling $4.404M for non-drought infrastructure. Following the merger with Seqwater, some changes have affected the approved programme of projects:

- Firstly, the approved non-drought infrastructure to be capitalised by 30 June 2012 amounts to $2.514M which compares to QCA approvals of $2.227M.
- Figure 6.7 below lists the ex-WaterSecure projects that were approved by QCA but are now expected to be completed after 30 June 2012:

***Figure 6.7* – Ex-WaterSecure projects approved, to be completed post 30 June 2012**

Project	QCA Approved Budget ($)
Swanbank Cross Connection	1,500,000
BAWTP Swanbank Treated Water Transfer Pump	100,000
Dinmore Surge Tank Overflow Protection	100,000
Total	**1,700,000**

Figure 6.8 below lists the capital projects were not in the QCA submission but are expected to be completed by 30 June 2012, and which relate to ex-WaterSecure assets such as the GCDP and WCRWS:

***Figure 6.8* – New projects relating to ex-WaterSecure assets**

Project	Budget ($)	Reason for inclusion
Alkalinity analyser	80,000	Identified need for improved controlling of pH and alkalinity to ensure CCPP control at Bundamba caused from variations in supplier lime batching quality control and poor mixing.
Valve spindle extensions	137,689	Improved network efficiency through faster access to network valves. Also safety is improved as confined space access requires additional personnel training and two persons – with spindle extensions confined space access is not required.
Conductivity Analysers for Boron Monitoring	49,340	A relationship between Boron levels in the PRW and conductivity of raw water was found. Installation of these analysers provides the ability to control PRW Boron content with forward control loops rather than reactively responding to breaches.
Provision for Ion Chromatography System	75,328	Eliminates the delays experienced waiting for external labs to provide analyses. This has provided the ability to prevent PHR breaches (chlorate).
Total	**342,357**	

Figure 6.9 below lists the ex-WaterSecure approved projects have not proceeded:

***Figure 6.9* – Approved ex-WaterSecure projects not proceeding**

Project	QCA Approved Budget ($)
Bundamba chemical area storage cover*	457,876
Office Equipment	20,000
Total	**477,876**

* WaterSecure deferred the project pending further investigation of options following the QCA findings relating to this project.

In WaterSecure's 2011-12 GSC submission, QCA was advised that $36.2M in drought capex (Land Compensation $30.1M and Gibson Island Completion $6.1M) for the WCRW was already incorporated in the opening RAB. Following the merger with Seqwater, revised calculations were provided to the QWC that included actual expenditure only, thus excluding these items from the RAB as they were yet to be expended. Seqwater anticipates that this adjustment will be reflected in the RAB provided to the QCA. Hence, the expenditure on these items should be considered as capital expenditure. The expected 2011-12 expenditure for the Gibson Island project is shown in the table below:

***Figure 6.10* – Ex-WaterSecure projects affected by expected RAB adjustments**

Project	Budget ($)
Gibson Island Change Request Capex	1,250,000
Gibson Island Practical Completion	6,084,925
Total	**7,334,925**

Chapter 7 – Capital Expenditure 2012-13

Seqwater's asset base encompasses a wide range of assets, including dams, weirs, off-stream storages and lagoons, water treatment plants, pump stations and pipelines, bores and bore fields, properties and land including buildings, recreation facilities and catchment areas and their natural assets, the Gold Coast desalination plant and the Western Corridor Recycled Water scheme (WCRWS).

Seqwater's total budgeted capital expenditure for 2012-13 is $128.5M.

It comprises:

- infrastructure capex – $93.4M; and
- non-infrastructure capex – $35.1M.

That compares to $461.7M capex approved by the QCA for 2011-12, for Seqwater and WaterSecure combined (a decrease of 72.2%). If material, one-off items are excluded (such as $373.5M for the commissioning of the Wyaralong Dam in 2011-12, $19.0M for the compensation payments associated with the WCRWS in 2012-13 and $0.8M for finalisation works pertaining to the Wyaralong Dam in 2012-13), then the capex figures are $88.3M in 2011-12 and $108.6M in 2012-13 (an increase of 20.0% in real terms).

The $128.5M of budgeted capital expenditure for 2012-13, is approximately 1.98% of the value of Seqwater's total existing asset base of $6.5B (estimated as at 30 June 2012).

In terms of drought and flood expenditure, it comprises:

- drought capex – $23.3M; and
- non-drought capex – $105.1M (including flood related capex of $10.4M)

A detailed description and breakdown of the expenditure is contained in section 7.4 below.

This proposed capital expenditure excludes:

- $500K of capex relating to unregulated assets (such as the Somerset hydroelectricity generation plant);
- $869K of capex relating to the three non-shared irrigation water supply schemes (the two schemes in the Lockyer Valley and the new Cedar Pocket scheme) plus the Pie Creek section of the Mary Valley Scheme; and
- $734K of capex relating to Wyaralong Dam compliance obligations, which correlates with the $5.1M outstanding works, forming part of the value already in the RAB, due to the circumstances surrounding the non-completion of works at the time of the transfer of Wyaralong Dam to Seqwater.

7.1 Historic context of the Seqwater capex programme

2012-13 will be the fifth year of operation for Seqwater. Since 1 July 2008, when Seqwater commenced operational responsibility for the bulk of the ex-council assets transferred to it, Seqwater has successfully managed a number of significant challenges affecting its asset base.

These have included the initial transfer and consolidation of a disparate and diverse range of assets, various critical and transitional works needed in the initial stages of operation, the commissioning and operations of a suite of major new drought assets such as Wyaralong Dam, the introduction of fluoride into drinking water, the January 2011 Queensland floods, the subsequent Queensland Floods Commission of Inquiry, and the recent merger with WaterSecure.

In terms of its capital expenditure program, Seqwater has effectively managed the various challenges since 2008-09 and, in addition to meeting these challenges, is progressing swiftly through the stages of its development as an established, dynamic and forward-looking water business.

Consolidation of asset base and critical works

Most of Seqwater's capital assets were acquired between February and July 2008, via the water market reform process, and were transferred from a range of previous owners including many local governments. Seqwater did not take operational responsibility for most of these assets until 1 July 2008 and, in cases where the transfers occurred earlier than this date, the previous owners generally continued to operate the assets under Interim Service Level Agreements until 30 June 2008. Even after 1 July 2008, many of the assets continued to be operated under Service Level Agreements for some time.

In the years immediately following the acquisition of these assets, Seqwater's capital expenditure program focused on investing in various works identified by the previous asset owners as critical to maintaining ongoing supply. Other significant work related to alignment of these assets, to create consistency in terms of compliance and operations, and to assess the new suite of assets according to factors such as risks and asset criticality.

Commissioning of drought assets

The commissioning of a suite of major drought infrastructure projects has been another major focus of Seqwater's capital expenditure program since its early years. These major drought projects included raising the Hinze Dam wall on the Gold Coast, constructing the Ewen Maddock water treatment plant on the Sunshine Coast and commissioning Wyaralong Dam near Beaudesert. Post commissioning works and some defects rectification work continues in relation to some of these drought assets.

Introduction of fluoride

In response to the introduction of the *Water Fluoridation Act* and *Water Fluoridation Regulation*, enacted in December 2008, Seqwater was required to meet the challenges of introducing water fluoridation services, involving the modification of many water treatment plants.

Queensland floods and Commission of Inquiry

As a result of the floods, Seqwater invested in a number of capital works projects, including flood resilience projects, required to ensure the continuity of supply and drinking water quality compliance.

Significant work continues in response to the full implications of the flood events, including the projects and capital works needed for flood repairs, assessment of insurance implications, and to implement the final recommendations of the Queensland Floods Commission of Inquiry (due to be released after this submission).

Merger with WaterSecure

The merger of Seqwater and WaterSecure was announced on 5 December 2010, with the merger taking effect on 1 July 2011. The merger process required significant work, including in relation to developing a merged organisational structure, transferring staff, and integrating assets, systems, policies and procedures in the new merged entity.

This submission addresses the capital expenditure proposals relating to the assets previously managed by WaterSecure, including the Gold Coast Desalination Plant (GCDP) and the Western Corridor Recycled Water pipeline (WCRWS) and its advanced water treatment plants.

7.2 Regulatory treatment of capital expenditure

A number of regulatory issues arise specifically in relation to the treatment of proposed capital expenditure.

The Ministerial Direction states that expenditure on capital projects approved by the Price Regulator (the Minister) prior to 1 July 2011 should be recognised as being prudent.

Also, Seqwater understands that the QCA intends to continue to recommend that adjustments to the RAB for capital expenditure occur only once the relevant capital project is commissioned and completed.

Furthermore, the treatment of capital expenditure in water supply schemes that jointly serve irrigators, as well as the WGM, warrants consideration. Seqwater considers that the previous approach should be continued pending the regulatory determination of irrigation prices in SEQ for 2013-14 to 2016-17.

Prudency of expenditure approved prior to 1 July 2011

In accordance with the Ministerial Direction, and in line with the previous regulatory approach, Seqwater understands that the QCA will accept the prudency of capital projects already approved by the Minister in his role as the Price Regulator, as at 1 July 2011.

Any review of these projects by the QCA will focus on their efficiency, including an examination of their outturn costs, to occur in future regulatory processes after the projects are completed.

Ongoing projects with capital expenditure in 2012-13

Seqwater understands that the QCA intends to continue to recommend that adjustments to the RAB for capital expenditure occur only once the relevant capital project is commissioned and completed.

Multi-year projects

Consistent with the previous regulatory approach, Seqwater considers that the QCA should not limit its review of capital expenditure to sampling projects that are due to be completed in the forthcoming financial year.

An approach that reviews multi-year projects only in the year of project completion gives rise to significant regulatory risks because expenditure will be committed and spent on projects prior to receiving regulatory guidance and input.

For any project due to be delivered within a single financial year, this problem does not arise because any finding that the project is not prudent will be made in advance, so there is

scope for the project to be cancelled or postponed before any expenditure is incurred. For multi-year projects, however, significant expenditure may be committed and incurred in the years prior to its completion (and QCA review).

The more substantial and financially significant a capital project is, the more likely it is that its construction will occur over multiple years, and the more unmanageable these regulatory risks will become.

Moreover, Seqwater considers that this risk goes beyond that to which other regulated businesses are subjected, due to the annual regulatory cycle that applies to the GSPs. Other regulated businesses face regulatory regimes with the periods of review spanning a number of years (often 5 years). This allows for review of all proposed capital expenditure and, as a minimum, guidance as to whether individual multi-year projects are considered prudent or not, or whether further work is required around substantiation.

Seqwater submits that it should be provided with the same level of regulatory guidance afforded to regulated businesses under other, more standardised, regulatory regimes and should not face greater regulatory risk under this transitional regime compared to the mature arrangements applying to other regulated businesses.

In conclusion, Seqwater submits that the QCA should consider at least the prudency of projects that are due to continue for a number of years but involve significant expenditure in the year ahead.

Specifically, for 2012-13, Seqwater would appreciate feedback from the QCA relating to the following projects, each of which is worth over $1M in total, involves significant expenditure in 2012-13, but is not due to be commissioned until 2013-14 or later:

- the flood damage repairs;
- Ewen Maddock Dam safety upgrade;
- Lake Macdonald Dam safety upgrade;
- Beaudesert WTP upgrade;
- Boonah Kalbar WTP upgrade;
- Canungra WTP upgrade;
- Canungra Off Stream Storage works;
- Capalaba WTP upgrade, Stage 1;
- Image Flat WTP sludge handling and chemical dosing upgrade;
- Kirkleagh WTP upgrade;

- Kooralbyn WTP sludge handling upgrade;
- Landers Shute WTP lime/caustic upgrade;
- Lowood WTP sludge handling upgrade;
- Mt Crosby Eastbank WTP centrifuge works and transfer;
- Molendinar WTP upgrade works;
- Mudgeeraba WTP upgrade works;
- North Pine WTP works, including the sludge handling upgrade, filter upgrade and chemical dosing relocation;
- South Maclean WTP upgrade;
- Online instrumentation upgrades, Stage 3;
- SCADA strategy implementation; and
- Wyaralong WTP works, including preliminary design works and the capitalisation of interest going forwards.

Capitalisation of interest

Also consistent with the previous regulatory approach, Seqwater considers that the QCA should continue to apply interest during construction for ongoing, multi-year capital projects.

Interest costs arise during an extended construction period because progressive payments made during construction will accumulate interest in this period while no income is being earned. In line with the previous approach, Seqwater considers that it is appropriate to estimate interest costs by reference to the allowed rate of return, or regulatory WACC, consistent with last year's approach, because project financing is likely to reflect business gearing. The principal amount that the rate of return should be applied to should be based on an assumed expenditure profile, in turn based on past experience of the expenditure profile for similar assets.

Capital expenditure in irrigation schemes

The Ministerial Direction Notice states that expenses and revenues associated with Seqwater's irrigation schemes must be taken into account.

The treatment of capital expenditure in irrigation schemes differs, depending on whether the irrigation scheme in question services only irrigators (non-shared schemes) or both the WGM and irrigators (shared schemes).

For non-shared schemes, capital expenditure is excluded when determining GSCs, so Seqwater has excluded such expenditure from its 2012-13 capital budget. The non-shared schemes include the two schemes in the Lockyer Valley and the new Cedar Pocket Dam scheme, as well as the Pie Creek section of the Mary Valley scheme.

For shared schemes, which service both customer types, it is required that the expenditure be allocated between the WGM and the irrigation sector.

The approach previously taken for allocating capital expenditure in shared schemes involved treating it as normal capital expenditure, and fully including it in the RAB for the purposes of determining GSCs, apart from the capital expenditure funded from the renewals annuity. The renewals annuity revenue is accounted for separately and held aside as an interim measure.

These arrangements allow for a retrospective adjustment to the RAB, once an approach for allocating capital costs to the irrigation sector is determined in the next irrigation pricing review. Preparations for the next irrigation pricing review in SEQ have commenced and the regulatory determination of irrigation prices will cover the four year period from 2013-14 to 2016-17.

This means that the interim approach described above for irrigation capital expenditure in shared schemes should not need to be rolled over after 2012-13. In the interim, for this 2012-13 period in question, Seqwater considers that the previous approach should be continued.

The shared schemes include the Warrill Valley scheme, the Logan River scheme, the Central Brisbane scheme and the Mary Valley scheme (other than the Pie Creek section).

7.3 Forecasting and delivering the capital expenditure program

With many of the early critical handover works and drought assets completed, Seqwater has recently been able to collate necessary information about its assets, review its project justification procedures and review its prioritisation across the asset base, in order to develop a broader, forward-looking capital investment program.

Whilst some knowledge of the asset base is still being consolidated, Seqwater's capital expenditure program is now being developed with some focus on meeting both short term and long term needs. The major focuses remain on dam safety upgrades, maintenance and ensuring the standard and reliability of the existing asset base, but Seqwater is now also considering efficiency improvements in service delivery and finding efficiencies in the mix of capital assets it manages.

Categorising Seqwater's capital expenditure

The projects comprising Seqwater's capital expenditure program can be divided into the following categories:

1. drought projects and non-drought projects (non-drought projects include a number of recent projects related to the 2011 floods);
2. infrastructure projects and non-infrastructure projects;
3. new projects with capital expenditure commencing in 2012-13 and ongoing projects where expenditure has occurred in previous years;
4. projects expected to be completed and commissioned in 2012-13, and multi-year projects that will not be completed next financial year and will continue to incur capital expenditure in 2013-14 or later; and
5. regulated projects and non-grid funded projects (a small number).

The last categorisation identifies non-grid funded projects, which are excluded from the figures included in this submission and the information provided to the QCA. These projects relate to non-regulated[18] aspects of Seqwater's business and are therefore not included in this review of Seqwater's spending and the determination of GSCs. Examples of non-grid funded projects include those relating to Seqwater's hydroelectricity plants and landlord-related activities pertaining to the building owned by Seqwater at 240 Margaret Street. There are only a small number of these projects.

[18] References to 'non-regulated' assets and services are to be interpreted as those not subject to this regulatory review of GSCs for 2012-13. For example, the irrigation services in non-shared irrigation supply schemes will in the future be subject to a separate regulatory price review, but are not relevant to this review of GSCs.

After the exclusion of non-grid funded projects, the capital expenditure program can also be categorised according to asset type, as follows:

- dams, weirs and other water storages;
- water treatment plants (including the desalination plant, the advanced water treatment plants in the WCRWS, and any pipelines or bores that are linked to the plants);
- the recycled water pipeline network in the WCRWS (the Pipeline Network);
- other infrastructure assets, such as irrigation assets (excluding water storages);
- land;
- buildings, such as administrative offices or Flood Control Centres; and
- other non-infrastructure assets, such as ICT and laboratory assets, instrumentation, SCADA projects, furniture and fittings, plant and fleet, and other minor assets.

All assets either fall into one of these categories or are otherwise located at or linked to sites or facilities dedicated to one of these categories.

Note that Seqwater also owns and operates many pipelines, pump stations, water reservoirs and river intakes that are associated with and physically connected to water treatment facilities. For most internal purposes, and for the purposes of this submission, costs associated with such minor assets are usually allocated to the major asset (usually a WTP) to which they are connected. For example, the Mount Crosby Eastbank WTP is considered to include reservoirs on Holts Hill and Camerons Hill that are used in the water treatment process, as well as the minor pipelines linking the WTP to these reservoirs.

Business needs and investment drivers

Seqwater's annual financial budgets, including for its 2012-13 capital expenditure, are developed to align to six key business needs, also known as its cost drivers or investment drivers.

These six business needs underpin all investment and expenditure by Seqwater and they directly relate to the prudency of the proposed spending:

Demand and growth

This driver is invoked when Seqwater is directed to undertake projects to expand its supply capacity, in order to meet growth in demand.

Expansion to accommodate demand growth occurs in accordance with water supply planning, such as that performed under the SOP, and the supply instructions and demand forecasts provided by the WGM.

Seqwater does not typically pursue projects unilaterally to respond to growth in demand or increased capacity without guidance from the QWC or WGM. The QWC and WGM also have responsibilities in relation to assessing the solutions for meeting growth in demand, in accordance with their obligations under the *Water Act 2000*. These responsibilities have been clarified by recent amendments to the SOP, discussed further in the section on new compliance obligations in Chapter 5.

Where an increase in demand is the basis for proposed expenditure, the increase in demand will be quantified and analysed by having regard to:

- mapping the demand against the long term population and demand projections;
- the instructions of the WGM;
- the capacity of existing assets to deliver against requirements; and
- the modelling of solutions and assessment of options, including timing, deferral, and staged investment options, as well as options to increase efficiency through management of peak demand.

Legislative compliance

Compliance forms a significant aspect of Seqwater's role and responsibilities, as discussed in Chapter 5 on Seqwater's service and compliance framework. Projects aimed at minimising the risks of non-compliance underpin a large portion of Seqwater's capital expenditure, both by number of projects and by percentage of expenditure.

Seqwater is legally obliged to maintain compliance with a range of legislative requirements, including Acts, Regulations, the Market Rules and legislative instruments such formal Ministerial Directions made under Acts. For the purpose of clarity, 'legislative compliance' is intended to encompass compliance with regulations and subordinate instruments.

Seqwater's compliance framework is explained in detail in Chapter 5. Compliance focuses on the obligations that relate specifically to water service providers. But additionally, there is a range of other legislative and regulatory obligations that relate more generally to most business operations, and which also apply to Seqwater by virtue of its functions, activities and governance arrangements. Examples include Workplace Health & Safety legislation, laws relating to the protection of the environment and cultural heritage, laws relating to land ownership and building ownership, as well as various DERM requirements and directions issued by policy makers.

Most businesses, particularly those involved in the provision of essential services such as Seqwater, undertake significant expenditure and investments to manage their compliance with legislative obligations.

Contractual compliance

For Seqwater, compliance also entails significant aspects of contractual compliance. Seqwater holds contracts with its customers including, most significantly, its Grid Contract(s) with the WGM. It also holds contracts with its irrigation customers (and other customers in relation to unregulated services).

These customer contracts impose obligations on Seqwater involving expenditure beyond that required under legislation. For example, in the area of water quality, there are specific obligations in the Grid Contract(s) that are different to the water quality obligations that exist in Commonwealth and State legislative instruments.

Renewal

The renewal driver relates to expenditure associated with replacing assets and generally maintaining service levels from the asset, including in relation to the reliability and security of supply. Renewals expenditure only relates to expenditure or investment in assets which currently meet regulatory or contractual standards.

Renewals planning takes into account the risks and consequences of the failure of assets. When forecasting renewals expenditure, options to consider include increased maintenance costs (planned and reactive), as well as technical options for replacement or refurbishment of the asset itself.

Usually, renewal does not involve any upgrading or changing of the scope of assets. However, in some instances, like in relation to technology such as computerised components or systems, it can be less costly and more efficient (to procure, install and maintain) if renewals revert to more current options that are in line with standardised and commonplace industry practices.

Improvements

Seqwater's improvements driver is invoked when it is requested to improve service levels and reliability at the behest of a customer. An investment or project is justified under this driver only in circumstances where a customer has requested an improvement be made. For example, recent changes have been requested in relation to certain water quality parameters at the Molendinar and Mudgeeraba WTPs.

The WGM is Seqwater's major customer in relation to grid services, so improvements in service standards or reliability will generally be undertaken on WGM instruction.

Efficiency

Cost or efficiency as a business driver is relevant where an opportunity arises to invest resources or expenditure on the basis of an anticipated net financial benefit. For example, this may occur where:

- a process or system can be developed which delivers ongoing efficiency, in terms of lower net operating costs; or
- investment in an asset will deliver a lower lifecycle cost for the particular asset or function in question, or across the business.

Efficiencies are likely to be identified and pursued internally, rather than on the advice of an external party such as a customer or regulatory agency.

Establishing the existence of efficiencies requires a robust financial analysis, and may require assessment of the whole of life costs and benefits of the proposal across an entire asset or process, a sub-service, a regional area or even across the business.

Aligning categories of capital expenditure

The Information Return templates provided by the QCA recognise similar, but not identical, cost drivers to those used internally by Seqwater.

The QCA's list of cost drivers is applied more broadly across various regulated businesses, not just for Seqwater. The cost drivers applied by the QCA are:

1. Demand / Growth;
2. Renewal;
3. Compliance;
4. Service; and
5. Improvement.

The cost drivers applied by the QCA are considered to align fairly closely and usefully with those used by Seqwater. There are only two real differences in the list of cost drivers applied by the QCA, identified and discussed further below.

Seqwater will maintain its internally identified categories of business needs for its own internal purposes, however in line with the Information Reporting template provided by the QCA, it has aligned its capital expenditure cost drivers with those applied by the QCA, as follows:

Compliance

The QCA applies a single cost driver covering all matters of compliance, whereas it is useful for Seqwater internally to differentiate between legislative and contractual compliance requirements. The reporting solution has simply involved Seqwater classifying as Compliance any capital projects or investments based on its identified business needs for either of Legislative Compliance or Contractual Compliance.

Service and Improvement

The QCA nominates cost drivers called Service and Improvement, where Service means expenditure to improve asset efficiency/reliability or minimise non-compliance risks, and Improvement means expenditure aimed at improving operating efficiency (named Business Efficiency in the QCA's Information Requirements).

Seqwater uses two comparable cost drivers internally, however they are named Efficiency and Improvement, where Improvement means expenditure due to service improvements requested by customers and Efficiency means operational efficiencies identified internally that will deliver cost savings.

There is potential for confusion on this point, particularly in the designation of projects pursuing efficiency, so for the purposes of clarity:

- the QCA's Improvement driver is considered to be the same as Seqwater's internal Efficiency driver, so Seqwater has classified as Improvement any capital projects or investments based on internally identified operational improvements leading to cost efficiencies; and
- the QCA's Service driver does not map quite as easily across to Seqwater's internal Improvement driver, because the QCA's driver is more about maintaining service, asset reliability and minimising non-compliance or capacity shortfalls, while Seqwater's driver is used to identify projects needed due to service improvements requested by customers. Seqwater has included in Service any projects needed due to service improvements requested by customers Seqwater. An area where there is some overlap relates to projects focused on asset reliability and minimising non-compliance or capacity shortfalls. Seqwater has attempted to identify some such projects and classify them as Service for the QCA's purposes, but in some cases has continued to classify such projects as Compliance, given the extent to which compliance with the Grid Contract and other parts of the compliance framework control Seqwater's approach to issues such as reliability, compliance and capacity.

Assigning cost drivers to projects

The QCA's Information Requirements require Seqwater to designate which cost drivers or business needs underpin each project or investment listed in the capital expenditure program for 2012-13.

Seqwater notes that there can be considerable overlap between the cost drivers, and that the cost drivers are not mutually exclusive. For example, an instruction from a customer with respect to service standards may be covered by both the improvements driver as well as the compliance driver when the instruction is enacted under the Grid Contract or otherwise enabled by legislation.

Capital projects can be complex and multifaceted, and the description of a project may entail, for example, aspects of demand growth and aspects of compliance. This is particularly true for large projects and investments involving existing assets, where any upgrade or change in scope should necessarily entail considerations relating to renewals as well as the potential for efficiencies.

Also, multi-year projects involving major assets may involve one cost driver in the early stages of works and then move to satisfying other business needs towards the late stages of those works. For example, a WTP may need urgent renewal works in the upcoming year to maintain service levels and comply with ongoing water quality obligations, and also need longer term works to meet forecast growth in demand.

Furthermore, as Seqwater's internal capabilities develop, it is becoming better able to analyse how projects can interact and coordinate within the broader functions, activities and goals of the business. For example, the options for a project can be assessed having regard to potential improvements and efficiencies in the business' broader functions and processes, longer term implications relating to demand and growth and the use of natural asset alternatives, and how bulk water supply solutions can be better integrated and coordinated over wider geographical areas.

In order to best categorise its capital projects and investments in 2012-13, Seqwater has focused on identifying the primary or source driver for expenditure in the 2012-13 year, rather than proportionally assigning percentages of the expenditure to different drivers. This approach may be refined in future years, in consultation with the QCA.

Seqwater notes that whilst its business is in a developing state of maturity, the primary driver of its capital expenditure program is likely to continue to be compliance, as it becomes fully aware of the risks, quantification and best options for management of the compliance issues under its customer contracts and all applicable legislative instruments.

Seqwater's Asset Management Framework

Seqwater manages a complex asset portfolio, comprising a range of natural and built assets of varying asset types, ages, sizes, geographic dispersion and condition accompanied by varying degrees of asset information and knowledge. Seqwater recognises that its effectiveness as a business is underpinned by its understanding and management of its assets.

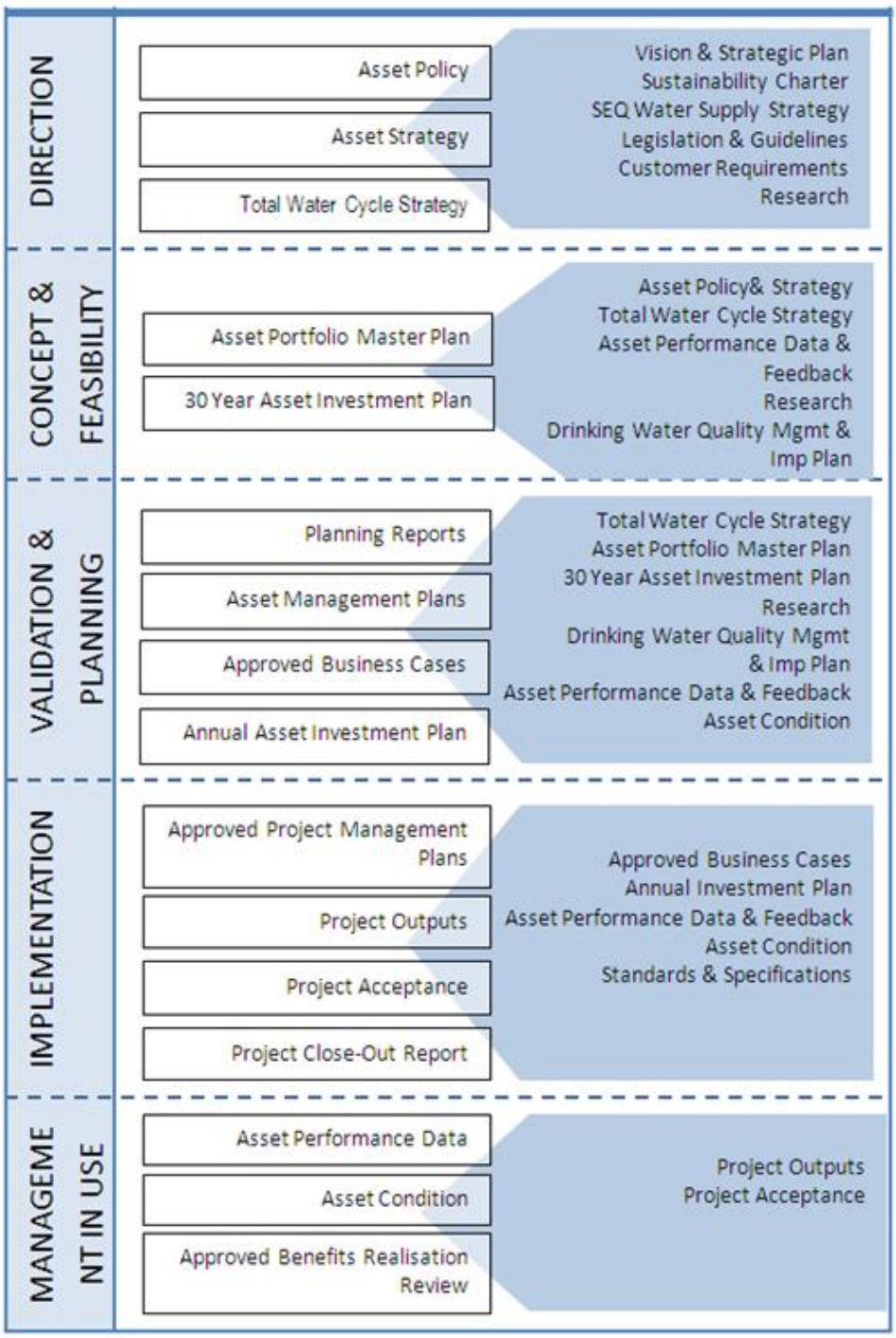
Seqwater notes the following definition of asset management (PAS 55-1:2008, British Standards Institute):

> *"Asset management is the systematic and coordinated activities and practices through which an organisation optimally and sustainably manages its assets and asset systems, and their associated performance, risks and expenditures over their life cycles for the purposes of achieving its organisations strategic plan."*

In 2010-11, Seqwater commenced development of an overarching Asset Management Framework to manage its assets, as illustrated in Figure 7.1 below. Seqwater's Asset Management Framework aims to facilitate improved integration, planning and management of natural and built assets. It seeks to better leverage investment in Seqwater's Research, Science & Technology team to pursue the most efficient ways to address compliance risks in the treatment of bulk water across source, store and supply multi-barriers, as well as to ensure reliability and security of supply. It also aims to align with the delivery of Seqwater's Strategic Plan and attain successful performance in asset management by achieving:

- uniform organisational processes in asset management;
- prudent asset investment decision-making;
- a balanced approach to investment across our catchments;
- standardising processes for successful asset management (including project delivery); and
- delivering efficient outcomes and value for money.

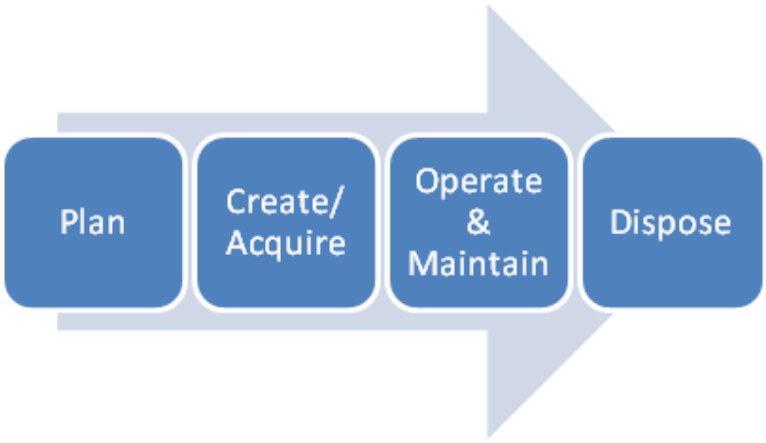
***Figure 7.1* – Asset Management Framework (overview)**



A number of supporting elements of the Asset Management Framework are under development, with key elements being developed, trialled and documented before formal adoption. As can be seen in Figure 7.2 below, Seqwater's asset management function is broad and encompasses the entire lifecycle of physical assets, from direction setting, to

management in use, to disposal, as well as considering the broader direction and long term planning of its asset portfolio.

***Figure 7.2* – Seqwater view of the complete asset life cycle**



Specifically, the Asset Management Framework incorporates five phases comprising: **Direction**, **Concept and Feasibility**, **Validation and Planning, Implementation,** and **Management in Use**.

Figure 7.3 below illustrates how the different phases in the Asset Management Framework fit together in practice, and Figure 7.4 shows how each phase is managed within Seqwater.

***Figure 7.3* – Asset Management Framework (Delivery)**

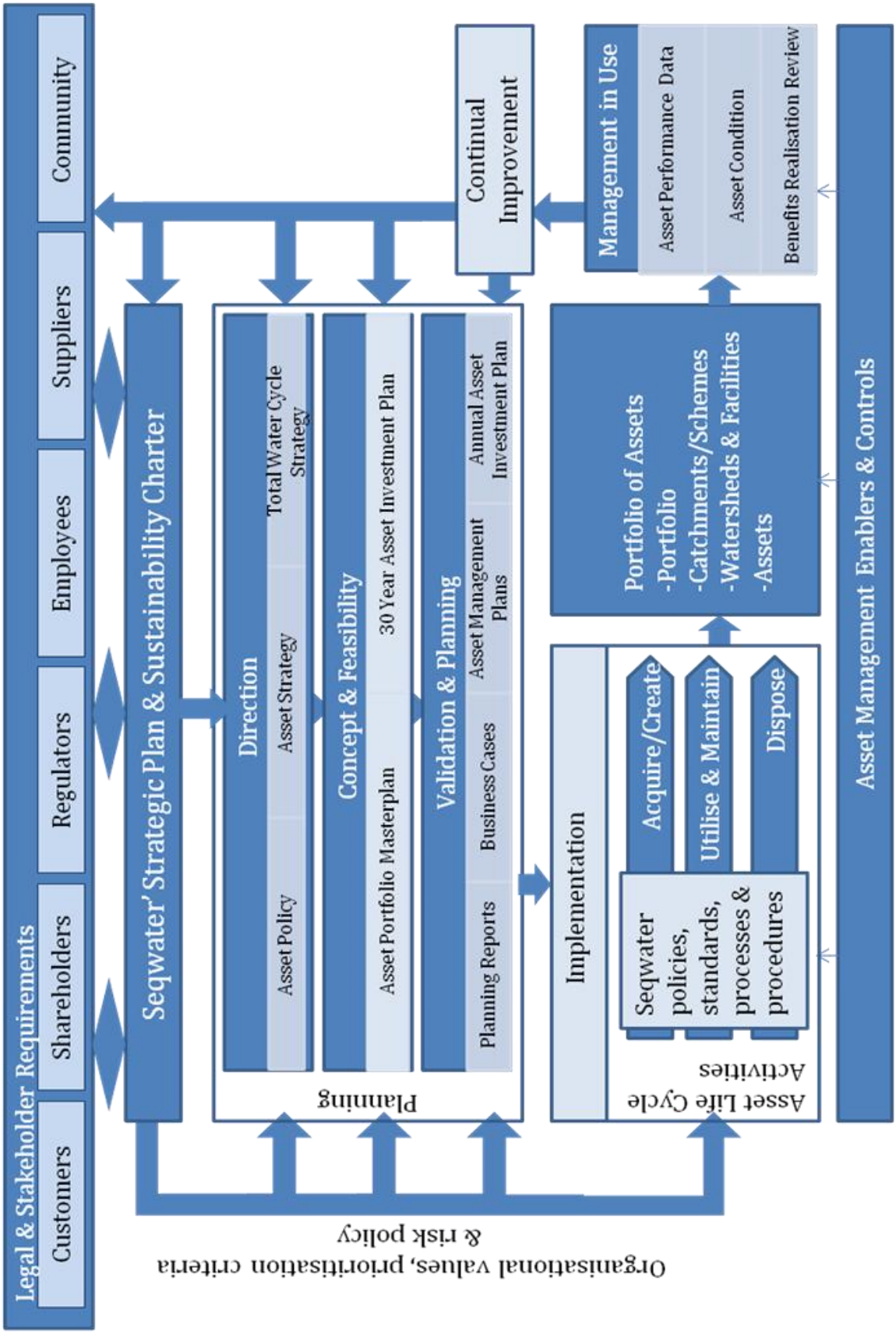
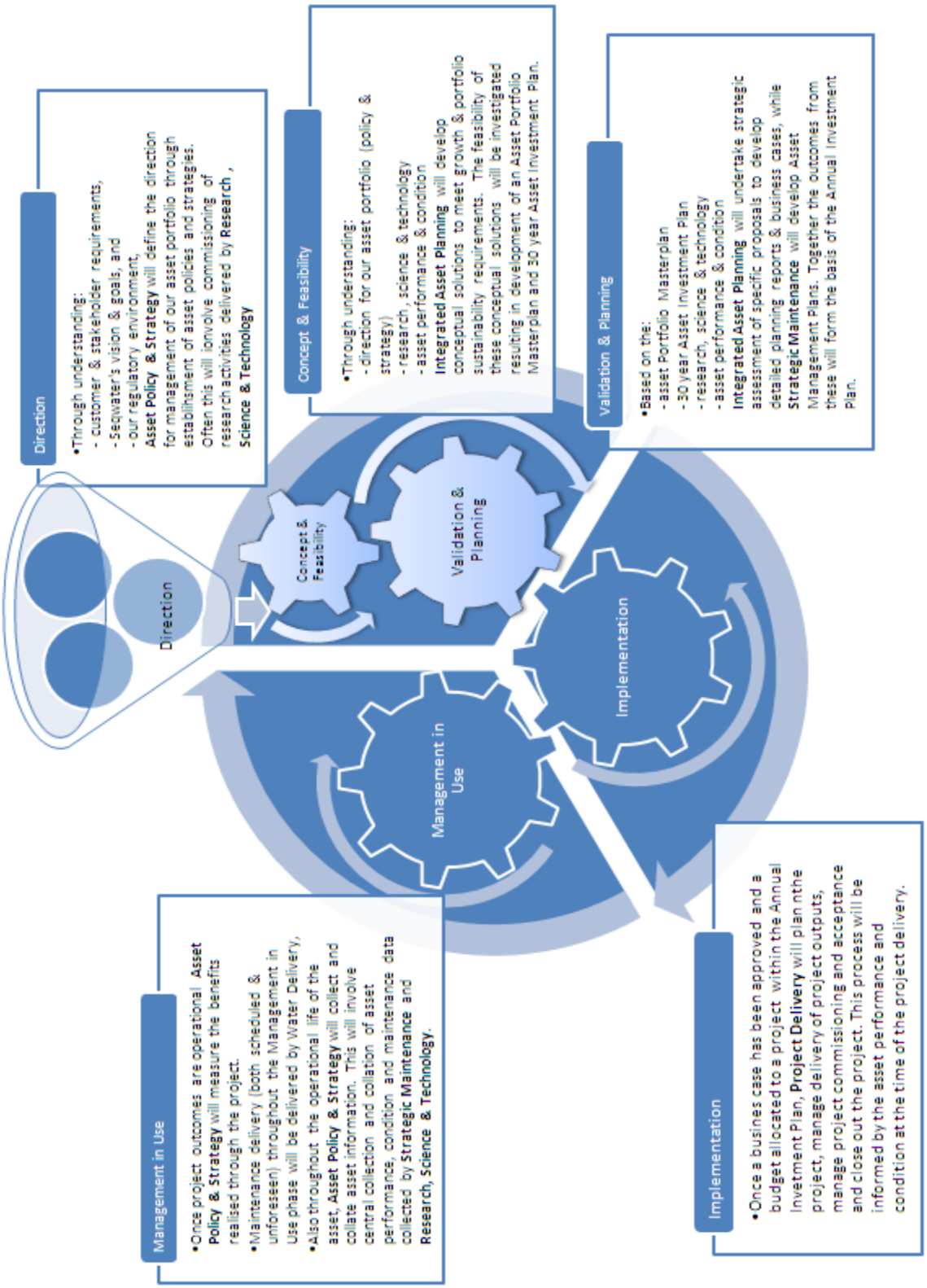


Figure 7.4 – Asset Management Framework (Cog Overview)



Asset management within Seqwater is performed predominantly within the Asset Delivery Group, with the following teams dedicated to these specific aspects of asset management:

- **Asset Policy & Strategy** – responsible for developing and managing the strategies and policies relating to asset management, responsible for owning and managing asset information, playing a liaison role with key external stakeholders who influence the direction for management of Seqwater's asset portfolio, and overseeing benefits realisation review of asset investment (Direction phase, Management in Use phase);

- **Integrated Asset Planning** – responsible for the portfolio level master planning for Seqwater's catchment based assets. This includes regional, sub-regional and individual asset planning up to a 30 year horizon. The master planning process verifies needs of the business and identifies options for major changes to the attributes of our assets which may be required over time. It is also then the responsibility of this team to validate the actions required under the master plan as and when they fall due. This process involves the completion or validation of Options Studies and preparation of subsequent Business Cases for approval of capital projects. (Concept & Feasibility phase);

- **Project Delivery** – responsible for managing each stage of the delivery of capital projects, including project planning, project implementation, project support and project conclusion, for the entire asset portfolio including major capital and operational projects, built asset refurbishment and renewals, and natural asset projects (Implementation phase);

- **Strategic Maintenance** – this team does not deliver the maintenance, but optimises the efficiency of the maintenance activities undertaken, by developing the processes used to identify maintenance requirements, and then implementing those processes through systems (for example the Corporate Information System). The group is also responsible for maintenance planning, across the Seqwater's asset portfolio, including for land and recreation assets as well as infrastructure assets, as well as the development of Facilities Asset Management Plans (FAMPs), Natural Asset Management Plans (NAMPs) and Recreation Asset Management Plans (RAMPs), as well as compliance auditing (Validation & Planning phase, Management in Use phase); and

- **Program Management Office** – responsible for supporting the operations of the Asset Delivery Group, by reporting on the program of operational and capital projects, providing project and financial support in the delivery of project outputs to maximize program deliverables, preparing defined budgets for future years' asset management programs and development of financial processes (Purchase Order processes) for project expenditure and ongoing expenditure review.

Some other asset management activities are conducted within other parts of the Seqwater business, pertaining to specific assets or asset classes, such as:

- Technical Warranty & Development group – responsible for the management of the Gold Coast Desalination Plant (GCDP) and the Western Corridor Recycled Water scheme (WCRWS), with certain asset management functions performed by contractor Veolia Water under long term legacy contracts;
- Group Support and Catchment Management Services team within the Water Delivery group: responsible for the management and maintenance of the recreation assets located in Seqwater's recreation sites; and for the management and maintenance of certain natural assets located within Seqwater's water catchment areas;
- Water Quality & Environment team within the Water Delivery group: responsible for management of non-infrastructure assets relating to water quality testing, such as instrumentation, water quality and event gauging stations and laboratory equipment;
- Property & Facilities team within the Business Services group: responsible for land and building management as well as fleet; and
- Information Communications & Technology (ICT) and Records & Information Management (RIM) teams within the Business Services group: responsible for the provision of information and communications technology and records and information management, respectively, and management the non-infrastructure assets relating to these services such as hardware, software and databases.

Asset policies and strategies, direction and management-in-use

The Asset Policy and Strategy team within Asset Delivery group develops and maintains Seqwater's policies, strategies and procedures relating to asset planning, delivery and maintenance, including the broader catchment portfolio, as well as managing asset information and benefits management. The core functions of the team are as follows:

- development, management and maintenance of asset policies and strategies;
- asset management information services for all assets;
- activities associated with the alignment of assets, asset management practices, procedures and data management across the asset portfolio;
- setting the direction for future asset management and ensuring a sufficient, but prudent level of asset investment, including catchment investment; and

- stakeholder group development and participation (both internal and external stakeholders, with particular focus on key external stakeholders who influence the direction of asset management).

The Asset Policy and Strategy team has responsibility for the following significant documents and processes:

- the Seqwater asset policies, strategies and procedures, including individual policies, strategies and procedures (see the draft Seqwater Asset Policy and Strategy Map in Figure 7.5 below);
- sponsorship of components of the research program to ensure Seqwater's direction is best informed by research, science and technology; and
- asset information.

***Figure 7.5* – Seqwater Asset Policy and Strategy Map**

In performing its activities, the Asset Policy and Strategy team produces the following significant outputs on an ongoing basis:

- asset information management and asset information services to the organisation;
- development and maintenance of the currency of Seqwater's asset policies, strategies and procedures;

- benefits management, including benefits realisation reviews and workshops following completion of projects;
- benchmarking and industry practice reviews; and
- consultation and liaison with key internal and external stakeholders who influence the direction of asset management.

During 2011-12, Seqwater undertook an internal benchmarking exercise of reviewing its functions and the scope and content of the asset management policies, strategies and procedures it is developing under the Asset Management Framework against accepted asset management industry best practice.

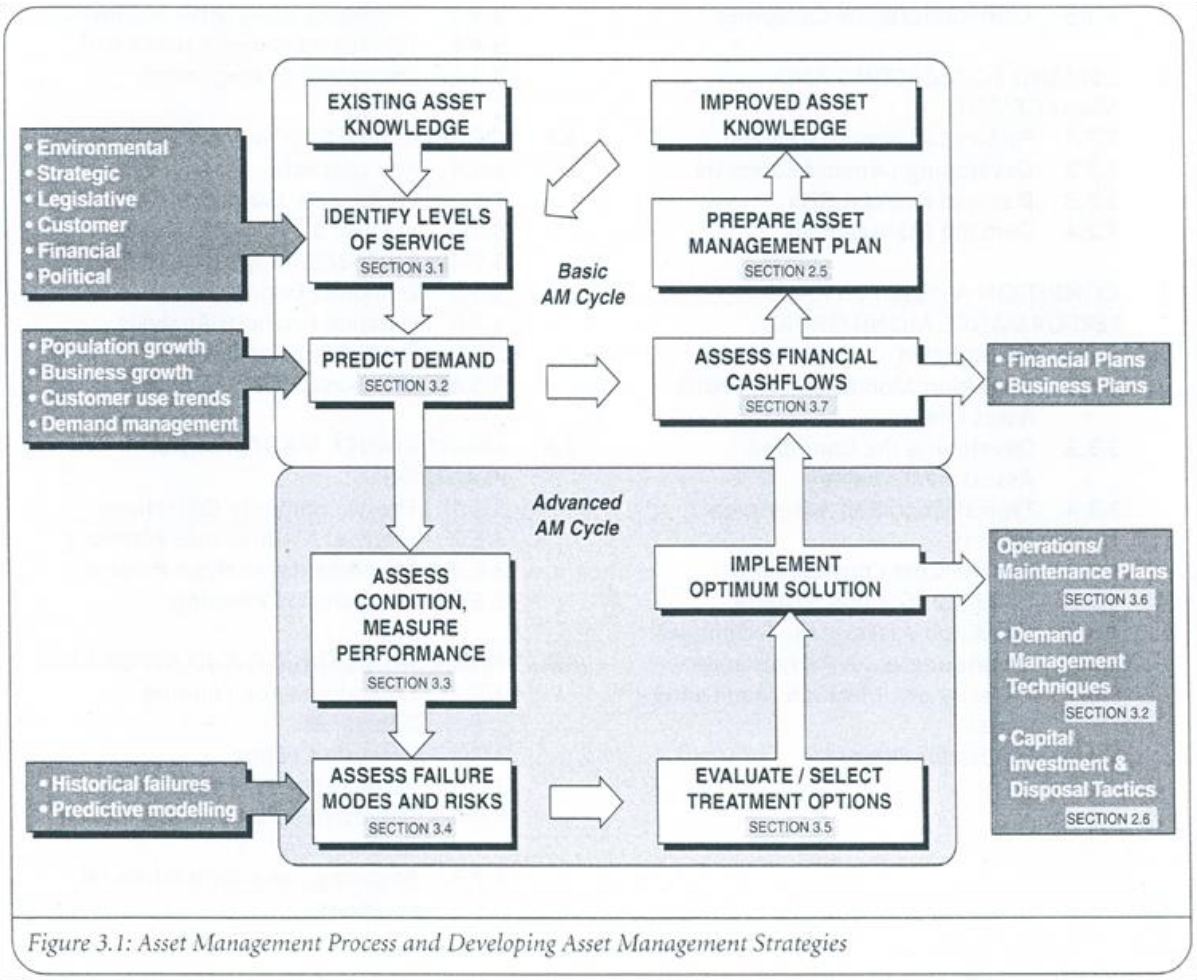
The International Infrastructure Management Manual (IIMM) (IPWEA, 2006) and the UK Publically Available Specification - the Optimized Management of Physical Assets – No. 55 (PAS-55) (IAM, 2008) are widely accepted best practice industry guides for asset intensive organisations, such as Seqwater, in developing and implementing asset management frameworks and best practice asset planning and management practices.

The IIMM's approach and scope for development and implementation of an Asset Management Plan was used to ensure the scope and content of the policies, strategies and procedures being developed by Seqwater would deliver a mature and comprehensive asset management framework.

PAS-55 was reviewed to ensure the scope and content of relevant policies, policy directives, strategies and procedures being developed by Asset Policy and Strategy group addressed the relevant aspects of this standard's asset management principles.

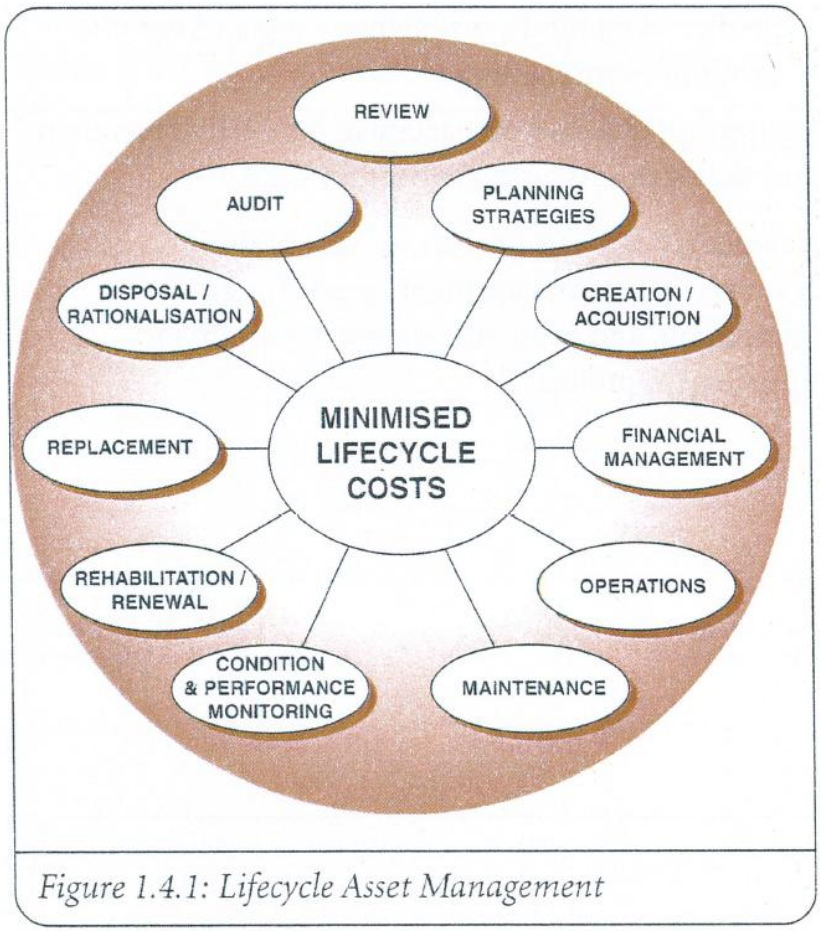
The Asset Policy and Strategy team reviewed the IIMM to confirm that the Asset Management Framework and respective asset management policies, strategies and procedures do in fact address the key points on the manual's roadmap for development of a comprehensive asset management planning approach, illustrated in Figure 7.6 below.

***Figure 7.6* – Asset Management Process and Developing Asset Management Strategies (from IIMM, IPWEA 2006)**



In addition, assets within the portfolio of assets Seqwater is now responsible for are at different points on the asset lifecycle. Therefore, the asset management framework has been assessed for its ability to address assets at all points of the asset lifecycle, as illustrated in Figure 7.7 below.

***Figure 7.7* – Asset Management Lifecycle (from IIMM, IPWEA 2006)**



In this respect, Seqwater's development and implementation of the Asset Management Framework will:

- address development of a complete and accurate Asset Register of all assets and capture of all critical asset information;
- in consideration of Seqwater's Grid Contract and the Grid Operating Protocols, confirm what levels of service (performance standards) existing assets are required to sustain over their predicted residual lives to meet SEQ growth demands as determined by the Queensland Water Commission;
- conduct an asset condition assessment (to a basic level) of all assets and a detailed condition, risk and criticality assessment of identified critical assets;
- determine the condition and performance based residual lives of all assets in order to determine the lifecycle and renewal costs of the asset portfolio;
- undertake asset risk and criticality assessments to determine which assets pose the greatest business risks with asset failure for a prioritised, more detailed assessment;

- optimise the operation and maintenance regimes for both critical and non-critical assets (where opportune) to minimise overall business risk to asset failure;
- plan asset investment, renewal and disposal solutions, focussing on priority assets and others when appropriate, to meet Grid Contract obligations and level of service requirements (performance standards); and
- determine and maintain a prudent 30-year forecast of asset investment and operational funding requirements - reviewed each year as Seqwater improves its knowledge of its assets.

Capital planning and forecasting capital expenditure needs

Capital planning activities within Seqwater are predominantly undertaken by the Integrated Asset Planning team within the Asset Delivery group, which has responsibility for asset portfolio master planning, asset planning and developing the business cases underpinning capital projects (the Concept & Feasibility and Validation & Planning phases in Seqwater's Asset Management Framework).

Some other capital planning activities are conducted within other parts of the Seqwater business, pertaining to specific assets or asset classes, such as:

- Technical Warranty & Development – management of the capital planning requirements relating to the GCDP and the WCRWS, with some capital planning functions performed by Veolia under long term legacy contracts;
- ICT and RIM; and
- Property & Facilities.

In managing its capital planning function, the Integrated Asset Planning team in the Asset Delivery Group has the core functions of translation of Seqwater policies and strategies into the Asset Portfolio Master Plan (APMP) and Asset Portfolio Investment Plan (APIP). The APMP takes a 30 year view with regard to our catchment based assets and provides the criteria used to determine asset investment prioritisation. The master planning process is a consultative process, engaging internal and external stakeholders to understand our business drivers, verify the optimum Grid and business response, and identify options for major changes to the attributes of Seqwater's catchment assets which may be required over time. These plans are then validated and implemented through the production of Options Studies and Business Cases. This process includes the undertaking of the following:

- regional, sub-regional and individual asset planning for catchment based assets;
- asset risk assessments;

- asset condition and criticality assessments;
- concept and feasibility studies to clarify or determine needs for asset investment;
- validation and planning studies to determine and evaluate options; and
- developing the business cases underpinning capital projects.

The team has responsibility for the following significant documents and processes:

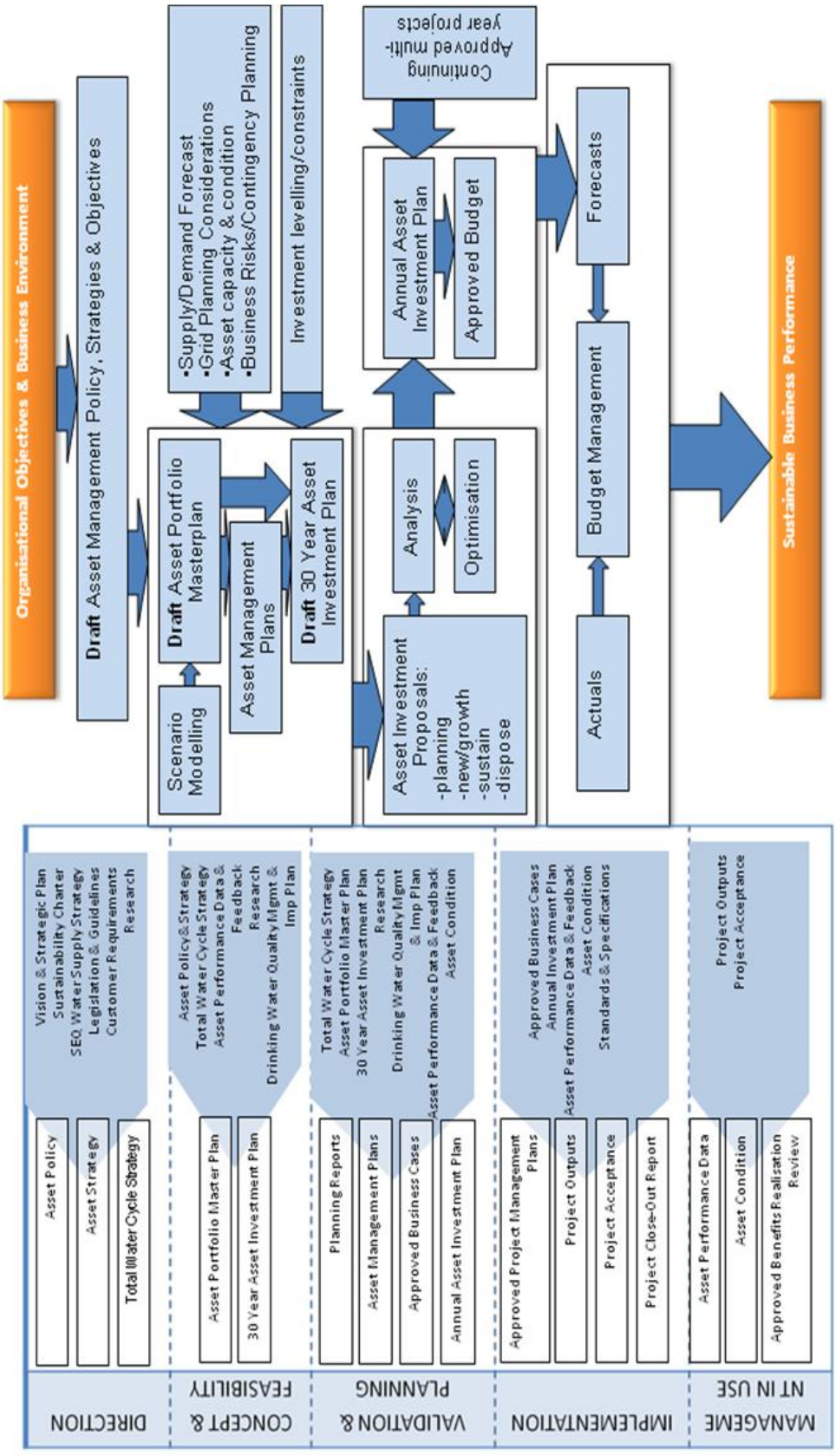
- the Asset Portfolio Master Plan;
- the 30 Year Asset Portfolio Investment Plan;
- Regional and sub-regional planning reports; and
- Business Case completion and associated processes.

In performing its functions on an ongoing basis, the team delivers the following significant outputs:

- asset risk and condition assessments;
- planning reports;
- options studies; and
- business cases.

Seqwater's proposed capital expenditure for 2012-13 has been prepared in the following way:

Figure 7.8 – Asset Investment Planning 2012-13



Key underlying principles for development of the 2012-13 capital expenditure program included:

- reduction of the risk profile associated with dam upgrade projects;
- continuing work to improve asset knowledge and focus investment on all assets with a view to reducing risk profile – across built and natural assets;
- rationalising water treatment plant assets (and optimising catchments) through effective portfolio planning and influencing grid planning;
- finalising flood repair works and associated insurance claims;
- continuing to evaluate and integrate source, store and supply assets in portfolio planning and investment decision making;
- maximising efficiency across source, store and supply assets;
- continuing to target research to address catchment investment efficiency within the treatment process; and
- enhanced deliverables to include improved sustainable business outcomes.

In developing the 2012-13 capital expenditure program, prioritisation criteria included strong reliance on business drivers, as outlined in the section above on business needs and investment drivers.

In determining its capital expenditure budget for the forthcoming year, Seqwater has had particular regard to its existing service requirements, the current framework of compliance obligations including those pertaining to water quality such as through the Grid Contract(s), and any scope for delivering immediate efficiencies, as follows:

- investments necessary to meet existing Level of Service (LOS) standards, as specified in the SOP and contracts with the WGM and other customers, including with respect to:
- the quantity and quality of bulk water required under those contracts and law (contractual and legislative compliance, demand and growth);
- maintaining the capabilities of assets to deliver the required services (renewals); and
- meeting any new needs including higher service standards or the standardisation of the capabilities of various assets (improvements);
- investments necessary to directly comply with various legislative and contractual obligations, such as instructions or directions from the Minister or DERM, or to mitigate risks of non-compliance, including with respect to obligations pertaining to water quality,

dam safety, corporate governance, environmental protection, public safety, workplace health and safety, cultural and heritage protection and so on (legislative and contractual compliance); and

- investments considered likely to decrease overall costs or to more efficiently deliver the necessary outcomes relating to service standards or compliance (efficiency).

In determining its capital expenditure budget, Seqwater also has regard to its medium-term view of its operating environment in terms of projected demand. As actual demand and projected demand can and do often vary, Seqwater takes an approach that some investment will occur as nominated demand triggers are reached, thus ensuring investments are made at the appropriate time, and not before time.

In addition to the above, Seqwater must also consider Grid resilience. Planning Grid resilience includes but is not limited to the ability of the Grid to continue to operate during and after major events and plant shutdowns, planning and unplanned, through alternate water sources and appropriate levels of redundancy commensurate with risk.

The level of accuracy in forecasting the capital expenditure programme outlined in this Chapter can be expected to be less reliable the further out the costs are expected to arise. Even for its short term program, Seqwater recognises that factors relating to the present stage of its development, will result in its forecasts being less reliable than would be the case for a mature organisation with a better historical profile of its full asset base.

Seqwater understands that it will continue to have the opportunity to manage and prioritise its own capital expenditure throughout the regulatory period including making adjustments, where necessary, in response to changing asset requirements and changes in the external operating environment, such as amendments to customer contracts or other compliance obligations. Seqwater strongly supports this approach.

Seqwater's capital planning processes are subject to ongoing development, consistent with asset priorities and the emerging maturity of the business. The capital planning process has been subject to ongoing review and refinement as the organisation has sought to better accommodate, consolidate, standardise and prioritise the full suite of assets it manages. Some refinement is still required before these processes are fully developed.

Project delivery, implementation and deliverability of the capex programme

The Project Delivery team within the Asset Delivery group manages each stage of the delivery of capital projects, including project planning, project implementation, project support and project conclusion (the Implementation phase in Seqwater's Asset Management Framework).

Other similar project delivery work is performed by the Technical Warranty & Development Group – being management of the engineering services relating to the GCDP and the WCRWS, with some project delivery work performed by Veolia under long term legacy contracts.

The core functions of the Project Delivery team within the Asset Management group are as follows:

- provision of strategic project delivery support to the Integrated Asset Planning team during the development phase of capital projects
- planning for delivery of the full program of capital and major operational renewal projects
- detailed project planning for medium and major capital and operational renewal projects
- achievement of relevant project approvals for major capital projects that require environmental and planning approvals
- engagement and management of engineering consultants in the detailed scoping and design of capital and major operational renewal projects
- development of project procurement strategies to maximise value for money outcomes whilst ensuring efficient program delivery
- procurement and management of contractors to execute capital and major operational renewal projects
- management of safety and environmental issues in the delivery of projects, in line with relevant standards
- measurement and reporting of progress

The team has responsibility for the following significant documents and processes:

- Project Management Methodology
- Project Management Plan framework
- project and program measurement, control and reporting framework
- contract templates for the engagement of consultants and contractors

The Asset Management Framework, explained earlier in this Chapter, drives a consistent and systematic approach for Seqwater's asset management, which incorporates operational and capital investment in built and natural assets.

The 2012-13 Asset Investment Plan has been developed based on the principles of the Asset Management Framework. This means that a need for asset investment is identified

prior to the development of a solution, with the outcome being optimised solutions using a combination of operational and capital investment. All newly proposed projects have used supporting governance processes in place as part of the Asset Management Framework.

Deliverability of the capital expenditure program

Seqwater has confidence in its 2012-13 Capital Expenditure Budget,resulting from the following:

- key positions in the Asset Delivery group have recently been filled;
- an appropriate resourcing strategy supports the 2012-13 Budget;
- planning and process development has progressed such that implementation of the Asset Investment Plan is more resilient; and
- there has been increased rigour in the development of the capital expenditure program for 2012-13.

Furthermore, the planning and development of Seqwater's capital expenditure budget for 2012-13 has made allowances for project managers within the proposed capitalised costs for certain projects, to ensure Seqwater has adequate capacity to deliver the proposed program of capital works.

Stakeholder engagement in capital planning

As Seqwater's major customer, the WGM is required to endorse projects involving capital expenditure exceeding $2M.

In relation to capital planning more generally, Seqwater notes the recent amendments to the SOP, explained further in the section on new compliance obligations in Chapter 5 on Service & Compliance, and notes that the responsibilities of the various Water Grid entities are still in a transitional and developing state. The various responsibilities of the entities, particularly pertaining to long term planning, may not yet strictly or clearly align with the apparent intended market design. The new SOP introduces a planning process which is being implemented for the first time over a period that overlaps with this review of GSCs.

Because the management of long term planning is yet to be fully institutionalised, a cooperative and consultative approach is required to ensure that key considerations in achieving optimal long term solutions are not inadvertently overlooked.

Seqwater aims to have an open and consultative approach to its longer term planning for capital expenditure. This is particularly relevant for investments relating to growth and demand drivers, where the ideal planning arrangements and information may not yet be in

place or fully developed. Seqwater is conscious that, while the intended market arrangements are maturing, its long term supply obligations and efficiency objectives should be maintained. To that end, Seqwater seeks to facilitate market capability and planning synergies via support for regional planning and similar cross-grid forums to support decisions regarding future investment. In this transitional period, some projects relating to growth and demand may still refer to such planning study outcomes rather than WGM or QWC planning as identified above.

Focus on 2012-13 expenditure

Seqwater understands that in the context of the Direction provided, the QCA is seeking to focus on expenditure proposed, and assets due to be commissioned, in 2012-13. Therefore, this submission has not sought to provide substantive information regarding Seqwater's long term capital expenditure program (noting, however, the concerns expressed elsewhere with respect to regulatory certainty and multiyear projects that are not due to be commissioned yet involve significant expenditure within 2012-13).

When a longer term economic regulatory pricing framework has been settled, Seqwater would welcome the opportunity to discuss with the QCA its proposed direction, including topics such as internal service delivery via regional hubs, the potential benefits from assessing project needs on a regional basis rather than asset-by-asset, and the better utilisation and integration of natural assets.

Commissioning of capital assets

The expected commissioning dates and asset lives for major new and ongoing capital projects have been identified within the Information Return template relating to Seqwater's proposed capital expenditure in 2012-13.

These dates may be subject to change, pending the progress of works and the development of more detailed project information. The expected commissioning dates will also be reported to the QCA.

The Chapter of this submission pertaining to the RAB contains a more detailed discussion of regulatory considerations regarding capitalisation and the incorporation of costs into the RAB.

Consistent with the past approach, capital projects and investments that will be both commenced and completed within the financial year will be added to the RAB mid-year, on 1 January 2013.

7.4 Budgeted 2012-13 capital expenditure

This capital expenditure budget, as contained in Seqwater's 2012-13 Information Return to the QCA, reflects the budget for the forward years as identified and approved by Seqwater's Board in February 2012.

Seqwater's total budgeted capital expenditure for 2012-13 is $128.5M, comprising:

- infrastructure capex of $93.4M; and
- non-infrastructure capex of $35.1M.

This budgeted capital expenditure excludes:

- $500K of capex relating to unregulated assets (the Somerset hydroelectricity generation plant);
- $869K of capex relating to the three non-shared irrigation water supply schemes (the two schemes in the Lockyer Valley and the new Cedar Pocket scheme) plus the Pie Creek section of the Mary Valley Scheme; and
- $734K of capex relating to Wyaralong Dam compliance obligations, which correlates with the $5.1M outstanding works, forming part of the value already in the RAB, due to the circumstances surrounding the non-completion of works at the time of the transfer of Wyaralong Dam to Seqwater.

Seqwater's capital investment program for 2012-13 focuses on:

- upgrades and works at existing facilities, particularly key WTPs, to provide necessary improvements to the reliability of specific assets and a greater level of uniformity in the standards of services provided across the asset base;
- the renewal of the existing asset base to maintain service standards and reliability ($26.6M of renewals in total, excluding renewals relating to the GCDP and WCRWS);
- works necessary for rectifying flood damages ($9.8M) as well as improving the flood resilience of existing assets ($0.5M);
- dam safety upgrades ($8.4M in total);
- necessary works pertaining to the GCDP and WCRWS, for maintaining service and asset reliability, including renewals, compliance and efficiency driven projects ($15.9M in total, comprised of $8.4M for the GCDP, $2.4M for the Bundamba AWTP, $1.9M for Luggage Point AWTP, $0.3M for Gibson Island AWTP, and $2.8M for the Pipeline Network);

- drought projects ($23.3M in total) comprised of compensation payments in relation to easements required for the WCRWS ($19.0M) and post commissioning and defects period works in relation to the Hinze Dam raising and Wyaralong Dam ($2.3M); and
- software and ICT hardware ($7.9M in total, comprised of $1.2M for a new document and records management system, $2.3M for HR and payroll software, $2.0M of other software and $2.4M in network and server infrastructure and other ICT projects, plant and equipment.

These major focuses are reflected in the proposed investment profile for 2012-13.

Capex compared to total asset value

The total budgeted capital expenditure for 2012-13, of $128.5M, is approximately 1.98% of the value of Seqwater's total existing asset base of $6.5B (estimated as at 30 June 2012).

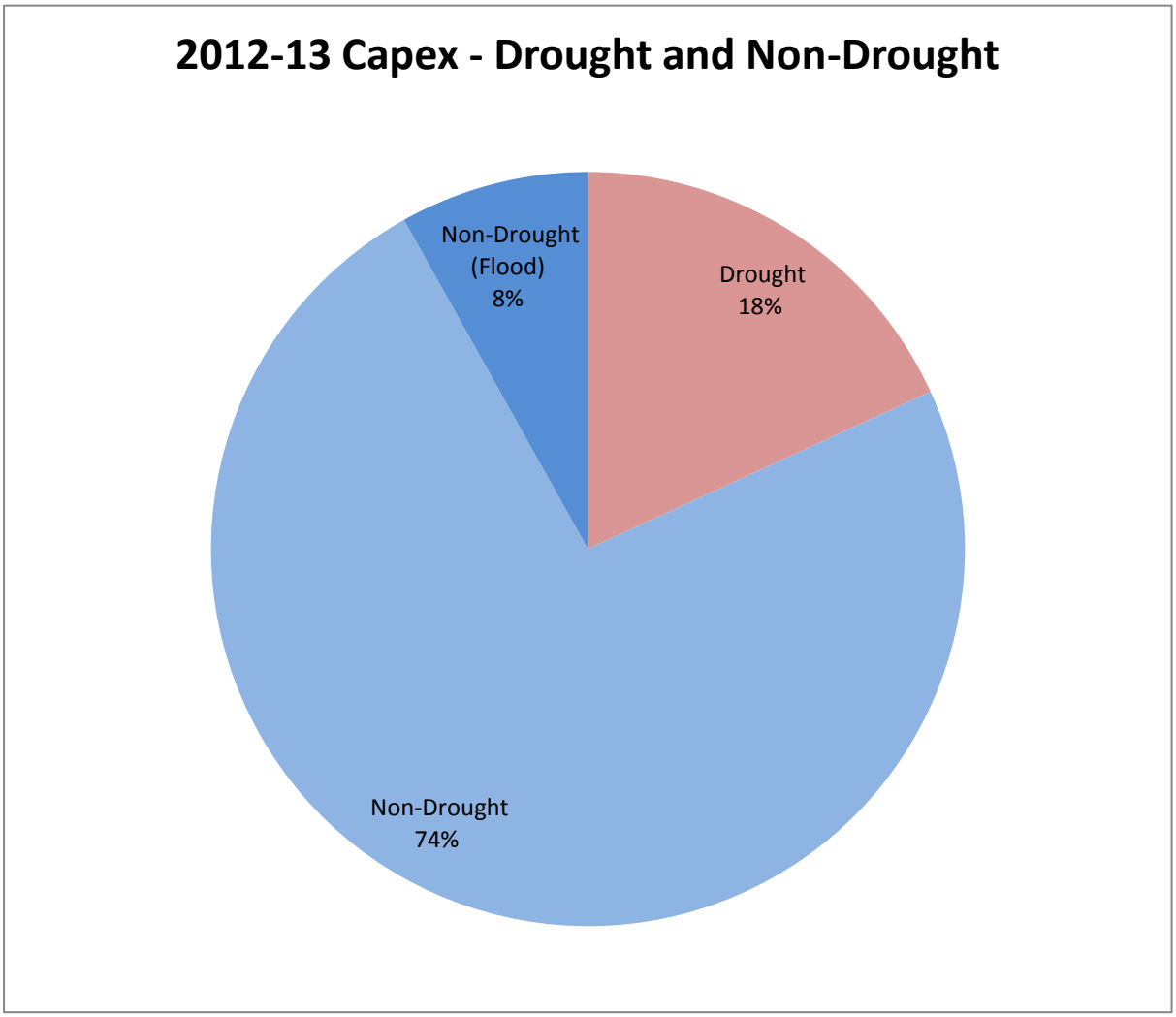
Capital expenditure for each type of project is discussed in more detail in the following sections.

Drought, non-drought and flood-related capex

- In terms of drought and flood expenditure, the budgeted capital expenditure for 2012-13 includes:
- drought capex of $23.2M; and
- non-drought capex of $105.1M, (which includes flood-related capex of $10.4M).

Figure 7.9 below illustrates the proportions of drought capex, non-drought capex and flood-related capex, by dollar value, in the budgeted capital expenditure for 2012-13.

***Figure 7.9* – 2012-13 drought capex vs non-drought capex (% of total $)**



Drought capex

The $23.3M of drought capex is predominantly comprised of $19.0M in compensation payments for the WCRWS, $2.0M relating to the Wyaralong Dam WTP (including $1.0M in preliminary design works, $0.7M in capitalised interest and $0.3M in land and legal costs), $1.5M in defects period works at Hinze Dam following the recent dam wall raising and $0.8M for post commissioning works at Wyaralong Dam.

Flood-related capex

The $10.4M of flood-related capex is predominantly comprised of $9.8M in flood repairs and $0.5M of flood resilience works. The flood repair works needed are subject to outstanding

insurance claims and, if the insurance claims are successful, the net proceeds will be offset against expenditure to the benefit of the WGM.

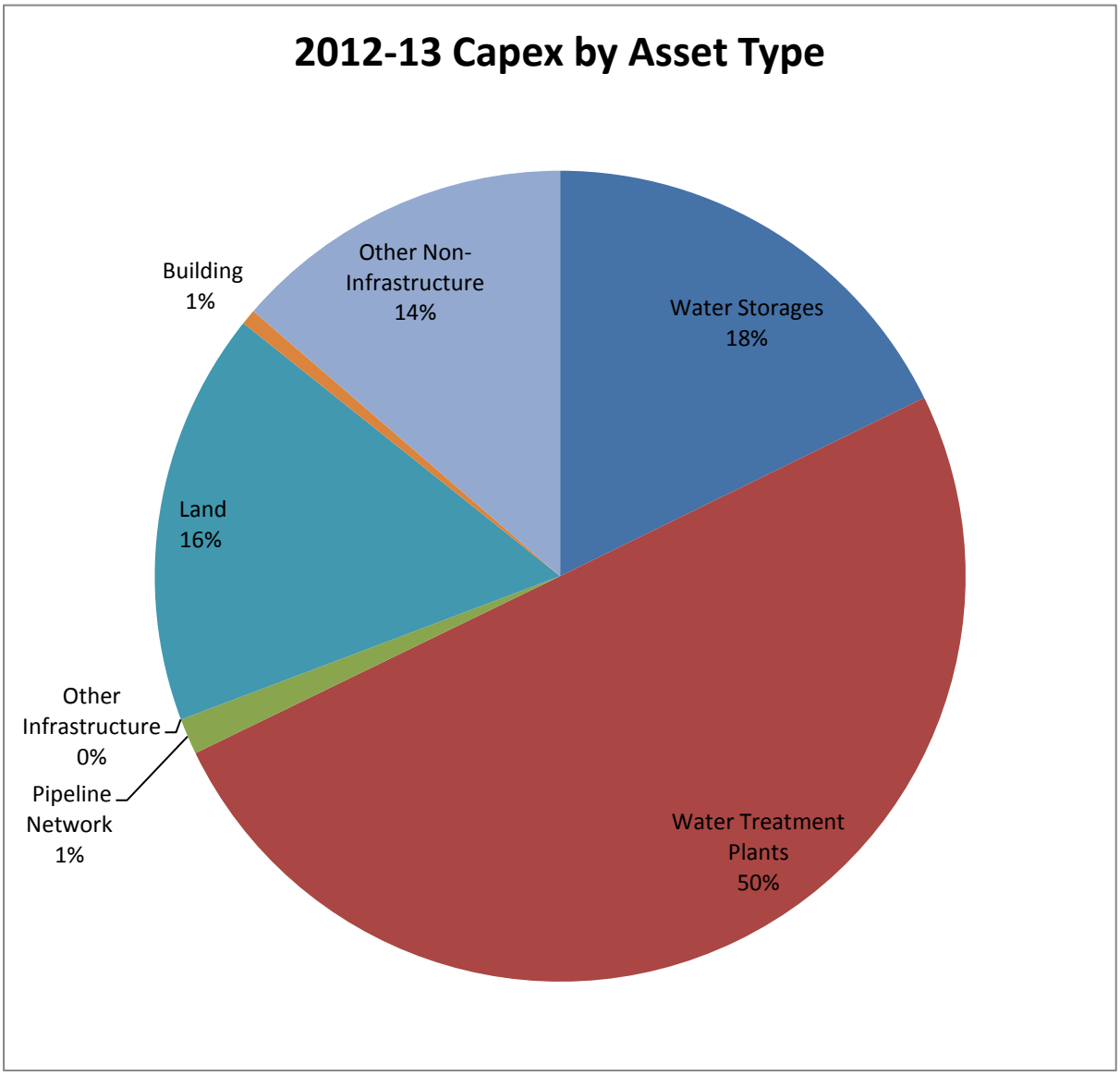
Infrastructure and non-infrastructure capex, by asset type

Figure 7.10 below illustrates the proportions of capex for 2012-13 directed towards WTPs, water storages, the pipeline network, other infrastructure assets and non-infrastructure assets including land and buildings.

If assessed by asset type, 50% of Seqwater's budgeted capital expenditure for 2012-13, by dollar value, is directed towards WTPs, including the GCDP and the AWTPs in the WCRWS.

- A further 18% of the capex programme, by value, is directed towards water storages, including Seqwater's dams, weirs, and off-stream storages, while 1% is directed towards the Pipeline Network.

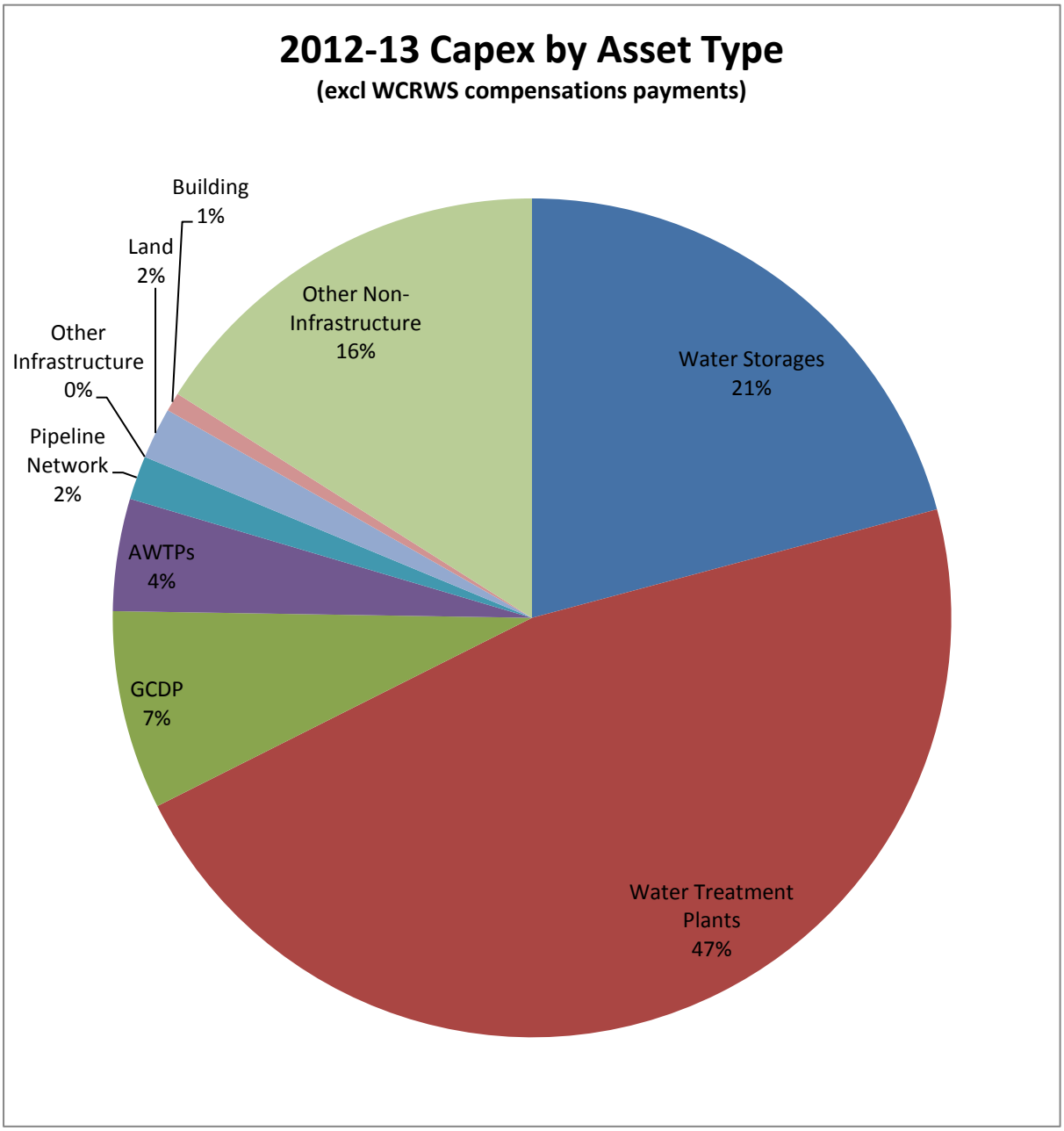
***Figure 7.10* – 2012-13 infrastructure and non-infrastructure capex (% of total $)**



- The remaining 31% of the capex programme is directed towards non-infrastructure assets.

However, note that non-infrastructure capex is dominated by the $19.0M of compensation payments relating to easements for the WCRWS. If this large, non-ongoing item is removed from the capex programme, as illustrated in Figure 7.11 below, it removes the distorting effects of the compensation payments and gives a clearer indication of the breakdown of the capex programme by asset type.

***Figure 7.11* – 2012-13 capex by asset type, excl WCRWS compensation payments**



After removing that single major item from the analysis, it is clear that Seqwater's capital expenditure program is primarily directed at WTPs. Note that Figure 7.11 above also separates the GCDP and the AWTPs out from other WTPs. Some 58% of the total capex programme, by value, is directed towards water treatment facilities, including 7% to the GCDP and 4% to the AWTPs in the WCRWS, and the remaining 47% towards Seqwater's raw water treatment plants. This reflects the mechanical nature of the water treatment assets and the relatively higher need for regular upgrades and expenditure on mechanical assets.

Higher levels of upgrades and expenditure tend not to be needed for other assets such as dams, irrigation schemes and natural assets. As illustrated in Figure 7.11 above, after excluding the WCRWS compensation payments, 21% of Seqwater's capital expenditure program for 2012-13, by value, is directed at water storages. This includes dams, weirs and off-stream storages. This does not include capital expenditure on catchment land, however, which is generally is included in the land component of non-infrastructure expenditure.

Other non-infrastructure projects, which account for 16% of Seqwater's capital expenditure budget in 2012-13, by value, after excluding the WCRWS compensation payments, is predominantly comprised of:

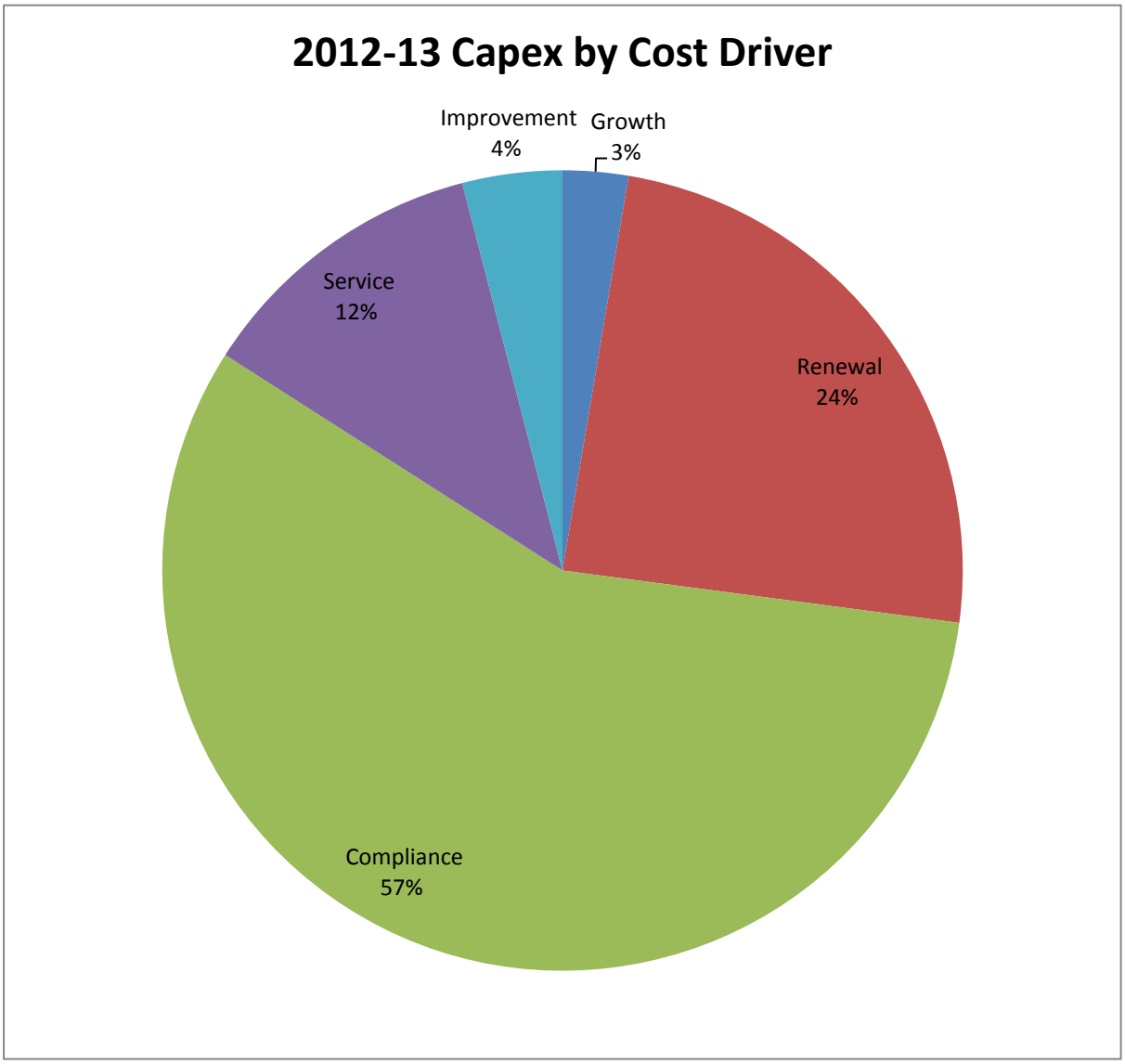
- $2.4M in network and server infrastructure and other ICT projects, plant and equipment;
- $2.3M for HR and payroll software;
- $2.0M for other software including GIS software;
- $1.9M for SCADA implementation and related projects;
- $1.2M for a new document and records management system;
- $0.9M for online instrumentation works;
- $0.7M for water quality instrumentation; and
- $1.3M in total for renewals and other minor works relating to non-infrastructure assets.

Capital expenditure by cost driver

As illustrated in Table 7.12 below, which shows the profile of Seqwater's program of capital expenditure for 2012-13 by cost driver, the major focus of the capex program is meeting Seqwater's legislative and contractual compliance requirements.

This focus is explained in Chapter 5 on Service & Compliance, and is consistent with the focus for the previous year in 2011-12.

***Figure 7.12* – Seqwater's 2012-13 capex by cost driver (% of total $)**



As illustrated above, 57% of Seqwater's capex budget for 2012-13, by value, is directed to projects where the primary driver of business needs and costs is related to Seqwater meeting its compliance obligations.

The other significant drivers of Seqwater's capex programme in 2012-13 are Renewal, accounting for 24% of the total capex by value, and Service, accounting for 12% of the total capex programme.

The limited number of growth and improvement projects is reflective of Seqwater's asset program, in that:

- a major focus is still bringing the suite of assets up to consistent standards to meet existing and ongoing supply requirements;
- major growth and water security projects have recently been completed (for example, the recent raising of the Hinze Dam and the Ewen Maddock Dam WTP) so there is less immediate need for additional capacity; and
- it is expected that a larger focus on growth will occur in future years as longer term regional planning processes become embedded following the recent amendments to the SOP.

The cost driver profile of Seqwater's capex programme will continue to change over time, as potential issues and risks relating to non-compliance are fully quantified and addressed, and the focus of the program can move to service and growth, particularly where increasing demand and population growth necessitates enhanced water treatment plant capacities.

Critical spares

Unlike the approach taken in last year's submission, Seqwater is not making separate provision for additional critical spares in 2012-13. This issue is discussed in more detail in Chapter 8 on the RAB, under the section discussing working capital.

Other notes on the capex programme

This capital expenditure programme, as presented, reflects Seqwater's understanding of asset requirements, service needs, and conditions and risk factors at the time of submission.

The full capital expenditure programme for 2012-13 is outlined in Seqwater's Information Return to the QCA and as such is not duplicated within this submission. However, in section 7.5 below there are explanations relating to some major projects within Seqwater's program of current and planned capital expenditure. These explanations include multi-year projects that are not due to be completed within 2012-13, but nonetheless involve significant expenditure within that financial year. Seqwater would appreciate regulatory guidance at least in relation to the prudency of these projects.

It is also expected, consistent with the previous regulatory approach, that the QCA and its consultants will seek to examine a sample of projects of their choosing in more detail, at which time Seqwater will make available more detailed background reports and businesses cases for those projects.

7.5 Project summaries for major projects

The following tables provide further detail on significant capital projects in 2012-13:

Project	**Lake MacDonald Dam Spillway upgrade.**
Scope	Regulated AFC project. Upgrade dam due to safety issues. New 200m wide auxiliary spillway, existing spillway improved, foundation treatment and new filter zone and earth fill on embankment.
Timing	2011/12 – 2015/16 (estimated)
Driver	Compliance
Total Budget	$25.75M
2012/13 Budget	$1M

Project	**Ewen Maddock Dam**
Scope	Stage 1 Safety Upgrade (Regulated AFC project.) installation of pressure relief wells; construct a 1m high weighting berm on the downstream toe area; with the sole purpose of reducing the risk of dam failure through piping of the embankment.
Timing	2011/12 – 2013/14
Driver	Compliance
Total Budget	$3.1M
2012/13 Budget	$2M

Project	**Maroon Dam - Stage 2**
Scope	Upgrade of Spillway (Regulated AFC project.) increase the flood capacity of Maroon Dam is to raise the crest of the dam 1.5m using a concrete parapet wall
Timing	2012/13 – 2015/16
Driver	Compliance
Total Budget	$21.2M
2012/13 Budget	$0.2M

Project	**Moogerah Dam**
Scope	Regulated AFC project. Implementation of the Natural Asset Management Plan (NAMP) many small works to improve the water source.
Timing	2011/12 – 2015/16
Driver	Compliance
Total Budget	$42.6M
2012/13 Budget	$1.2M

Project	**Six locations - Wivenhoe (2 packages), Somerset Dam, Wilson Weir, Mt Crosby, Borumba Dam**
Scope	Regulated AFC project. Post flood recondition of damaged assets.
Timing	2011/12 – 2013/14
Driver	Compliance
Total Budget	$16.7M
2012/13 Budget	$9.8M

Project	**Beaudesert WTP Upgrade works.**
Scope	Upgrade works required at WTP, including raw water infrastructure.
Timing	2011/12 – 2014/15
Driver	Growth
Total Budget	$9.1M
2012/13 Budget	$2.5M

Project	**Canungra Water Treatment Storage**
Scope	Population growth in Canungra area, more high priority water from Canungra Creek, off stream storage required.
Timing	2011/12 – 2015/16
Driver	Growth
Total Budget	$4.4M
2012/13 Budget	$0.5M

Project	**Capalaba WTP Upgrade works.**
Scope	Upgrade works required at WTP
Timing	2011/12 – 2014/15
Driver	Compliance
Total Budget	$10.0M
2012/13 Budget	$3.0M

Project	**Image Flat WTP Upgrade works.**
Scope	Sludge Handling & Chemical Dosing
Timing	2011/12 – 2014/15
Driver	Compliance
Total Budget	$11.0M
2012/13 Budget	$1.0M

Project	**Landers Shute WTP Upgrade works.**
Scope	lime/caustic upgrade to maintain safe drinking water standard
Timing	2011/12 – 2013/14
Driver	Compliance
Total Budget	$3.0M
2012/13 Budget	$0.75M

Project	**Lowood WTP Upgrade works.**
Scope	Sludge handling improvements and other works required at WTP.
Timing	2011/12 – 2013/14
Driver	Compliance
Total Budget	$3.1M
2012/13 Budget	$2.0M

Project	**Molendinar WTP upgrade works.**
Scope	Backwash Pump
Timing	2012/13 – 2014/15
Driver	Compliance
Total Budget	$11.7M
2012/13 Budget	$2.0M

Project	**Mudgeeraba WTP upgrade works.**
Scope	20ML Storage
Timing	2012/13 – 2014/15
Driver	Compliance
Total Budget	$11.2M
2012/13 Budget	$2.0M

Project	**North Pine WTP upgrade works.**
Scope	Chemical Dosing – PH Correction to increase water quality during high rainfall and flood events
Timing	2012/13 – 2014/15
Driver	Compliance
Total Budget	$4.2M
2012/13 Budget	$1.0M

Project	**North Pine WTP upgrade works.**
Scope	Sludge Handling upgrade – improve sludge handling to meet regulatory requirements
Timing	2012/13 – 2014/15
Driver	Compliance
Total Budget	$3.7M
2012/13 Budget	$0.5M

Project	**North Stradbroke Island WTP upgrade works.**
Scope	Lime System & Sludge Lagoon
Timing	2012/13 – 2013/14
Driver	Compliance
Total Budget	$4.1M
2012/13 Budget	$1.1M

Project	**South Mclean WTP Upgrade works.**
Scope	Upgrade works required at WTP – QWC recommended improvements
Timing	2011/12 – 2013/14
Driver	Compliance
Total Budget	$4.3M
2012/13 Budget	$2.2M

Project	**Wyaralong WTP Upgrade works.**
Scope	Preliminary Design for New Plant
Timing	2012/13 – 2013/14
Driver	Compliance
Total Budget	$4.3M
2012/13 Budget	$2.0M

Project	**SCADA Strategy Implementation**
Scope	Implementation of SCADA strategy across grid. Upgrade to computer management of many WTP's testing, reporting and operation.
Timing	2011/12 – 2016/17
Driver	Compliance
Total Budget	$35.8M
2012/13 Budget	$0.8M

Project	**WTP Decommissioning – Albert River, Aratula, Maleny, Toogoolowah and Woorim**
Scope	Decommission 5 WTP due to surplus to requirements
Timing	Ongoing
Driver	Improvement
Total Budget	$6.9M
2012/13 Budget	$0.9M

Project	**Gold Coast Desalination Plant – pressure threaded connections**
Scope	The design, supply and installation of materials and fittings to replace a large percentage of threaded connections that are experiencing corrosion within the high and medium pressure areas of the Desalination plant. There is potential risk to personnel and equipment should there be failure (from these connections) during normal plant operation.
Timing	2012-13
Driver	Compliance
Total Budget	$2.3M
2012/13 Budget	$2.3M

Project	**Gold Coast Desalination Plant - replacements**
Scope	The supply and installation of new RO membranes to continue to meet the contractual water quality requirements.
Timing	2012-13
Driver	Renewal
Total Budget	$3.8M
2012/13 Budget	$3.8M

For the purposes of this section, Seqwater has defined significant projects to be those for which the total expenditure will exceed $2M, and for which expenditure will be incurred in 2012-13.

More detailed background information relating to these projects, including cost forecasts, planning reports and business cases, can be provided by Seqwater to the QCA upon request.

Chapter 8 – Regulated Asset Base

The Direction Notice states that the QCA is to accept the opening Regulated Asset Base (RAB) value as at 1 July, 2011 as advised by the Price Regulator and are not to be reviewed or subject to optimisation.

The Information Requirements also state that the QCA intends to source July 2011 RAB estimates from the Price Regulator, and will roll forward the RAB to 1 July 2012 taking into account capital expenditure, depreciation, disposals and asset inflation over the 2011-12 period.

Seqwater received advice from the Price Regulator of the RAB as at 1 July 2011. The final total opening RAB for Seqwater is $5.08B, (Seqwater $2.16B plus WaterSecure $2.92B).

8.1 Disaggregation of the RAB

The 2012-13 Direction Notice is silent regarding the disaggregation of the RAB between assets providing services to the WGM.

The 2011-12 Direction Notice stated that the QCA may disaggregate the RAB with the agreement of the GSPs. In its final decision for 2011-12 GSCs, the QCA did not disaggregate the opening RAB to separate land from other assets for Seqwater. However, for WaterSecure assets, land values were separated in the submission and therefore QCA have assessed the RAB on that basis.

Seqwater does not propose to disaggregate the RAB for 2012-13 to individual assets or asset types.

8.2 Allocation of the RAB

Seqwater anticipates that the opening RAB at 1 July 2012 will be based on the opening RAB for 2011-12, adjusted for capital expenditure, regulatory depreciation, disposals and indexation.

The RAB does not include the office building at 240 Margaret Street which was valued separately to the compensation cost for water assets from SEQWater Corporation, as set out in the transfer notice made under the *South East Queensland Water (Restructuring) Act 2007*. The QCA stated in its final 2011-12 decision that it did not intend to subtract the value of the 240 Margaret Street from the RAB upon its potential sale.

The QCA did not allocate any amount of the RAB values in the 2011-12 GSCs. This accords with Seqwater's understanding that the RAB as advised by the Price Regulator is to be applied in total for GSCs, as has been the practice since GSCs were first established in 2008-09.

8.3 Composition of the opening RAB

Capitalised versus capital expenditure

Seqwater notes that the RAB adjustment for capital expenditure needs to explicitly deal with the difference between capital expenditure for the year, and expenditure that is capitalised during the year as the two amounts will be different.

For each of the 2008-09, 2009-10 and 2010-11 financial years, the QWC included the capital works program actual expenditure on nearly all non-drought projects in the RAB calculation. Accordingly, Seqwater anticipates that the RAB at July 2011 to be advised by the Price Regulator incorporates actual expenditure to date on multi-year non-drought projects.

Accordingly, when capitalising non-drought projects that commenced prior to 30 June 2011, care is required to not include past amounts already included in the RAB. Seqwater has therefore excluded past non-drought capex incurred prior to 30 June 2011 in advising of the capital expenditure for 2011-12, based on the above assumption about the composition of the RAB advised by the Price Regulator.

In the 2011-12 GSCs, QCA had noted in its Report that WaterSecure's submission included two capital expenditure items and these are the $30.1M allocation for land for the WCRW Scheme and $6.1M for the Gibson Island Advanced Water Treatment Plant (AWTP). QCA further noted that these items relate to final completion of drought assets that must be rolled into the RAB at project cost.

These items were not expended at 30 June 2011 and were not included in Seqwater's information provided to the Price Regulator for the RAB. Consequently, Seqwater anticipates the Price Regulator will exclude these items when providing the final opening 1 July 2011 RAB to the QCA.

8.4 Other RAB issues

Hinze Dam Upgrade – likely adjustment to 1 July 2011 RAB.

The 2011-12 GSCs were set on the assumption that the Hinze Dam upgrade project would be included in the opening RAB at 1 July 2011 included the Hinze Dam project.

However the Hinze Dam project has been delayed and was not completed until 23 November 2011 with a total completion costs of $448.88M including capitalised interest of $57.8M and land value of $4.21M

Seqwater anticipates that RAB advised by the Price Regulator at 1 July 2011 will therefore exclude the Hinze Dam Upgrade.

An additional $ 10.2M, including capitalised interest of $0.230M, has been forecast for post-commissioning works during 2011-12.

Landers Shute Legal Proceedings

In 2008-09, Seqwater made a payment of $11.16M to a court fund relating to a legal dispute concerning the construction of the Landers Shute bulk main. This amount was added to the RAB by the QWC and therefore was included in the calculation of capital charge since 2009-10. The 2009-10 GSC determination has noted that if Seqwater recovers the $11.16M court payment, a retrospective adjustment will be made to the capital charges.

It is understood that this $11.6M has been carried forward into the current RAB.

As at 30 June 2011, Seqwater financial statements has noted that the legal proceedings is still unresolved. Seqwater proposes that the RAB is adjusted to reflect the actual outcomes of these proceedings against the amount previously included in the RAB.

8.5 Working capital

Seqwater has calculated the following values for each of the parameters in the working capital calculation:

- Annual accounts receivable – $677,062,000
- Average debtor days - 45
- Annual accounts payable – $337,439,000
- Average creditor days – 30
- Critical spares - $912,000

Seqwater has not included any additional critical spares expenditure in the 2012-13 budget, and accordingly the critical spares amount remains the same as for 2011-12.

Chapter 9 – Rate of Return & Weighted Average Cost of Capital

9.1 Rate of return

The Direction Notice states that the rate of return on non-drought assets and post commissioning expenditure on drought assets is to be equal to a Weighted Average Cost of Capital (WACC), calculated on a pre-tax nominal basis.

The Direction Notice also specifies a number of the parameters to be used in determining the WACC, as set out in Figure 9.1 below.

***Figure 9.1* – WACC parameters**

Parameter	Value
Debt/equity gearing ratio	50/50
Cost of debt	Equal to the forecast cost of debt (including administration and capital market charges and the Competitive Neutrality Fee) for each GSP as advised by QTC
Risk free rate	As advised by QTC
Market risk premium	6%
Equity beta	0.68
Gamma	0.5
Tax rate	30%

Accordingly, the WACC should be indexed to the specific QTC book rate for Seqwater's debt pool, recalculated at 1 July 2012, and then recalculated again on each occasion that the cost of debt changes during 2012-13.

The Information Requirements calls for Seqwater to provide details of its forecast cost of debt, allocated between asset types or according to timing of debt refinancing, where applicable.[19] The QCA is to confirm this information with QTC.

[19] QCA, SEQ Grid Service Charges 2012-13 Information Requirements, 2012, p 11.

Seqwater has obtained this forecast from QTC during January 2012, which is set out below in Figures 9.2 and 9.3 below:

***Figure 9.2* – Forecast cost of debt – non-drought assets**

Non-Drought Asset	Estimated cost of debt 1 July 2012 – 30 June 2013
Fluoridation projects	7.27%
Post 1 July 2008	8.56%
Pre 1 July 2008 (Aquagen and SEQWater Corporation compensation payment)	7.74%
Pre 1 July 2008 (SEQWater loan transfer)	7.31%

Note: the weighted average is used to derive value for the WACC. Seqwater is in the process of obtaining this information.

***Figure 9.3* – Forecast cost of debt – drought assets**

Drought Asset	Estimated cost of debt 1 July 2012 – 30 June 2013
Brisbane Aquifer	6.35%
Bribie Island Aquifer	6.16%
Enogerra WTP	6.30%
Ewen Maddock WTP	6.30%
Cedar Grove Weir	6.61%
Bromelton offstream Storage	6.61%
Esk -Wivenhoe Pipeline	6.47%
Coominya Pipeline	6.46%
Hinze Dam Stage 3	6.08%
Wyaralong WTP	6.02%
Wyaralong Dam	6.08%
Wyaralong Dam Road	6.13%
Gold Coast Desalination Plant	6.35%
Purified Recycled Water	6.89%
Purified Recycled Water 1A	6.34%

Note: rates exclude competitive neutrality fee and include administration and capital market charges.

9.2 2011-12 changes to actual cost of debt

The Information Requirements call for Seqwater to provide information about changes in the actual cost of debt during 2011-12. This is required to adjust 2011-12 GSCs to the actual cost of debt. Seqwater has obtained this forecast from QTC during January 2012, which is set out in Figures 9.4 and 9.5 below.

***Figure 9.4* – Forecast cost of debt – non-drought assets**

Non Drought	Estimate GSC 2011-12	QTC Forecast 2011-12
Fluoridation Projects	7.33%	7.33%
Post 1 July 2008	8.24%	7.36%
Pre 1 July 2008 (Aquagen and SEQWater Corporation compensation payment)	7.89%	7.36%
Pre 1 July 2008 (SEQWater loan transfer)	7.37%	7.68%

***Figure 9.5* – Forecast cost of debt – drought assets**

Drought asset	Estimate GSC 2011-12	QTC Forecast 2011-12
Brisbane Aquifer	6.44%	6.44%
Bribie Island Aquifer	6.21%	6.21%
Enogerra WTP	6.38%	6.38%
Ewen Maddock WTP	6.38%	6.38%
Cedar Grove Weir	6.73%	6.73%
Bromelton offstream Storage	6.73%	6.73%
Esk -Wivenhoe Pipeline	6.58%	6.58%
Coominya Pipeline	6.58%	6.58%
Hinze Dam Stage 3	6.20%	6.20%
Wyaralong WTP	6.07%	6.07%
Wyaralong Dam	6.13%	6.13%
Wyaralong Dam Road	NA	6.13%
Gold Coast Desalination Plant	6.52%	6.52%
Purified Recycled Water	6.52%	6.52%
Purified Recycled Water 1A	6.52%	6.52%

Note: rates exclude competitive neutrality fee and include administration and capital market charges.

Chapter 10 – Fixed Operating Costs

The Direction Notice requires the QCA to conduct a detailed review of fixed and variable operating costs, including undertaking an appropriate benchmark review to provide advice on potential efficiency improvements and business savings based on good industry practice.

This section sets out Seqwater's proposed Fixed Operating Charge for 2012-13, and provides a comparison to 2011-12. It also discusses the impacts of the merger on fixed costs.

10.1 Overview and comparison to 2011-12 GSCs

Seqwater proposes fixed operating costs for 2012-13 GSCs totalling $236.0M,[20] as well as revenue offsets totalling $4.5M.

For clarity, consistent with past practice, the fixed operating costs include the fixed operating costs of all assets providing grid services, as well as recreation facilities and the full costs to supply irrigation services in all water supply schemes on the basis that irrigation and other revenues are offset against GSCs.

The 2012-13 costs also include certain items previously considered allowable costs (for example, the QCA fee) or variable costs (some energy costs are now re-classified as fixed rather than variable). The fixed operating costs do not include the operating costs of non-regulated activities, including hydro-electricity generation and the landlord costs associated with the ownership of the building at 240 Margaret St.[21]

Figure 10.1 below provides a comparison to 2011-12 GSCs, in nominal terms.

***Figure 10.1* – Comparison Fixed Operating Charge to 2011-12 ($nominal)**

	$M
2011-12 Fixed Operating Charge (GSCs)	219.5
2012-13 Proposed Fixed Operating Charge	236.0

This shows a nominal increase of $16.5M from the 2011-12 GSCs. However, a number of adjustments are required to make proper comparisons between years, the first being to adjust 2011-12 GSCs to the same terms. Figure 10.2 below presents the 2011-12 Fixed Operating Charge in $2013,[22] and shows a real increase (in $2013) of $11.0M, or 4.9%.

[20] Subject to the final energy procurement contracts for the WCRWS and GCDP in the event those contracts result in a change the composition of fixed and variable energy costs.

[21] The revenues from these assets are retained by Seqwater as unregulated revenues.

[22] Assuming inflation at 2.5%.

***Figure 10.2* – Comparison Fixed Operating Charge to 2011-12 ($2013)**

	$M
2011-12 Fixed Operating Charge (GSCs)	225.0
2012-13 Proposed Fixed Operating Costs	236.0

The proposed Fixed Operating Charge for 2012-13 also includes costs that were previously classified as Allowable Costs or Variable costs for 2011-12, as well as one-off increases that are largely outside Seqwater's control. These adjustments total $4.6M.

After adjusting for these impacts, the Fixed Operating Costs for 2012-13 are $6.4M higher than the 2011-12 GSCs, or 2.8%.

Figure 10.3 below sets out these adjustments required to compare to 2011-12 GSCs on a like-for-like basis.

***Figure 10.3* – Comparative Fixed Operating Charge to 2011-12 GSCs**

		$M
2012-13 Proposed Fixed Operating Charge		236.0
Less costs previously treated as allowable costs or variable costs, and now in fixed	QCA Levy	(1.4)
	GCDP electricity costs now correctly re-classified as fixed	(1.2)
Plus costs considered fixed for 2011-12 GSCs and treated as variable for 2012-13 GSCs	[redacted]	1.7
Less one-off cost increases outside Seqwater control that are forecast for 2012-13 but not included in 2011-12 GSCs	New assets (Wyaralong and Hinze dams)	(1.2)
	Stage Government Waste Levy and additional levies for trade waste	(1.3)
	Implementing Flood Commission of Inquiry outcomes (known to date)	(1.2)
Total adjustments (net)		**(4.6)**
2012-13 Fixed Operating Costs adjusted for cost reclassification and one-off increases (comparable to 2011-12)		**231.4**
2011-12 Fixed Operating Charge (GSC) adjusted to $2013		**225.0**
Difference to 2011-12 GSCs (Fixed Operating Charge)		**6.4**
		2.8%

This shows that Seqwater has managed to maintain its fixed cost base to 2.8% of the 2011-12 Fixed Operating Charge in comparable (real) terms, despite a number of above-inflation

increases to the cost of inputs, which together account for $11.8M or 5.0% of the 2012-13 GSCs being:

- labour cost increases in accordance with the EBA and staff contracts ($3.8M);
- increases to contractor rates for maintenance services ($1.0M) [23];
- increases to insurance premiums ($1.8M);
- increasing costs for water quality monitoring and testing ($1.0M); and
- increase in the minor works and renewals (implementation phase) that has resulted in an extensive program of works in the resilience and refurbishment area. The resilience works stem from the 2011 flood event ($4.2M).

Seqwater also faces a number of cost increases due to changes in compliance and regulatory obligations. The examples below, which are not a complete list of new compliance-related costs, total $6.1M or 2.6% of the 2012-13 GSCs:

- increasing costs associated with implementing a more robust environmental compliance framework ($1.2M);
- additional asset management costs, largely driven by changes to the System Operating Plan (SOP) which requires Seqwater to produce a Water Supply Asset Plan ($2.2M);
- new initiatives to mitigate water quality risks in catchments identified through Seqwater's Natural Asset Management Plans ($2.7M).

The forecast fixed operating costs also incorporate a number of cost saving initiatives for the 2012-13 year which partially offset these cost increases. These include replacing staff contractors with full time employees (refer below), savings arising from negotiating changes to the payment of rates under the Tax Equivalence Regime (saving $2.2M) and savings arising from the implementation of a handover strategy and close-out strategy in relation to WCRWS and GCDP (saving $9.1M).

[23] This includes some additional costs for new assets transferred to Seqwater.

Cost savings – conversion of staff contractors to FTEs

As set out above, employee costs will increase by $3.8M due to increases under the EBA (including a 3.5% annual increase plus increments) and staff contracts. An additional $4.5M is provided for some 62.5 FTEs. Many of these additional FTEs have been created to replace staff contractor and agency costs, generating savings. For example,

1. Procurement, where 7 contract or agency staff are replaced by 5 full time positions;

2. Water Delivery Group, where 3 additional FTEs have been established to replace agency or contractor staff performing administrative and technical functions

3. ICT Services, where 16.5 additional FTEs have been created to meet growing business needs. The additional costs are more than offset by reducing staff contractors.

10.2 Cost structure - direct and non-direct functions

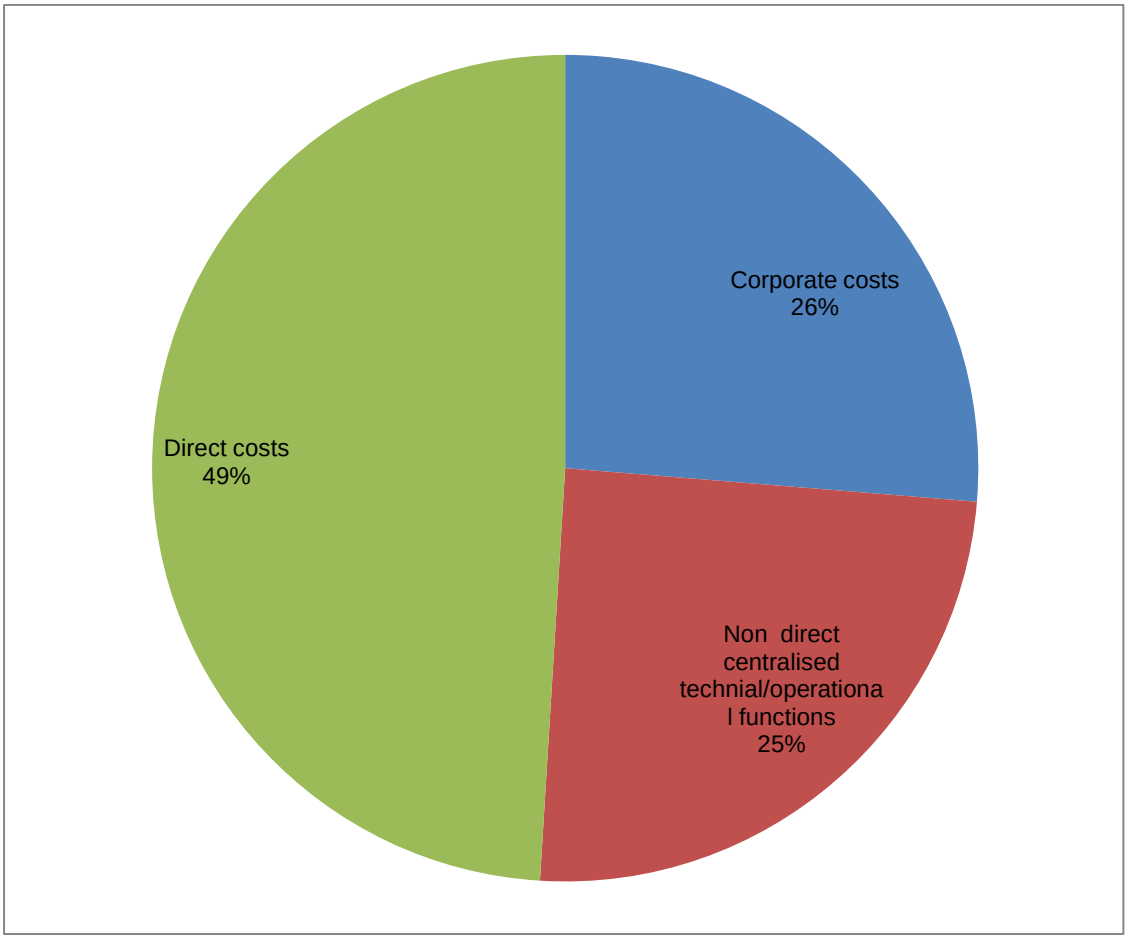
The proposed fixed operating costs of $236.0M are presented below in terms of direct and non-direct functions, with non-direct functions classified as corporate and centralised technical services. Figure 10.4 below presents the total fixed operating costs by these classifications:

***Figure 10.4* – Direct and non-direct costs – 2012-13 proposed Fixed Operating Costs**

Item	$M	%
Corporate costs	62.1	26
Non-direct centralised technical and operational functions	58.2	25
Direct costs	115.7	49
TOTAL	**236.0**	

Figure 10.5 below shows the composition of fixed operating costs in these terms.

***Figure 10.5* – Composition of 2012-13 fixed operating costs ($2013)**



The following sections examine direct, corporate and centralised technical/operational costs.

Direct costs

Direct costs are those costs that have been budgeted at the individual asset level. The direct fixed costs for 2012-13 for the largest 10 WTPs and storages (by cost) are presented in Figure 10.6 below, along with the GCDP and WCRWS.

Figure 10.6 – Direct Costs 2012-13 ($2013)

	Employee costs ($000)	Contractors - Veolia ($000)	Contractors - Other ($000)	Rates ($000)	Fixed Energy ($000)	Other Supplies & Services ($000)	TOTAL ($000)
Dams	**8,381**	**-**	**-**	**-**	**658**	**19,285**	**28,323**
Wivenhoe Dam	2,214	-	-	-	240	6,097	**8,552**
Hinze Dam	900	-	-	-	20	1,721	**2,641**
North Pine Dam	993	-	-	-	50	1,386	**2,429**
Somerset Dam	767	-	-	-	23	1,402	**2,191**
Wyaralong Dam	658	-	-	-	-	1,061	**1,719**
Ewen Maddock Dam	667	-	-	-	-	768	**1,435**
Leslie Harrison Dam	219	-	-	-	-	806	**1,025**
Moogerah Dam	294	-	-	-	6	717	**1,017**
Lake MacDonald aka Six Mile	157	-	-	-	-	510	**667**
Baroon Pocket Dam	191	-	-	-	3	356	**549**
Other Dams	1,322	-	-	-	317	4,459	**6,098**
WTPs	**15,499**	**-**	**138**	**72**	**2,200**	**30,785**	**48,693**
Mt Crosby Eastbank WTP	3,217	-	-	-	1,296	3,037	**7,551**
Molendinar WTP	1,774	-	66	-	30	2,983	**4,853**
Landers Shute WTP	896	-	-	-	11	4,842	**5,749**
North Pine WTP	1,267	-	-	-	140	1,735	**3,142**
Mudgeeraba WTP	592	-	69	-	30	1,956	**2,647**
Mt Crosby Westbank WTP	843	-	-	-	229	1,997	**3,069**
North Stradbroke Island WTP	486	-	-	-	186	1,724	**2,396**
Noosa WTP	0	-	-	-	-	1,866	**1,866**
Capalaba WTP	707	-	-	16	10	1,107	**1,839**
Petrie WTP	409	-	-	-	3	1,179	**1,590**
Other WTPs	5,309	-	3	56	265	8,358	**13,990**
WCRWS	**-**	**21,221**	**-**	**-**	**-**	**999**	**22,219**
Bundamba	-	6,285	-	-	-	539	**6,825**
Gibson Island	-	1,890	-	-	-	275	**2,165**
Luggage Point	-	5,893	-	-	-	184	**6,077**
Network	-	7,153	-	-	-	-	**7,153**
Gold Coast Desal Plant	-	13,037	-	-	2,792	488	**16,317**
TOTAL	**23,880**	**34,258**	**138**	**72**	**5,650**	**51,556**	**115,552**

At dams and WTPs, some direct costs have increased, including:

- increases in labour costs, including $2.8M in annual adjustments to wage rates under the EBA and a further $1.3M for new positions, including:
    - two additional FTEs are required to improve inventory/stores management and enhance maintenance planning;
    - one FTE to provide better supervision at WTPs for staff and work management;
    - two FTEs required to meet growing environmental obligations;
    - one FTE required at the recently-transferred Wyaralong Dam; and
    - the establishment of 10 trainee positions to address Seqwater's aging workforce and skills shortages in particular areas.
- increases to maintenance costs due to expected increases in contractor rates for 2012-13 arising from a new tender ($1.0M). Seqwater's approach to asset maintenance is set out in the box below;
- increases in waste levies and trade waste costs ($1.3M); and
- non-labour cost increases arising from the transfer of Wyaralong Dam and completion of Hinze Dam, including maintenance and other costs ($0.7M)

Evolution of Seqwater's maintenance practices

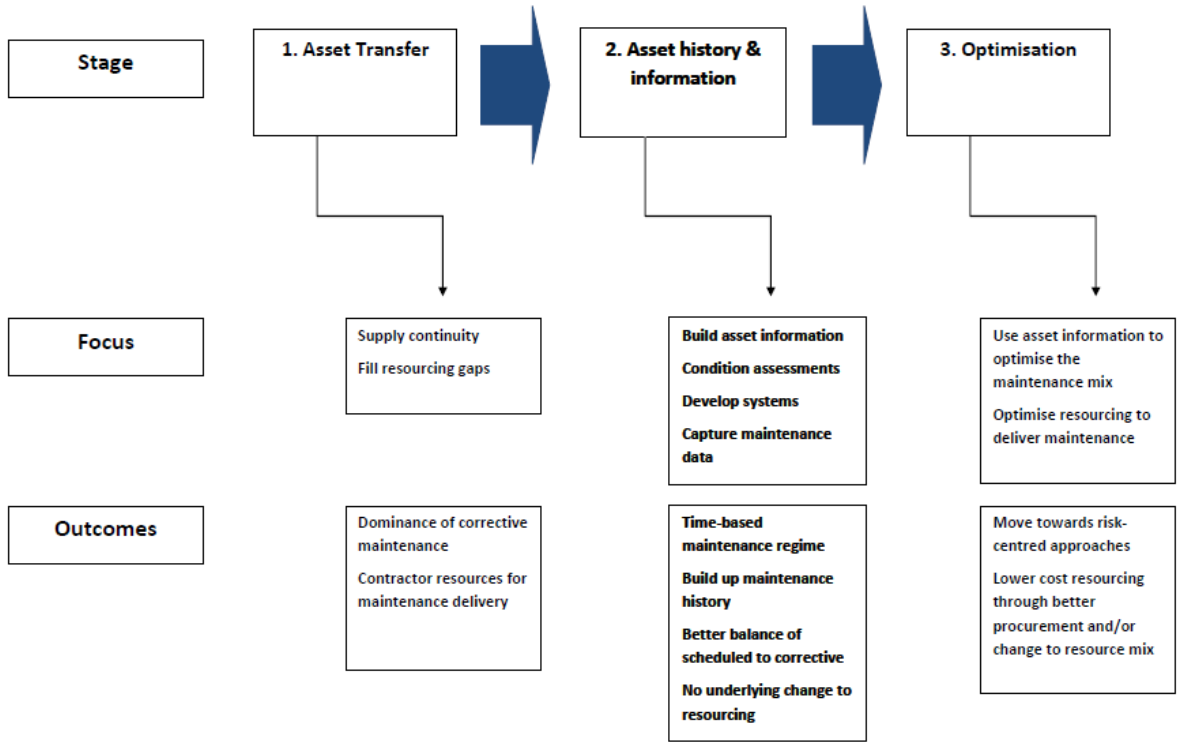
In 2008-09, Seqwater was transferred assets from a large number of council-owned entities, SEQWater Corporation and SunWater. While the physical assets were transferred, much of the asset history was not. The little information that was available was usually piecemeal and held in a variety of different systems, formats and asset levels. In many cases, asset management systems did not exist nor did established maintenance programs. The staff transferred to Seqwater were mostly operations rather than maintenance staff.

Consequently, Seqwater did not have the benefit of past maintenance history or pre-existing systems upon which to base its forward maintenance program, and has had to rebuild these systems and processes and start to collect asset history from a near zero base.

Secondly, Seqwater did not have an internal maintenance workforce transferred to it upon taking ownership of the assets. In response, Seqwater adopted a resourcing model that involved re-orientating existing roles to manage work undertaken by external resources. Maintenance contractors were secured through a panel of providers. This provided the most flexibility to respond to varying maintenance requirements, enabling Seqwater to leverage off existing productive relationships with both local and regional contractors. Seqwater is not yet at the stage where it can conclude that a significant change to its resourcing arrangements is warranted, and indeed there continues to be value in having the flexibility afforded by continuing to outsource maintenance.

Seqwater has taken significant steps to develop and implement a robust maintenance program. This work is still evolving and moving towards industry best practice. This process is resource-intensive and relies on a long history of consistent asset information of appropriate quality before reaching full maturity. This process can be described in terms of three distinct phases, as indicated in the diagram below:

Stages of maintenance practices



Seqwater is currently in the second stage. Achievements to date include establishing a single asset management system within the Corporate Information System (CIS), identifying assets and establishing a hierarchy, and populating the system with data. Seqwater has also prepared maintenance plans for scheduled items on a monthly timestep for each facility, based on a 12-month rolling schedule. These maintenance tasks and their timings are included in the CIS, which then uses work orders to initiate jobs. These work orders also contain work instructions for each maintenance task.

There has been significant progress in implementing a robust maintenance system. However, it will take some years to build a reasonable asset history and information base. Once this occurs, more sophisticated maintenance practices can be developed in the third stage.

At the GCDP and WCRWS, total direct costs deceased by almost 14% in nominal terms compared to the 2011-12 forecast. This decrease is primarily driven by three key factors consisting of:

- significant reduction in Defects' project costs and other "one off" projects in 2012-13 due to the anticipated completion of this work during 2011-12;
- completion of flood repairs work during 2011-12; and
- reduction in operating costs of the Gibson Island AWTP due to the cessation of water production during 2012-13.

These costs are the result of an extensive process of negotiation and scrutiny of the Operator's cost proposals for these plants. The box below provides a brief overview of the contract management arrangements for GCDP and WCRWS.

Contract management – WCRWS and GCDP

The GCDP and WCRWS were developed as drought assets under project delivery and operations models peculiar to the circumstances at the time. This resulted in the following arrangements for ongoing operations and maintenance.

At the WCRWS, a long-term operations contract exists with Veolia Water. The WCRWS contract has only recently entered the post-asset commissioning phase. The commercial arrangements during this two-year phase are for a budget to be agreed, and for pain share and gain share to apply on the outcomes of the agreed budget. Veolia Water earns a margin on the actual costs. After this two-year period (due to end in the 2013-14 year), longer-term arrangements apply that move away from pain share/gain share and margin, towards a fixed price approach.

The GCDP operates under a design-build-operate contract with the Gold Coast Desalination Alliance. This Alliance comprises Seqwater (formerly WaterSecure), John Holland and Veolia Water. Veolia Water provides the operations staff and resources for the GCDP under the alliance arrangements. The long-term contractual arrangements provide for an open-book approach to costs passed through to Seqwater, incorporating an operating margin and performance KPIs.

Seqwater manages the costs at these plants within the confines of the current agreements, with the aim of obtaining value for money and ensuring the costs charged are efficient. In its 2011 report, the QCA summarised a number of issues raised in the SKM review of

WaterSecure costs, and noted "*SKM considered that the budget setting process as defined in the current maintenance and operation agreements and hence efficient outturn in overall operating costs under the agreements was highly dependent on both parties having the knowledge and experience to accurately determine reasonable and realistic budget operating costs. SKM noted there was an established procedure to review and agree the draft budget developed by Veolia Water over a 60-working day review period... In addition to the pain share / gain share mechanism, this provides a degree of protection and safeguards to ensure that the final budget costs are efficient*." [24]

For 2012-13, Seqwater has adopted a similar contract management approach. This has involved reviewing in detail the cost proposals from Veolia Water to identify any areas of potential over-servicing, whether the resourcing is appropriate to the volume of work, and establishing whether the unit rates are appropriate.

Where possible, Seqwater has reviewed or benchmarked cost proposals. For example, Seqwater compares unit prices proposed by Veolia against its own costs, and has also reviewed the maintenance regimes proposed against its own regimes for similar assets.

Both Seqwater and Veolia Water face a number of challenges in cost forecasting, particularly given the assets are new and there is an absence of maintenance history, along with the year-on-year changes to the operating environment.

[24] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 99.

Corporate costs

Corporate functions have been defined here as comprising the office of the CEO and the Organisational Development and Business Services groups. Figure 10.7 below sets out the proposed expenditure for these groups, the FTEs in each group, and a break-up of the costs between labour and other costs.

Figure 10.7 – Corporate costs 2012-13

	2012-13		
	FTEs	Employee costs	TOTAL
CEO office and Board	**3.80**	$ 1,475,439	$ 1,669,139
Organsiational Development - EGM Office	**3.00**	$ 656,077	$ 1,039,277
Organisational Capability (now in People and Culture)	**-**	$ 150,500	$ 743,100
Community Relations	**3.00**	$ 325,730	$ 769,799
Corporate Relations	**8.80**	$ 1,035,142	$ 1,707,142
WH&S	**10.00**	$ 1,493,201	$ 2,820,539
People and Culture	**12.60**	$ 3,806,777	$ 4,349,677
Process Improvement	**3.00**	$ 463,986	$ 1,701,136
Strategic Management and Sustainability	**4.30**	$ 646,994	$ 1,020,394
Business Services - EGM Office	**2.00**	$ 499,821	$ 504,621
Legal and Risk	**10.40**	$ 1,500,504	$ 10,537,795
Governance and Compliance	**4.50**	$ 608,523	$ 1,863,223
Finance	**29.10**	$ 3,542,976	$ 4,178,976
Economic Regulation	**4.00**	$ 669,982	$ 3,242,518
ICT Services	**38.00**	$ 4,200,448	$ 12,870,544
Procurement	**12.00**	$ 1,383,789	$ 1,524,989
Projects	**2.00**	$ 332,463	$ 332,463
Property and Facilities	**21.00**	$ 2,143,291	$ 10,341,585
Records and Information Management	**3.75**	$ 413,150	$ 849,930
Total Corporate Functions	**175.25**	**$ 25,348,792**	**$ 62,066,846**

Additional costs for 2012-13 include:

- Economic regulation ($1.5M) – The increase is largely due to the inclusion of the QCA levy of $1.4M, which was previously an allowable cost, and is now to be treated as a fixed operating cost.
- ICT Services ($1.5M) – employee costs have increased with an additional 16.5 positions, but this has been more than offset by reductions to staff contractors. The underlying source of the increase relates to new projects and initiatives.
- Legal and risk ($1.1M) – the majority of this increase relates to a $1.5M increase in insurance premium costs, offset by other savings within the group. The increase in insurance premiums are forecast to occur across various policies due to changes in

market conditions. Seqwater's insurance costs also increase as its asset portfolio increases (e.g. the transfer of Wyaralong Dam and completion of Hinze Dam), and premiums may also increase as a result of recent claims history.

The overall increases in corporate costs have been offset by a reduction in rates costs (contained within the Property and Facilities budget) resulting from liaison with government to exclude certain items from the Tax Equivalence Regime.

Technical and operational functions

Non-direct technical services relate to engineering and other functions that are located centrally. These services are budgeted centrally, with some items costed directly to assets (the direct costs above), and other costs that largely relate to centralised services or activities that cannot be attributed directly. These functions largely relate to the Asset Delivery and Technical Warranty and Development groups,[25] and include:

- development of systems and processes, such as environmental management and asset management;
- asset planning;
- engineering support;
- research, science and technology.

The cost of these functions has been derived for illustrative purposes by subtracting the costs directly assigned to assets from the total cost of the relevant groups (including Technical Warranty & Development, Asset Delivery and Water Delivery). The residual represents the non-direct component, and totals $58.2M.

The major changes for 2012-13 include savings from implementing the handover and project closure strategy for the GCDP and WCRWS ($7.3M), offset by increases elsewhere, including for additional asset planning costs.

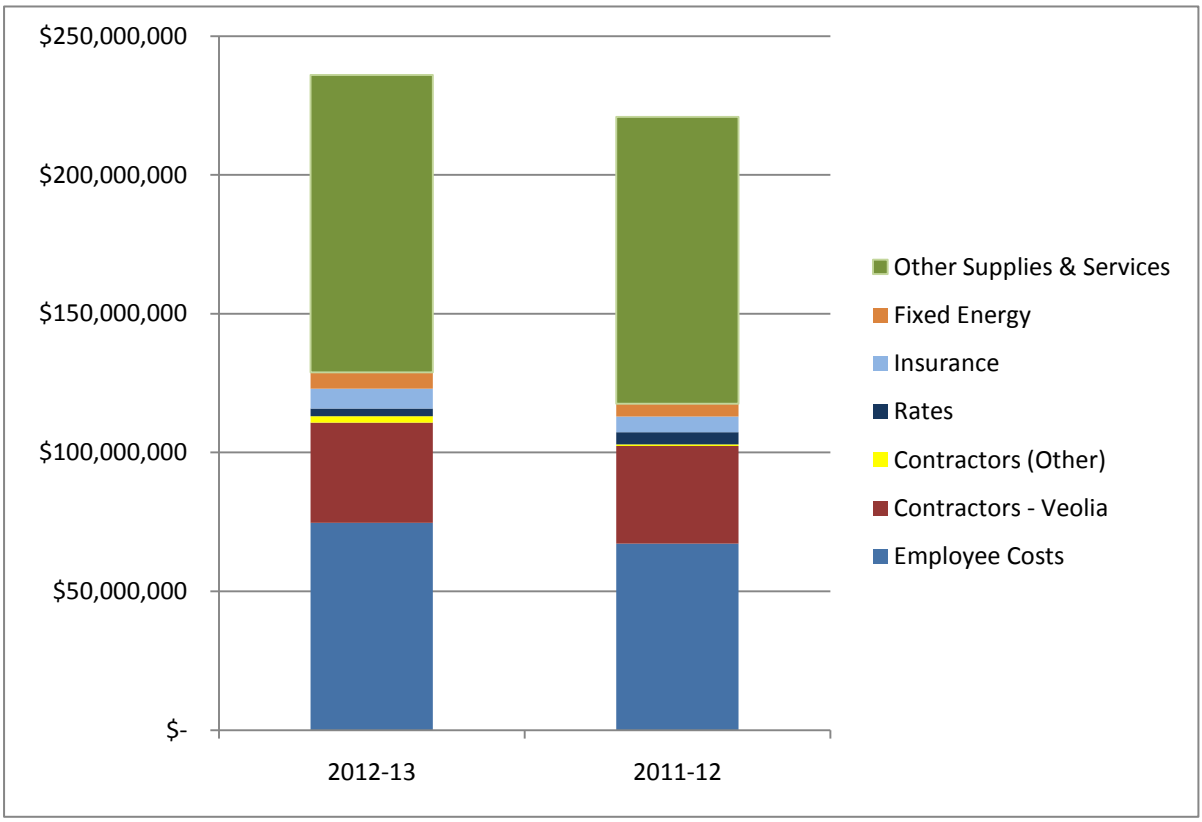
[25] The Water Delivery group also contributes costs, as not all costs are directly costed to assets.

10.3 Comparison to 2011-12 forecast actual expenditure

Seqwater has forecast actual fixed operating expenditure for 2011-12 at $215.5M, or $220.9M in $2013.

Figure 10.8 below presents the changes (in $2013) from the 2011-12 actual forecast. It is important to note that this forecast was made as at December 2011, and the final actual expenditure will be different to this amount.

***Figure 10.8* – Comparison to 2011-12 forecast actual Fixed Opex Cost Base ($2013)**



This shows the biggest change in dollar terms is in employee costs, consistent with the discussion above in relation to addition of 62.5 FTEs along with EBA rate increases. The largest individual cost item – other supplies and services – has increased slightly (2.4% in real terms) due to a range of factors (including waste levies and insurance), although this increase is moderated by the reduction in staff contractors who are being replaced by FTEs.

10.4 Seqwater-WaterSecure Merger

The merger of WaterSecure and Seqwater was announced on 5 December, 2010[26], with the merger taking effect from 1 July, 2011. The merger has had some implications for the 2012-13 proposed fixed operating costs, although any achievable savings will take some years to emerge.

The QCA has commissioned SKM to conduct a separate review of fixed and variable costs for the 2011-12 year following the merger. This section provides some discussion around the longer-term implications from the merger for fixed operating costs for employees and other items.

Employee costs

The nature of Seqwater's (and previously WaterSecure's) assets mean that opportunities to rationalise and consolidate inputs to reduce direct costs at storage and treatment facilities are limited as these are standalone plants that are spread geographically. Moreover, the operation and maintenance of WaterSecure's assets has been outsourced to Veolia Water under long-term contracts.

This is reflected in the fact that there were very minor changes to the employee and contractor resources for the Asset Delivery and Water Delivery groups, as these functions (operations, maintenance, capital planning and delivery) were already being carried out separately by Veolia Water for the GCDP and WCRWS.

Efficiency savings in relation to labour costs were also constrained in the short term by:

- the conditions of the transfer of WaterSecure staff, which requires no forced redundancies for EBA staff; and
- the EBA conditions for pre-existing Seqwater staff, which also require no forced redundancies (consistent with the requirements of the State Government's Employment Security Policy).

Despite this, the merger has resulted in reductions in FTEs across corporate functions, particularly for Business Services and Organisational Development and at executive / Board

[26] http://www.cabinet.qld.gov.au/MMS/StatementDisplaySingle.aspx?id=72863

level.[27] These changes are described in detail in the material provided to SKM for their review, and can be provided separately to the QCA if required.[28]

For 2012-13, there has been growth in FTEs in the corporate area (particularly Business Services), however this is mostly a result of replacing contractor and agency staff with permanent employee positions. Indeed there has been a net saving in the corporate area from this process and a reduction in overall Business Services costs.

There has also been growth in FTEs involved in direct operations or specific technical roles in response to growing external requirements on the business. This growth would be required regardless of the merger.

Systems and infrastructure

Prior to the merger, Seqwater and WaterSecure operated under different business models and maintained different types of assets, and consequently had different systems that supported those processes. While the pre-merger process considered systems and infrastructure issues, time and other factors meant that only the finance (including asset management) system was integrated at the time of the merger.[29]

The merged entity currently operates a number of duplicate systems, in order to preserve access to historic information and to continue to support business operations. The main two areas of potential savings are:

- consolidating systems and avoiding the licensing and maintenance costs of the duplicate system (although the cost costs to maintain access to historic information will continue, where ongoing access is considered necessary);
- consolidating networks at locations near to WaterSecure sites (Tugun and WCRWS treatment plants). Savings can occur where single, larger capacity network infrastructure can be utilised, instead of smaller, parallel infrastructure (for example, creating a regional hub and spokes).

However, these savings will follow decisions about improvements to Seqwater's business processes and finalisation of resourcing arrangements under the merged environment. Moreover, both organisations are new and are operating in dynamic operating conditions and hence the business requirements themselves are changing and are being fine-tuned.

[27] As set out above, the WaterSecure 2011-12 fixed operating costs excluded $2M relating to expected board and executive cost savings.

[28] In preparing forecast of actual expenditure for 2011-12, a total of 533.4 FTEs has been adopted. This is slightly lower than the FTEs set out in Table 1 of the information provided to SKM, which shows 527.8 post merger, plus an additional 7.4 positions during the 2011-12 year (a total of 535.2 which is slightly higher than the 533.4 adopted in the current forecast).

[29] The telephony system has been integrated, enabling some economies of scale and savings from bulk discounts.

Hence, the focus has been to bed down the business requirements under the merged entity and take account of changes in the operating environment before taking decisions about system rationalisation. This will avoid prematurely setting up new systems or 'forcing' old systems that do not meet business needs leading to embedded inefficiencies or creation of further costs in years to come.

Some duplication also exists for data centres, as WaterSecure's data centre was too small for the merged entity. The data centre was outsourced and the contract has three years remaining. Seqwater has established a separate data centre to meet the needs of the larger, merged entity. The legacy WaterSecure data centre will be maintained and utilised as a test environment, offsetting the costs of establishing a separate test environment.

Overall, it is expected that most savings will take a further 1 to 3 years to be realised.

In the meantime, the costs of maintaining duplicate systems, supporting the changes to business processes (and resulting system changes) arising from the merger, and then implementing changes and improvements will mean costs for systems and infrastructure will be necessarily higher in the short term.

This has in turn created a requirement to review and develop new systems, which has had implications for resourcing of the IT function. This in part explains increases to the FTEs for 2012-13 in the ICT group,[30] although all increases are more than offset by reductions to contractor and agency staff.

Premises

Prior to the merger, the CBD premises for Seqwater and WaterSecure were:

- Seqwater:
    - 240 Margaret St. This building is owned by Seqwater, with a small amount of floorspace leased to two separate tenants;
    - 340 Adelaide St, which is leased by Seqwater, and houses the flood operations centre; and
    - Mineral House – a small room serving as the back-up Flood Operations Centre
- WaterSecure:
    - 95 North Quay, which was leased by WaterSecure.

Since the merger, the accommodation arrangements were re-organised so that WaterSecure staff were integrated into 240 Margaret St, and the Asset Delivery group was

[30] Increases are also related to systems required for compliance purposes.

moved to the premises at 95 North Quay. This has meant that immediately following the merger, Seqwater continues to occupy the same CBD premises as before the merger.

It is important to note that the lease for 95 North Quay is fixed until August, 2014, and the current floorspace is required for the Asset Delivery group.

Future opportunities to rationalise accommodation may exist, however Seqwater is unlikely to be able to realise any savings until after August 2014 at the earliest and any change will be subject to any Government policy or direction about the location of head office premises.

Supplies and services

Prior to the merger, Seqwater and WaterSecure sourced a number of common materials, particularly chemicals and electricity. These continue to be sourced separately due to legacy contractual constraints (refer also to Chapter 11).

The remaining supplies and services sourced by WaterSecure were relatively minor, and to the extent possible (and where there is value in doing so), these have been integrated using a single supplier. All contracts are now integrated into a single contract register and a single procurement process has been implemented. In some instances, contracts with dual suppliers continue to exist because of the term of those contracts. These contracts will be reviewed as soon as Seqwater is able to do so (e.g. when those contracts expire).

While there may be potential for savings to arise through bulk procurement or greater purchasing power as a result of the merged organisation requiring a larger volume of supplies and materials, these efficiency savings are limited given that the operations of ex-WaterSecure assets are already outsourced, and the nature of those legacy contracts inherited by Seqwater mean that Veolia Water is largely responsible for procuring inputs (refer also to Chapter 11 for discussion on energy procurement). Other opportunities are likely to be limited in the short term due to legacy contractual or supply arrangements. For example:

- Fleet – Seqwater has a fleet of around 200 vehicles to support its operational workforce, while WaterSecure only required a fleet of around 10 vehicles. Following the merger, it was found that efficiencies could be made through rationalisation, and there was a disposal of some vehicles
- Insurances – Seqwater is planning to go to market for a combined insurance policy for 2012/13. The existing, parallel policies have been timed to expire on the same date (September 2012) enabling Seqwater to go to market for a single policy after this time. This may enable savings that would otherwise not occur, although such savings will be

difficult to isolate and quantify given the range of other factors driving the costs of insurance; and

- Premises - as set out above, opportunities to rationalise CBD accommodation and move to a single premises may exist, although the cost and savings from doing so will depend on market circumstances at the time. Moreover, any savings will not be able to be realised until after August 2014 given all floor space is currently required, albeit in separate premises.

10.5 Revenue offsets

Seqwater earns revenues from assets and activities that are related or common to the assets that also provide grid services. These include revenues from the supply of water to irrigators and other users, and sundry revenues such as recreation fees and leasing of flood margin.

Seqwater proposed to continue the previous arrangements for revenue offsets, resulting in $4.5M offsetting GSCs for 2012-13, compared to $4.0M for 2011-12.

Irrigation and other water supply revenues

For 2011-12 GSCs, the Direction Notice to the QCA required that the prior approach of passing through irrigation revenues and costs in GSCs be continued.

The Direction Notice for 2012-13 does not explicitly state this requirement, but Seqwater submits that it is not practical to move away from this arrangement until such time as irrigation prices are re-set in 2013-14. This will enable a comprehensive review of cost allocation and related matters.

This arrangement requires all operating costs of the assets servicing irrigators (regardless of whether they service the WGM or not) to be included in GSCs, with irrigation revenues, including Community Service Obligation (CSO) payments, as well as revenues from non-irrigation water entitlement holders[31] (eg industrial users, Gympie Regional Council) applied as a revenue offset. Seqwater has forecast irrigation and CSO revenues for 2012-13 at $3.3M, and revenues from other entitlement holders at $0.6M.

A portion of the CSO and irrigation revenue is held aside as renewals annuity income, based on the renewals accounting assumptions originally applied to irrigation pricing. This results in $0.5M of the $3.3M in irrigation revenue (including CSO) being held for the renewals annuity, with the difference ($2.8M) being applied as a revenue offset. This renewals annuity income will be dealt with finally at the review of 2013-14 irrigation prices. Seqwater will make proposals about the treatment of past renewals income and expenditure as part its submissions for irrigation prices, due 30 April, 2012.

In closing, Seqwater proposes that $2.8M is applied as a revenue offset from irrigation charges, along with $0.6M from non-irrigator users ($3.4M in total). Seqwater will retain the $0.5M renewals annuity income component, and these proceeds will be dealt with as part of the forthcoming review of irrigation charges.

[31] Except for the WGM.

Other revenue offsets

Seqwater also collects recreation revenues and leases the flood margin and houses at its storages. It is not considered practical or necessary to separately allocate costs to these incidental activities, and instead include the costs of those activities and pass back the revenues received. The forecast revenues from these activities total $1.1M in 2012-13.

The total revenue offset for 2012-13 is $4.5M.

Chapter 11 – Variable Operating Costs

Section 8.13 of the Market Rules requires the Price Regulator to allow GSPs to recover efficient variable operating costs. In its final report for 2010-11, the QCA recommended that Variable Operating Charges are set on a $/ML basis, by asset, and invoiced based on actual production.[32]

For 2011-12, QCA accepted both Seqwater's and WaterSecure's proposed Variable Operating Charges as being prudent and efficient. These charges comprised variable electricity and chemical costs for WTPs, and variable electricity, chemical and sludge and waste disposal costs for the GCDP and the WCRWS.

Seqwater has forecast its variable operating costs for 2012-13. However at this stage it is only able to present interim forecasts. This is because the prices for the major inputs are yet to be finalised due to matters largely outside Seqwater's control, such as:

- regulated network and environmental charges on contracted electricity charges is yet to be finally advised to Seqwater from its energy retailer;
- the impact of the carbon tax on contracted electricity prices and the flow-on effect of carbon tax on chemical prices (via price reviews) is yet to be finally advised to Seqwater from its energy retailer and chemical suppliers;
- GCDP and WCRWS will not be able to source energy under Notified Tariffs from 1 July, 2012 following recent changes to the rules governing eligibility for those tariffs. Procurement processes have commenced and will be concluded by 1 June 2012;
- the procurement process for the new chemical contract for GCDP and WCRWS is not yet complete, and the chemical costs in this submission are estimates of the expected costs of those new contracts. It is anticipated this process will be completed by the end of May 2012;
- changes made by the WGM raising the water quality standards at Molendinar and Mudgeeraba. The costs of achieving these new standards are still to be assessed through a trial; and
- clarification from Government about the continuation of the requirement for the GCDP to be carbon neutral after the existing Renewable Energy Certificates (RECs) are exhausted in 2012-13.

Seqwater will present updated variable operating cost information to the QCA throughout the course of this review, with the aim of having final proposed Variable Operating Charges presented in time for the QCA's final report, due on 30 June 2012.

[32] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 17.

Seqwater also incurs the operating margin variable operating costs under the terms of the contract with the Gold Coast Desalination Alliance (referred to as Veolia Water for the purposes of this submission), and Veolia Water at the WCRWS. This margin was not included in the 2011-12 variable operating costs, but was instead treated as a fixed operating cost. This has been amended for 2012-13 so that the variable and fixed costs better reflect the underlying cost structure from the operations contracts with Veolia Water. Accordingly, the margin has been included in the proposed Variable Operating Charge, and removed from fixed operating costs.

This section sets out the interim forecasts, and provides information for each WTP, the GCDP and WCRWS in terms of each variable operating cost item being electricity, chemicals and waste and sludge disposal. This section also puts forward proposed amendments to tariff groups to address specific issues at the GCDP and WCRWS.

In general, these interim forecasts show significant increases in variable operating costs against those approved in 2011-12. Some of these increases have already occurred during 2011-12 and as a consequence actual costs for 2011-12 (in $/ML terms) are well above that assumed when setting the current Variable Operating Charge. Hence, while there appears to be a substantial increase in variable operating costs between 2011-12 and 2012-13, a significant portion of the increase occurred in 2011-12. Accordingly, the actual costs for 2011-12 (in $/ML terms) provide a better baseline for comparison to 2012-13.

11.1 Electricity costs

The variable energy cost relates to the incremental energy consumed in supplying an additional ML of water, and the electricity prices paid on a consumption basis (as distinct from fixed electricity tariffs which are treated as fixed operating costs).

The energy requirement (kWh/ML) will be different at each site due to specific conditions, including lift (for pumping), raw water quality and the treatment process used. The kWh/ML at each site can also vary throughout the year with fluctuations in raw water quality and changes to water levels.

Seqwater has reviewed the variable energy requirements at each WTP and the GCDP and WCRWS. Significant findings that affect variable electricity costs include:

- electricity costs at each WTP have varied substantially from the assumptions used for the 2011-12 GSCs which is due to increases in regulated network and environmental cost, carbon tax, and changes in kWh/ML driven by different operating modes or the proportion of production compared to plant capacity. Seqwater has revised the variable electricity costs to better reflect this more recent information and experience during 2011-12. Electricity prices are also expected to increase;
- for the Luggage Point and Bundamba AWTPs, the energy required to produce very low volumes is far higher (on a kWh/ML basis) than under more normal operating conditions. This is because there are significant energy costs in 'starting up' and shutting down the plant to produce small production runs each day, compared to larger production runs or continuous operation mode. Seqwater has also made a preliminary assumption that electricity prices will increase, although this remains to be tested when Seqwater goes to market over the coming months; and
- for the GCDP, it is now apparent (with the plant having operated in Hot Standby Mode) that energy costs previously considered variable are in fact fixed. It is also clear that energy costs are slightly different at different operating capacities. Seqwater has also made a preliminary assumption that electricity prices will increase, although this remains to be tested when it goes to market over the coming months

The assumptions and proposed interim variable electricity costs are set out below for each plant type.

WTPs

Variable energy per ML

The electricity required on a day-to-day basis will vary according to operating mode, SOP drivers, water quality conditions, water levels and other factors. As set out above, Seqwater is also gaining more operational data on WTP performance, limitations under certain conditions under much tighter regulatory requirements and its understanding of costs and inputs at each WTP is improving. This includes energy costs, where Seqwater has re-forecast the energy requirements at each WTP based on more recent historic data.

In developing its forecast energy requirement at each WTP, Seqwater acknowledges that each plant will have a baseload 'fixed' energy requirement, regardless of use. This requirement is difficult to identify, and for 2012-13 GSCs Seqwater has assumed all energy consumption is variable. Nonetheless, it is important to acknowledge that Seqwater's approach means that changes in energy cost per ML will, in part, be sensitive to forecast volumes, particularly in plants that are operating at a small fraction of their capacity.

Energy prices at WTPs

For WTPs, electricity is procured under a contract that was made following a competitive tender process in 2010. This contract expires in December, 2013. This is the same contract that applied for 2011-12 grid service charges, and resulted in substantial reductions to electricity costs (as also noted by the QCA).[33] Seqwater estimated that this contract will have saved around $1.8M for 2012-13. These cost savings occur as raw electricity prices are fixed until the end of the contract, although increases still arise from pass through items such as the impacts of the carbon tax, changes to regulated transmission/distribution prices and costs under the *Renewable Energy (Electricity) Act 2000*.

However, as at the date of making this submission Seqwater had not been informed of the precise pass through items under the energy contract.. Instead, Seqwater has made preliminary assumptions pending final advice from its retailer.

The carbon tax estimates for the large and small WTPS were based on increases cited in the Queensland Treasury Corporation (QTC) publication "Carbon Impacts on Queensland, August 2011". The QTC Report suggested an 82% pass through of the carbon price would occur, which Seqwater has estimated would translate a 10% increase in retail electricity price. In preparing preliminary forecasts for 2012-13, Seqwater has assumed more conservative pass through of 100% of carbon price at large WTPs based on advice from Seqwater's Electricity Retailer (TruEnergy). For the small WTPs, the 10% retail electricity increase was assumed.

[33] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 68.

The regulated network costs are made up of both distribution and transmission charges and impact the large WTPs only. A 20.9% increase was assumed for the distribution costs based on an estimated 16.9% increase as stated in Energex's Statement of Expected Price Trends 2011-12, June 2011 plus a further 4% was applied based on historical typical variances between the Expected Price Trend estimates and approved rates provided by Energex. A 19% increase was assumed for the transmission costs based on the average increase of these costs over the past two years.

Costs relating to retailer obligation levels under the *Renewable Energy (Electricity) Act 2000 (*SRES[34], LRET[35] & GEC[36]) are confirmed in January each year. *The estimates for these charges* were calculated by applying pricing provided by TruEnergy based on their obligation level at the time of preparing the budget. The obligation levels for calendar year 2012 have been confirmed and pricing for both the LRET and SRES have increased, resulting in an additional $0.1M cost for both 2011-12 and 2012-13.

With more operating data for the plant kWh/ML and refinement of assumptions for peak and off-peak ratio in the context of actual variance and cost risk from this variance, a relatively small (3%) increase in electricity costs has also occurred into the 2012-13 budget compared 2011-12.

Some 10% of energy at WTPs is procured as green energy. The inclusion of green energy into Seqwater's energy portfolio accords with the Government Policy *Towards Q2*. Nonetheless, Seqwater has sought further confirmation from Government about its expectations for Seqwater under this policy into the future.

GCDP

Variable energy per ML

The GCDP is designed to operate at 33%, 66% or 100% capacity. Further analysis by Seqwater during 2011-12 has shown that the amount of energy required to produce each ML of water is slightly different at each operational capacity.

Primarily, this is because the diffuser, located at the ocean outfall, is required to operate at a minimum velocity. When the plant is producing at a capacity lower than 100%, the operation of additional intake pumps is required to enable this minimum velocity to be met. Larger energy consumption per ML is therefore driven by the operation of these intake pumps.

The GCDP is also required to operate under Hot Standby Mode for 2012-13, except when instructed by the WGM to produce water (e.g. during any shutdown of the Molindinar WTP).

[34] Small-scale Renewable Energy Scheme.

[35] Large-scale Renewable Energy Target.

[36] Green Energy Certificates.

The operating strategy under Hot Standby Mode requires the plant to be flushed twice per week, with each flush requiring 25ML of water. This operating strategy was developed following various investigations undertaken in consultation with the WGM. The regular flush is required to prevent fouling of membranes within the plant, and to turn over the volume of the network pipeline downstream of the GCDP in order to manage water quality during Hot Standby, such that the plant can commence water production within the specified time of 72 hours when called upon via instructions from the WGM. LinkWater had raised concerns that elevated pH could occur during shutdowns if this volume of water is not turned over within this manner. The water produced (from the flushing operation) is delivered to the Water Grid and substitutes for water that would otherwise have been produced at the Molendinar or Mudgeeraba WTP's. However, this water is produced only to keep the plant in Hot Standby Mode, and not in response to a WGM demand. Seqwater proposes a specific tariff treatment to account for these costs (refer below).

Seqwater has also found that the plant consumes significant amounts of energy when there is absolutely no water production at all, i.e., no production for the purpose of flushes is undertaken. The cost of this energy, estimated $1.2M per annum, still occurs during periods when no water production is undertaken. Energy is consumed because of the need to continue to maintain a base flow of water through the ocean intake and outfall structure. This base flow is required in order to:

- Minimise the durability risk of the concrete outfall structure by eliminating water stagnancy, and
- Minimise the environmental risk of discharging stagnant water after re-starting the plant and the risk of environmental issues in the water pumps due to stagnation of the intake and outfall.

The fixed electricity cost of $1.2M has been included in Fixed Operating Costs.

Energy prices for the GCDP

For the GCDP, electricity for 2011-12 was procured under Notified Tariffs (Tariff 43). SKM confirmed this to be efficient in its 2011-12 review for the QCA, given the prevailing circumstances.[37]

The Notified Tariffs for GCDP will no longer be available from 1 July, 2012[38], and Seqwater has commenced the process to procure electricity from the contestable market for the GCDP.

[37] SKM (2011). pp 69-70.

[38] In accordance with the Government's announcement that from 1 July, 2012 all non-residential customers in ENERGEX's network area who consumer over 100 MWhr per annum must move to a market contract.

The GCDP has certain Government requirements for carbon neutrality.[39] Seqwater currently meets this requirement through its purchase and surrender of RECs[40]. A total of 182,098 RECs were originally purchased in 2009 following an expression of interest / tender process seeking proposals to achieve carbon neutrality. The cost of the RECs purchased as a result of this process was $43.38/kWhr. It is anticipated that these RECs will be exhausted during the course of the 2012-13 year. Seqwater has sought guidance from Government about whether the requirement for the plant to be carbon neutral will remain beyond the current RECs already purchased. Seqwater has not commenced a procurement process for products/services to maintain the plant's green energy status, pending advice from Government.

In order to present preliminary prices, assumptions have been made about energy prices for 2012-13, including:

- prices for Tariff 43 are assumed (based on an increase of 11.39% to 2012-13), along with assumptions around peak and off-peak use. Seqwater recognises that Tariff 43 will not be available, but this is considered a reasonable proxy to present preliminary cost estimate;.
- application of the operator margin on variable operating costs, which is a contract term for the operation of the GCDP;
- the continuation of the requirement for the GCDP to be carbon neutral, and if so, further estimates of the costs of doing so once the current RECs expire; and
- a 20% allowance for the impacts of the carbon tax on Notified Tariffs.[41]

Seqwater proposes the actual Variable Operating Charge for 2012-13 is based on actual contracted energy prices, following finalisation of the procurement process.

WCRWS

Variable energy per ML

At the WCRWS, variable energy relates to production at each advanced water treatment plant, and the network costs of pumping raw water to those plants (raw water pump stations, or RWPS), and treated water from those plants (treated water pump stations, or TWPS) and booster pumps situated along the network pipeline.

[39] This was previously examined by SKM and QCA for the 2011-12 review. Refer SKM (2011), p 67.

[40] Large Scale Generation Certificates now replaces the REC scheme.

[41] Based on preliminary advice obtained by Seqwater, which estimated that Notified Tariffs would increase by about 20% and prices at contestable sites by about 10%.

For 2011-12 GSCs, WaterSecure was advised by WGM that some 7,300ML per annum (or 20ML/day) would be produced at each of the Luggage Point AWTP and Bundamba AWTP. The assumption for energy consumption was therefore based on 20ML/d at each AWTP. In practice for 2011-12, the plants have been run at far lower volumes, requiring stop-start operations. Indeed if production continues at the same rate for the remainder of the 2011-12 year at the Luggage Point AWTP, only 2,432ML will be produced. This has resulted in lower energy consumption efficiencies compared to operating at a rate of 20ML/d. There are substantial electricity costs in 'starting up' and shutting down the plant each day to produce these small volume runs (given the output rate is fixed and there is minimum storage in the system).

The reduction in volume has also affected the plant's ability to take advantage of the energy off-peak hours, because there is very little storage in the system and some customer demands are during peak times. This results in a much higher proportion of peak hour operation, increasing per ML costs.

The implications for 2011-12 GSCs are discussed in Chapter 13 dealing with price reviews.

While energy costs for the Bundamba AWTP have taken account of the lower volumes forecast for 2012-13 (4,380ML) and have been made on the basis of a consistent consumption throughout the year, Seqwater understands the WGM's Luggage Point forecasts for 2012-13 are in two stages: lower volumes for the first part of the year, followed by higher volumes when the WGM anticipates a new industrial users may start taking a relatively large quantity of recycled water. In response, Seqwater proposes that separate tariffs apply on days when production required at the Luggage Point AWTP is less than 10.5ML/day (refer below).

The reduced volumes in 2012-13 compared to the assumptions used for 2011-12 Variable Operating Charges have resulted in an increase in kW/ML at both the Luggage Point and Bundamba AWTPs. This is a result of the short production runs between start up and shut down. In addition some components of the plant (e.g. Admin building) consume the same amount of energy regardless of the level of water production.

Energy prices for the WCRWS

Similar to the GCDP, Notified Tariffs will not be available for 2012-13, and energy will need to be sourced from the market. Under the terms of the operations contract, Veolia Water, is responsible for procuring energy for the WCRWS. Seqwater is in discussions with Veolia Water to determine how to obtain best value from the procurement process, including opportunities for Seqwater to source from the market, for its eligible sites. The Operations and Maintenance Agreement allows Seqwater some control over the source of the electricity supply.

As indicated above, the price outcomes from this competitive tender should be available to the QCA by 1 June, 2012,at which point Seqwater proposes that the Variable Operating Charge at each site are updated to reflect the actual contracted costs.

In order to present preliminary prices, assumptions have been made about energy prices for 2012-13, including:

- prices for Tariff 43 (based on an increase of 11.39% until 2012-13), along with assumptions around peak and off-peak use. Seqwater recognises that Tariff 43 will not be available, but this is considered a reasonable proxy to present preliminary cost estimates.
- the operator margin on variable operating costs, which is a term of the contract the Veolia Water; and
- a 20% allowance for the impacts of the carbon tax on Notified Tariffs.

Seqwater proposes the actual Variable Operating Charge for 2012-13 is based on actual contracted energy prices, once these are known.

Changes to cost composition from energy tariff change - GCDP and WCRWS

Some electricity charges include a fixed tariff component, which applies regardless of use. Accordingly, only the variable energy consumption charge (which applies to each kWh of energy consumed) is used when calculating the consumption charge.

The composition of fixed and variable tariffs may change for the GCDP and WCRWS under contestable tariffs compared to Notified Tariffs. This will be identified when presenting updated Variable Operating Charge proposals to the QCA. Accordingly, there may also need to be an adjustment to the Fixed Operating Charge if fixed electricity charges change as a result.[42]

[42] Peak and off-peak charging arrangements may also change under a retail contract.

Summary - variable electricity costs

Figure 11.1 below sets out the preliminary forecast of variable electricity costs at each WTP, and compares the change to the 2011-12 GSCs and 2011-12 forecast actuals. This table shows there are significant increases to variable electricity costs for 2012-13.

***Figure 11.1* – WTP variable electricity costs ($/ML)**

Location	2012-13 Energy cost ($/Ml)	% Change 2011-12 Forecast actuals Energy	% Change 2011-12 GSC Energy
Banksia Beach WTP	224.81	23%	23%
Caboolture WTP	79.49	16%	4%
Dayboro WTP	98.72	10%	10%
Enoggera WTP	69.44	-	-
Esk WTP	213.15	34%	34%
Ewan Maddock WTP	53.23	-35%	-35%
Image Flat WTP	5.59	52%	59%
Jimna WTP	197.71	97%	89%
Kenilworth WTP	134.88	53%	53%
Kilcoy WTP	131.80	3%	-20%
Landers Shute WTP	4.15	10%	30%
Linville WTP	109.66	58%	52%
Lowood WTP	128.92	32%	65%
Noosa WTP	-	-	-
North Pine WTP	14.26	19%	55%
Petrie WTP	39.73	32%	66%
Somerset Dam Township WTP	48.61	-79%	-80%
Woodford WTP	269.91	113%	96%
Amity Point WTP	126.30	47%	47%
Beaudesert WTP	147.53	80%	80%
Boonah-Kalbar WTP	136.41	100%	115%
Canungra WTP	154.60	43%	43%
Capalaba WTP	70.81	24%	57%
Dunwich WTP	155.19	31%	31%
Kooralbyn WTP	250.13	64%	64%
Molendinar WTP	16.83	26%	58%
Mt Crosby Eastbank WTP	39.78	38%	65%
Mt Crosby Westbank WTP	39.78	38%	65%
Mudgeeraba WTP	33.85	64%	118%
North Stradbroke Island WTP	66.09	25%	33%
Point Lookout WTP	107.65	13%	13%
Rathdowney WTP	133.88	37%	20%
South Maclean WTP	218.44	139%	140%

Notes: Costs for Noosa WTP have not been separately presented given the particular arrangements under the legacy O&M contract inherited with Veolia Water. No energy costs were recorded at Enoggera WTP in 2011-12, as this plant is only operated intermittently.

Figure 11.2 below shows the contribution of each to the change in the unit cost of energy at the largest 10 WTPs, and highlights that the greatest contribution to the increase is regulated charges and carbon tax increases that pass through to Seqwater.

***Figure 11.2* – Contribution of price change and energy consumption change to variable electricity costs ($/ML)**

Locations	Energy Cost Variance	Variance due to kWh/Ml change	Carbon Tax	Due to network and environment charges
Landers Shute WTP	30%	16%	9%	6%
North Pine WTP	55%	(11%)	37%	30%
Petrie WTP	66%	6%	24%	37%
Capalaba WTP	57%	7%	19%	32%
Molendinar WTP	58%	(2%)	24%	36%
Mt Crosby Eastbank WTP	65%	(4%)	38%	32%
Mt Crosby Westbank WTP	65%	(4%)	38%	32%
Mudgeeraba WTP	118%	4%	32%	82%
North Stradbroke Island WTP	33%	%	27%	5%
Total change in energy cost (weighted avg)	55%	10%	30%	15%

Numbers may not add due to rounding

Notes:

Costs for Noosa WTP have not been separately presented given the particular arrangements under the O&M contract inherited with Veolia Water.

The increase for the Landers Shute WTP in kWh/ML occurs because the energy for the pump station to the WTP was previously categorised as fixed, and is not correctly classified as variable. Hence the kWh/ML figure now correctly includes energy for pumping as well as WTP operations.

For the GCDP, the variable energy per ML at the GCDP reduces as the plant reaches full capacity, and the energy requirements under hot standby mode are relatively high given the need to 'start up' the plant for small production runs. The table below presents the electricity costs per ML under each operating mode where the plant is in production, and shows variable energy costs slightly decreasing as the plant operates towards full capacity.

This table also shows that actual electricity costs have been well above that allowed for the 2011-12 GSCs under each operating scenario. This has occurred due to a range of factors,

including lower production volumes against a (now evident) fixed energy cost. Removing the fixed component of electricity will reduce the variable cost per ML in 2012-13. This reduction has been offset by expected increases to the GCDP, comprising:

- a tariff rate increase of 11.39%; and
- the impact of the carbon tax (assumed on average 20%).

Figure 11.3 below provides a summary.

***Figure 11.3* – GCDP Variable Electricity Costs ($/ML)**

Operating scenario	2011-12 Energy Cost GSCs ($/Ml)	2011-12 Forecast actual energy costs ($/Ml)	2012-13 Energy Cost estimate ($/Ml)	% Change to 2011-12 Forecast actuals	% Change to 2011-12 GSCs
GCDP - 33%	539.28	637.11	731.02	15%	36%
GCDP - 66%	539.28	637.11	697.02	9%	29%
GCDP - 100%	539.28	637.11	680.02	7%	26%

Note: amounts exclude operator margin to enable comparison. The 2011-12 forecast actual energy cost has been averaged across each operating scenario, and is not reflective of a linear cost relationship across scenarios.

For the WCRWS, electricity costs have increased at the Bundamba AWTP and Luggage Point AWTP. The increase, which is offset by removing the fixed cost component of electricity cost, is driven by four key factors comprising of:

- a tariff rate increase of 11.39%;
- a carbon tax allowance of 20%;
- an increase in energy consumption to produce a ML water, due to the smaller daily volume requirements of each plant in 2012/13; and
- an increase in electricity peak period usage (which is 150% more expensive than off peak rates on a kWh basis). It is noted only one customer requires the delivery of water during off peak times, and there is very limited storage within the network.

Figure 11.4 below sets out the preliminary electricity costs for the WCRWS, and shows that the increases against the 2011-12 GSCs are high, but also highlights that the actual costs for 2011-12 are generally far higher than allowed for because of demand being far lower than forecast resulting in stop-start operations. The increases in electricity costs for 2012-13

are a combination of assumptions about increases in energy costs and changes based on better information about energy consumption per ML under low demand periods.

***Figure 11.4* – WCRW Electricity Costs ($/ML) (nominal)**

Location	2011-12 Energy Cost GSCs ($/Ml)	2011-12 Forecast actual energy costs ($/Ml)	2012-13 Energy Cost estimate ($/ML)	% Change to 2011-12 forecast actuals	% Change to 2011-12 GSCs
Bundamba AWTP	138.91	268.51	295.32	10%	113%
Luggage Point AWTP - Low Flow Days (<10.5ML/day)	142.54	305.27	428.31	40%	200%
Luggage Point AWTP - Other	142.54	305.27	353.92	16%	148%
WCRW Network	112.88	165.66	158.44	-4%	40%

Note: amounts exclude operator margin to enable comparison. Note that the Luggage Point AWTP forecast actuals are an average across different production rates, and does not mean there has been no cost differential.

11.2 Chemicals

Chemicals are required to treat water and remove substances in the raw water supply so as to ensure the treated water leaving the plants are able to meet the required water quality standards as required in our drinking water quality management plans. The amount of chemicals used (quantity /ML production) will be different at each site depending on the raw water quality characteristics and the type of treatment process employed to achieve nominated water quality standards.

Chemical costs are almost entirely variable – that is, the amount of chemicals required increases (although not necessarily always fully linearly) with output. The rate at which chemicals are used, particularly at WTPs, may vary on a day-to-day basis depending on the prevailing raw water quality, particularly colour, turbidity and alkalinity. A minor component of chemical costs is fixed and these have been included as a fixed cost (for 2011-12 these costs were included as variable).

WTPs

Chemical costs at WTPs have changed due to:

- overall decreases in dosing rates (down by 2%);
- price increases under rise and fall provisions of existing contracts and estimated impact of carbon tax (up by 26%);
- increase in provision for chemical usage due to adverse changes in raw water quality (up by 5%).

Variable chemical requirement at WTPs

The quantity of each chemical required at each site, for each ML produced is derived by examining past consumption and output, and taking into account the risk of events and variability that can occur that impacts on raw water quality and hence chemical doses.

Dosing rates will change throughout the year due to changes in operating conditions. These might occur due to major events (which would be covered under the review provisions for GSCs), or through minor storms or other water quality changes (minor events) that can occur in different circumstances like increased algae levels, manganese and taste. Seqwater has developed its forecasts and dosing rates based on a historic raw water quality range (primarily focusing on colour and turbidity), and then allowing contingency for poor raw water quality following minor events. This allowance does not extend to major events such as extreme weather or water quality event like the major flood events that occurred in January 2011. For 2012-13, additional chemical dose allowance for risk of wet weather and natural events accounts for around 5% of the overall increase in variable chemical costs.

Seqwater has also reviewed the chemical dosing forecast at each WTP based on recent history, and also taking account of changes to operating requirements (e.g. manganese treatment and increased disinfection at certain plants). This has resulted in increases and decreases across various chemical and plants. For 2012-13, refinement of chemical dosing rates used in 2011-12 accounts for around 2% of the overall decrease in variable chemical cost.

Chemical prices for WTPs

For WTPs, Seqwater procures chemicals under competitively-tendered contracts. These contracts are largely the same contracts that were in place for the 2011-12 review of GSCs. These contracts contain periodic price rise and fall provisions. Hence the contract pricing can be impacted by a range of external factors including in some cases changes to world chemical indexes, base raw material pricing, electricity costs and potentially costs that the supplier could not reasonable foresee. Consequently, the carbon tax will impact on chemical prices for 2012-13, although these impacts are not yet known.

Seqwater has had to predict the likely outcomes from the rise-and-fall and contract price adjustment process that will apply after December 2012. For some chemicals, Seqwater has been able to obtain an indication of the likely increase from the suppliers, and based its forecast on this advice. Otherwise, Seqwater has assumed other chemical costs will increase as per historical increases or in nominal terms by between 2.50% and 3.75% or the chemical price will be escalated by the CPI rate of 2.5%, depending on the individual chemical.

The rise and fall contract provisions in chemical contracts can include adjustments for the price of electricity, as it is an input to the production of chemicals. Hence chemical costs will also be affected by the carbon tax. In response, an interim allowance of a 0.7% increase has been assumed for the expected impact of the carbon tax on electricity prices under the chemical contracts except where an electricity percentage component exists in a rise and fall formula. The 0.7% is based on QTC Carbon Price Impact for QLD document dated August 2012 which quotes Australian Treasury's core policy modelling shows an increase in headline CPI of 0.7% for 2012-13. For the sodium hypochlorite chemical, a 5% increase due to carbon tax was assumed based on a 50% contract rise and fall electricity component and a 10% impact from carbon tax (consistent with the QTC estimates referred to above).

For 2012-13, overall assumed chemical pricing changes accounts for around a 26% increase in variable chemical cost. This includes a $500K increase in Alum chemical cost at Mt Crosby Eastbank and WestBank plants due to unavailability of Bauxite based Alum chemical from March 2012 and changing to Alumina based Alum as per all other Seqwater plants.

GCDP and WCRWS

Chemical requirement for each ML produced

At GCDP and WCRWS, Seqwater reviews Veolia Water's proposed chemical dosing rates to ensure they are appropriate.

For the WCRWS, one of the main chemical usage drivers is the concentration of Phosphorus present in the raw water stream. The level of Total Phosphorus is a key determinant of Ferric Chloride consumption. In other words, the higher the quantity of Total Phosphorus in the raw water stream, the higher the Ferric dose rate. Seqwater has reviewed the raw water data to determine the appropriate Ferric dosage levels.

Unit cost of chemicals

For the GCDP and WCRWS, Veolia Water provides its chemical prices and contract of supply to Seqwater, who then reviews these prices against market conditions and the price it obtains under its own contract for WTPs to test for efficiency and value.

The procurement process for the new chemical supply contract that will apply during 2012-13 is still in progress, and final chemical costs are anticipated to be available by the end of May 2012. Seqwater will provide an update to the QCA of variable chemical costs to account for the prices secured under this new contract.

Summary – variable chemical costs

The table below shows the chemical costs on a per ML basis for 2011-12, and the forecast 2012-13 costs. This information is presented in the table below, along with the percentage change. This indicates that the increase in chemical costs aligns with the actual costs experienced in 2011-12.

***Table 11.5* – WTP Variable Chemical Costs ($/ML)**

Location	2012-13 Chemical cost ($/Ml)	% Change 2011-12 Forecast actuals Chemicals	% Change 2011-12 GSC Chemicals
Banksia Beach WTP	45.45	-32%	-32%
Caboolture WTP	73.16	14%	14%
Dayboro WTP	44.08	19%	19%
Enoggera WTP	387.04	950%	950%
Esk WTP	160.47	125%	125%
Ewen Maddock WTP	88.73	23%	23%
Image Flat WTP	54.99	29%	29%
Jimna WTP	148.14	188%	188%
Kenilworth WTP	95.42	-4%	-4%
Kilcoy WTP	56.40	-38%	-38%
Landers Shute WTP	45.75	14%	14%
Linville WTP	99.71	97%	97%
Lowood WTP	43.54	94%	94%
Noosa WTP	-	-	-
North Pine WTP	59.84	52%	52%
Petrie WTP	68.18	58%	58%
Somerset Dam Township WTP	196.80	127%	128%
Woodford WTP	106.21	67%	67%
Amity Point WTP	17.89	8%	8%
Beaudesert WTP	71.93	18%	18%
Boonah-Kalbar WTP	93.21	27%	27%
Canungra WTP	50.83	-16%	-16%
Capalaba WTP	68.38	30%	30%
Dunwich WTP	19.03	19%	19%
Kooralbyn WTP	81.30	17%	17%
Molendinar WTP	43.28	16%	16%
Mt Crosby Eastbank WTP	57.09	36%	36%

Notes:

Costs for Noosa WTP have not been separately presented given the particular arrangements under the O&M contract inherited with Veolia Water. Note that for

Enoggera WTP in 2011-12, this plant was only operated intermittently. Furthermore, for chemical use at Enoggera WTP, note the additional comments in section 11.5 below.

The changes in chemical costs per ML are attributable to changes in chemical prices as well as assumed dosing rates. Figure 11.6 below shows the contribution of each to the change in the unit cost of chemicals at the largest 10 WTPs, and indicates the majority of the increase is due to chemical price increases.

***Figure 11.6* – Contribution of price change and dosage change to Variable Chemical Costs ($/ML)**

Locations	Chemical Cost Variance	Variance due to dosage change	Variance due to additional dosing allowance*	Variance due to Rise and Fall
Landers Shute WTP	14%	(16%)	19%	11%
North Pine WTP	52%	1%	19%	32%
Petrie WTP	58%	9%	27%	22%
Capalaba WTP	30%	16%	-	15%
Molendinar WTP	16%	5%	-	11%
Mt Crosby Eastbank WTP	36%	(5%)	-	41%
Mt Crosby Westbank WTP	36%	(5%)	-	41%
Mudgeeraba WTP	6%	(%)	-	6%
North Stradbroke Island WTP	14%	1%	-	13%
Total Change in Chemical cost (Weighted avg)	29%	(2%)	5%	26%

* Additional dosing is for the treatment plants which did not have an allowance in last financial year for natural events.

Notes:

Costs for Noosa WTP have not been separately presented given the particular arrangements under the O&M contract inherited with Veolia Water.

Dosage rates for Capalaba WTP have increased to allow for increases in Alum dosage in response to rainfall events have shown to impact dam water quality. This has been partially offset by assumed lower dosage rates for Lime, based on better information about dosage rates gathered in 2011-12.

The changes in variable chemical costs for the GCDP and WCRWS are summarised in Figure 11.7 below.

***Figure 11.7* – GCDP and WCRWS Variable Chemical Costs ($/ML)**

Location	2011-12 Chemical cost for GSCs ($/Ml)	2011-12 Forecast actual chemical costs ($/Ml)	2012-13 Chemical Cost estimate ($/Ml)	% Change to 2011-12 Forecast actuals	% Change to 2011-12 GSCs
Bundamba AWTP	166.68	174.81	210.38	20%	26%
Luggage Point AWTP	208.46	209.23	214.38	2%	3%
WCRW Network	-	-	-	-	-
GCDP	112.43	141.84	155.21	9%	38%

Note: amounts exclude operator margin to enable comparison.

This table shows that the actual chemical costs for 2011-12 are above that allowed for in 2011-12 GSCs at the AWTPs, and that the estimated increase for 2012-13 GSCs broadly aligns with the actual costs forecast for 2011-12 for the Luggage Point AWTP As indicated above, the 2012-13 costs are estimates and need to be adjusted once the chemical procurement process is completed and hence the 2012-13 forecasts are preliminary.

For GCDP the main driver for the slight increase in chemical costs is an increase in dosage. In the 2011-12 estimate for Hot Standby, it was anticipated that chemical dosing would not be required during Hot Standby times as the water would by-pass the pre-treatment stage. In practice, it has become a necessity for all of the intake water to pass through pre-treatment with chemical dosing.

11.3 Treatment Plant Waste Disposal

The disposal cost of water treatment residues (sludge and other waste) is driven by four main factors:

- volumes treated (the more water treated, the more waste generated), although this is not always a linear relationship, and is subject to many variables;
- the quality of the raw water (generally the higher the colour and turbidity the greater the volume of residual sludge generated);
- raw water impurities, that is different impurities require different chemical doses and can impact thickening and dewatering treatment processes differently resulting in varying quantities of waste for disposal on a per ML basis; and

- the cost structure for the disposal of the waste itself – depending on the location and nature of disposal facilities available or provided. Different waste treatment and disposal means are employed which have different cost drivers and different costs in time - some waste is disposed on-site weekly with less frequent management activities, some stored for 6 months - 2 years and then disposed off-site; some dewatered and disposed off-site, some thickened and disposed to sewer. Different methods are driven, for example, directly or as a combination of transport costs per hour of truck and heavy machinery hire, some by weight, some by disposal site distance and others by volume and waste quality characteristics.

Water treatment residue costs could be incorporated into the Variable Operating Charge where there is a consistent and linear relationship between volumes produced and the cost. In order for a linear relationship to exist, (and the cost to be included in the Variable Operating Charge), the quality of the water, nature of contaminants, process waste volumes, and thickening and dewatering effectiveness would need to be consistent (removing variation due to changes in raw water quality) and the charging mechanism for disposal volume-based or weight based.

These conditions apply for the GCDP and the WCRWS, as there is little variation to quality in the seawater or from wastewater treatment plants. The waste services are applied on a volumetric or weight basis, and therefore have a direct relationship to the volume of water produced.

However, this is not necessarily the case at WTPs where raw water is sourced from streams, dams or in a few cases, ground water. The quality of rivers can vary significantly due to rainfall (mainly turbidity and colour, and to lesser extent, algae) and the nature and quality of impurities can vary significantly. In the case of dams, the variation from rainfall is attenuated but can be significant. Algae can significantly impact treatment plants that source water from dams and off-stream storages. Algae can impact treatment processes and cause significant increases in waste volumes.

Facilities for the measurement of waste volumes or weights are not always available and estimates are normally made. The cost structure for waste disposal is normally non-linear with production volumes - for example where sludge is transported by truck, the cost is the same whether the truck is full or half-full and cost can vary depending on time of travel and unloading time. For discharge to sewer, costs are impacted by volume and quality which are in turn affected by the effectiveness of the waste thickening process. The effectiveness of waste dewatering processes which directly affect the amount of waste for disposal are impacted non-linearly by “thickness” of waste to be dewatered and the nature of sludge (i.e. waste de-waterability is affected by the nature of the clay or silt and the amount of algal cells in the waste). Also, there are points at which non-routine disposal activities are triggered –

for example if very high waste loads are experienced, this could trigger off-site disposal or additional equipment hire or early cleaning and disposal of waste collection lagoons

For the above reasons, Seqwater does not propose any change to the composition of the Variable Operating Charges for WTPs, GCDP and WCRWs from the 2011-12 GSCs. That is, sludge and waste disposal costs have continued to be treated as a variable operating cost for the GCDP and WCRWS, and not for WTPs (where these costs are included in the Fixed Operating Costs).

Seqwater will continue to monitor the cost drivers and relationships for waste disposal at WTPs, and review whether changes into the future warrant a different approach.

For 2012-13, the cost of treatment plant waste disposal will be impacted by the introduction of the *Waste Reduction* and *Recycling Act 2011* and the *Waste Reduction and Recycling Regulation 2011.* This legislation (which started mid-year in 2011-12) imposes an additional waste levy of $35/Tonne. This has also been impacted by local council landfill sites increasing their charges (excluding waste levy). In one case on the Sunshine Coast, the cost rose from $25/tonne to $110/tonne.

Variable sludge and waste disposal costs – GCDP and WCRWS

Veolia Water is responsible for procuring waste services for the GCDP and WCRWS, and in doing so follows the competitive tender process for suppliers of this service. The cost assumptions made by the Veolia Water have been subject to scrutiny by Seqwater when setting the 2012-13 budget.

Figure 11.8 below summarises the proposed variable sludge and waste disposal costs at the relevant AWTPs within the WCRWS, and the GCDP.

For 2012-13 the cost of sludge disposal will be impacted by the introduction of the *Waste Reduction and Recycling Act 2011* and the Waste *Reduction and Recycling Regulation 2011.* This legislation (which started mid-year in 2011-12) imposes a waste levy on sludge from the AWTPs and GCDP. As the sludge is classified as ‘low hazard regulated waste, a levy of $50 per tonne has been added to the sludge disposal budget for 2012-13.

***Figure 11.8* – Variable Sludge and Waste Disposal Costs ($/ML)**

Location	2011-12 Sludge costs GSCs ($/Ml)	2011-12 Forecast actual sludge costs ($/Ml)	2012-13 Sludge costs ($/Ml)	% Change to 2011-12 Forecast actuals	% Change to 2011-12 GSCs
Bundamba ATWP	60.68	12.28	93.90	665%	55%
Luggage Point AWTP	60.68	22.44	74.18	231%	22%
GCDP	25.84	25.85	32.89	27%	27%

11.4 Proposed tariff groups and indicative Variable Operating Charges

During 2011-12 Seqwater has had the benefit of operating its plants, particularly the GCDP and WCRWS, for extended periods of time under their current operating modes. This has revealed the underlying cost structures when the plants are at various stages of production. Importantly, variable operating costs have been found to be not linear in all cases, and there are step-changes in variable operating costs at certain thresholds.

Indeed, the QCA observed in its 2011 report that that variable operating costs may not be linear and $/ML costs may change. Where this occurred, the QCA stated that a price review was warranted given changes were outside Seqwater's control.[43] For the GCDP and WCRWS, there is now an opportunity to refine tariffs to avoid or minimise the need for price reviews to adjust for changes to WGM demand that cause these plants to cross the thresholds that trigger changes in variable operating costs. These have been proposed below. The impacts for 2011-12 are discussed separately in Chapter 13.

Some minor refinements are also proposed for WTPs.

WTPs

Seqwater does not propose any changes to the tariff groups for WTPs, although tariffs for WTPs for recreation areas (which do not directly service the WGM) have been removed. Instead, the total costs for these WTPs will be recovered as a fixed charge, as they form part of Seqwater's broader recreation management costs which are to be recovered from GSCs.

The table below presents the preliminary tariffs, and shows the changes for each component cost.

[43] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 151.

Figure 11.9 – Variable Operating Charges – WTPs ($/ML)

Location	2011-12 Variable cost GSC ($/Ml)	2011-12 Forecast actual variable costs ($/Ml)	2012-13 WGM demand (Ml)	2012-13 Variable cost ($/Ml)	% Change 11-12 Forecast actuals total ($/Ml)	% Change 2011-12 GSC total ($/Ml)
Banksia Beach WTP	248.95	248.95	1,460.00	270.27	9%	9%
Caboolture WTP	141.08	132.77	612.00	152.66	15%	8%
Dayboro WTP	126.46	127.17	132.38	142.80	12%	13%
Enoggera WTP	36.86	36.86	270.00	456.48	1138%	1138%
Esk WTP	230.31	230.31	218.92	373.62	62%	62%
Ewan Maddock WTP	154.64	154.65	1,800.00	141.96	-8%	-8%
Image Flat WTP	46.14	46.28	5,547.53	60.58	31%	31%
Jimna WTP	155.91	151.70	13.69	345.86	128%	122%
Kenilworth WTP	187.53	187.51	89.62	230.30	23%	23%
Kilcoy WTP	256.15	219.07	629.44	188.20	-14%	-27%
Landers Shute WTP	43.34	43.93	28,752.53	49.90	14%	15%
Linville WTP	123.09	120.29	13.68	209.37	74%	70%
Lowood WTP	100.42	120.41	2,365.09	172.46	43%	72%
Noosa WTP	143.59	143.58	3,943.48	247.24	72%	72%
North Pine WTP	48.51	51.27	33,536.51	74.10	45%	53%
Petrie WTP	67.03	73.22	6,311.53	107.91	47%	61%
Somerset Dam Township WTP	327.20	319.88	13.68	245.40	-23%	-25%
Woodford WTP	200.95	190.43	319.17	376.12	98%	87%
Amity Point WTP	102.40	102.40	119.88	144.19	41%	41%
Beaudesert WTP	143.17	143.17	620.18	219.46	53%	53%
Boonah-Kalbar WTP	137.05	141.91	496.14	229.62	62%	68%
Canungra WTP	168.30	168.30	78.35	205.42	22%	22%
Capalaba WTP	97.58	109.55	3,942.85	139.19	27%	43%
Dunwich WTP	134.72	134.72	153.45	174.22	29%	29%
Kooralbyn WTP	222.31	222.31	169.73	331.43	49%	49%
Molendinar WTP	47.94	50.61	49,813.10	60.12	19%	25%
Mt Crosby Eastbank WTP	65.98	70.74	81,585.48	96.86	37%	47%
Mt Crosby Westbank WTP	66.29	70.99	14,397.45	97.29	37%	47%
Mudgeeraba WTP	61.66	66.83	18,316.90	82.56	24%	34%
North Stradbroke Island WTP	75.04	78.02	9,490.00	94.86	22%	26%
Point Lookout WTP	110.97	110.57	270.84	122.46	11%	10%
Rathdowney WTP	182.16	168.63	26.11	218.11	29%	20%
South Maclean WTP	174.72	175.33	730.00	320.61	83%	84%

As indicated above, there are a number of WTPs with very large increases in Variable Operating Charge, particularly:

- Enoggera (1138%) – the increase is largely due to revised dosage rates based on historical data for this plant, which only operates intermittently and only 270ML is forecast for production in 2012-13, or some 0.1% of the total forecast production for 2012-13 (282,587ML);
- Jimna (122%) – the increase is mostly due to increases in dosage rates (based on historical data and allowing a provision for dirty water events.), and the large price rises for the specific chemicals used at this plant. There is also a large increase due to

increased electricity network charges at this site. This plant is only forecast to produce 14ML for 2012-13, less than 0.1% of total forecast production;

- Woodford (87%) – the increase is mostly due to revisions in chemical dosing at this plant and increases in cost for the particular chemicals used. Demand at this plant is also relatively small, at 319ML forecast for 2012-13, or around 0.1% of forecast production; and
- South Maclean (84%) – the increase is largely due to changes in electricity network tariffs at this site. Forecast demand at this WTP is 730ML for 2012-13, or 0.3% of forecast production.

GCDP

Three changes are proposed for the GCDP Variable Operating Charge tariffs, which are outlined below.

Hot Standby Tariff

As indicated above, under Hot Standby Mode, the current practice is to produce a 25ML 'flush', twice a week in order for the plant to remain in the state required under this Mode.

The water produced is supplied to the water grid where possible however this water is not necessarily called for by the WGM. However, supplying to the water grid is undertaken as it is the least cost solution of disposing of water produced for each flush.

The electricity cost for each 'flush' is on average $31,900 per event. For 2011-12, Seqwater is bearing these costs which are far greater than the revenue received from the current Variable Operating Charge ($677.55/Ml for 25Ml, or $16,939 per event). This translates to a shortfall of around $15,000 per event. This situation is not financially sustainable, and the tariffs under Hot Standby Mode need to be more cost reflective.

A number of options exist, including:

- Setting a separate volumetric Hot Standby Variable Operating Charge tariff, applied to each ML supplied to the water grid from each flush event. However, this method results in a price signal to the WGM that is meaningless (given the water will be produced anyway) or could result in a perverse outcome where the WGM refuses to accept the water produced, given the high Variable Operating Charge, in which case Seqwater will need to find another (higher cost) alternative for disposal;
- Including the costs in the Fixed Operating Charge. However, this requires an accurate forecast of the time that the GCDP will remain in Hot Standby Mode, and how many flush

events will occur during the year. For example if the WGM calls for water to be produced from the GCDP, such as during a shutdown at Molendinar WTP, then the 'flushing' event will be avoided. Given the significant costs and difficulties in forecasting, it is not considered reasonable to expose Seqwater or the WGM to this forecasting risk.

Instead, Seqwater submits that costs incurred for each flush under Hot Standby Mode should be charged on a per event basis. Based on current information, this would be a charge of $35,585 per event, although this interim amount would be updated following receipt of final electricity cost information as discussed below.

Prices at different capacity utilisation

As set out above, Seqwater has conducted further analysis on the variable operating costs at the GCDP and concluded that the variable operating costs decline slightly as the plant reaches full capacity. Accordingly, in order for the variable operating charge to be cost reflective (and provide better price signals to the WGM), a three-tier volumetric tariff is proposed for 2012-13, in addition to the tariff above when the plant is in Hot Standby.

These tariffs are set out in Figure 11.10 below, and include the margin payable to Veolia Water under the terms of the Alliance contract for the GCDP. The 2011-12 charges did not include any margin.

***Figure 11.10* – Variable Operating Charge - GCDP ($/ML) including margin**

Operating scenario	2011-12 Variable cost GSC ($/Ml)	2012-13 Variable cost GSC ($/Ml)
GCDP - 33%	677.55	1,014.79
GCDP - 66%	677.55	977.39
GCDP - 100%	677.55	958.69

Note: the 2012-13 interim forecast includes operator margin that was treated as a fixed cost in 2011-12 GSCs. This margin was not included in the above tables for energy, chemicals and waste as noted in each table. Hence the 2012-13 interim forecast Variable Operating Charge is higher than the sum of the amounts in those tables. These proposed charges include the margin payable to Veolia Water under the terms of the Alliance contract for the GCDP.

WCRWS

It is proposed to set two tariffs for Luggage Point AWTP: one that is set to recover the costs where the plant is operating at very low daily production rates (less than 10.5ML/day), and another when daily production exceeds this threshold. Figure 11.11 below presents the proposed charges, inclusive of the margin payable to Veolia Water under the terms of the operations contract. The 2011-12 charges do not include any margin.

Figure 11.11 **– Preliminary Variable Operating Charge - WCRWS ($/ML) including margin**

Location	Variable Charge ($/ML)	
	2011-12 GSC	2012-13 (interim forecast)
Bundamba AWTP	$ 366.28	$ 677.55
Luggage Point AWTP - Low Flow Days (<10.5ML/day)	$ 411.68	$ 810.06
Luggage Point AWTP - Other	$ 411.68	$ 726.00
WCRW Network	$ 112.88	$ 179.04

Note: the 2012-13 interim forecast includes operator margin that was treated as a fixed cost in 2011-12 GSCs. This margin was not included in the above tables for energy, chemicals and waste as noted in each table. Hence the 2012-13 interim forecast Variable Operating Charge is higher than the sum of the amounts in those tables. These proposed charges include the margin payable to Veolia Water under the terms of the operations contract.

11.5 Demand and capacity forecasts

The Information Requirements call for the capacity and forecast demand for each WTP, AWTP and the GCDP. The table below sets out the annual demand forecasts based on initial advice from the WGM.[44] These forecasts are the latest information available to Seqwater. Figure 11.12 below also provides the design capacity for each treatment asset (ML/day)

[44] For GCDP and WCRWS, an indicative forecast was provided by the WGM in September 2011, and Seqwater provided comments on this forecast.

Figure 11.12 - 2012-13 forecast demand and design capacity

Location	2012-13 demand (Ml/annum)	Design capacity (Ml/Day)
Banksia Beach WTP	1,460	5.00
Caboolture WTP	612	15.00
Dayboro WTP	132	1.40
Enoggera WTP	270	6.70
Esk WTP	219	1.20
Ewan Maddock WTP	1,800	20.00
Image Flat WTP	5,548	40.00
Jimna WTP	14	0.25
Kenilworth WTP	90	0.80
Kilcoy WTP	629	0.50
Landers Shute WTP	28,753	140.00
Linville WTP	14	0.30
Lowood WTP	2,365	19.50
Noosa WTP	3,943	45.00
North Pine WTP	33,537	250.00
Petrie WTP	6,312	45.00
Somerset Dam Township WTP	14	0.50
Woodford WTP	319	2.60
Amity Point WTP	120	1.40
Beaudesert WTP	620	5.20
Boonah-Kalbar WTP	496	4.50
Canungra WTP	78	0.40
Capalaba WTP	3,943	58.80
Dunwich WTP	153	1.40
Kooralbyn WTP	170	3.40
Molendinar WTP	49,813	180.00
Mt Crosby Eastbank WTP	81,585	700.00
Mt Crosby Westbank WTP	14,397	250.00
Mudgeeraba WTP	18,317	110.00
North Stradbroke Island WTP	9,490	60.00
Point Lookout WTP	271	3.00
Rathdowney WTP	26	0.40
South Maclean WTP	730	10.50
Bundamba AWTP	4,380	66.00
Gold Coast Desalination Plant	8,110	133.00
Luggage Point AWTP	3,858	66.00
TOTAL	**282,587**	**2247.75**

Notes: The Bundamba design capacity is before mothballing. Not all the plants have a water allocation that is consistent with the design capacity to treat i.e. Landers Shute capacity of 140Ml day but the allocation out of Baroon Pocket is equivalent to 100Ml/day over the reporting year.

Seqwater does not propose that these forecasts should be applied as a cap to the total Variable Operating Charge, nor should the forecasts be used as a threshold above which cost recovery must be sought under any review thresholds. To do so could expose Seqwater to volume risk contrary to the requirements of the Direction Notice, and/or lead to unnecessary complexity and increased cost of regulation.

Chapter 12 – Allowable Costs

The Price Regulator approved allowable costs totalling $20,489,037, of which $17,915,537 related to the expected expenditure in the 2011-12 year.

***Figure 12.1* – 2011-12 Allowable Costs approved by the Price Regulator**

	2011-12 QCA	Invoicing adjustment 2010/11	2011-12 Approved
Seqwater	$ 9,218,980	$ 2,573,500	$ 11,792,480
WaterSecure	$ 8,696,557	$ -	$ 8,696,557
	$ 17,915,537	**$ 2,573,500**	**$ 20,489,037**

As indicated in Figure 12.1 above, there was an adjustment for allowable costs to account for an additional $2.573M of allowable costs over and above the amount approved for 2010-11. Seqwater is also required to provide information to the Price Regulator on other allowable cost items for the 2010-11 year. These matters are outside the scope of the QCA review.

The actual allowable costs incurred in 2011-12 are to be recovered in the final Grid Service Charges. This section provides information about Seqwater's expected expenditure on those approved allowable costs in the 2011-12 year, and also presents Seqwater's proposed allowable costs for the 2012-13 year.

12.1 2011-12 Allowable Costs

As set out above, the Price Regulator approved Allowable costs for 2011-12 of $17.915M (exclusive of 2010-11 adjustments). This was below the aggregate proposed by Seqwater and WaterSecure, of $40.6M. Figure 12.2 below shows the break-up of the approved items.

***Figure 12.2* – Components of Allowable Costs**

2011-12 Allowable Costs Components ($M)			
	WaterSecure	Seqwater	TOTAL
Working Capital	$ 2.9	$ 3.4	$ 6.30
QWC Levy	$ 5.2	$ 5.2	$ 10.40
QCA Fee	$ 0.6	$ 0.6	$ 1.20
	$ 8.7	**$ 9.2**	**$ 17.90**

Amounts to not reconcile due to rounding.

In addition, the QCA approved for Seqwater the following items, pending further information being provided by Seqwater about the costs:

- Integration Costs;
- Participating in the Floods Commission of Inquiry; and
- Land and Property Tax.

The costs from flood damage to the WCRWS were also noted as allowable costs in WaterSecure's submission, although the QCA stated "flood damage costs can be incorporated into GSCs once the final amounts are ascertained under the review arrangements".[45] Accordingly, these costs are addressed in Chapter 13 of this submission.

With the exception of working capital, allowable costs are payable based on the actual costs incurred. At the time of making this submission, Seqwater only has information for part of the 2011-12 year, and proposes that the final allowable costs should be determined based on final data.

The current information relating to each of the allowable costs above is set out below, along with when it is expected final data will be available.

Working Capital

It is expected that working capital will continue to be charged as indicated in the QCA's final report, at $6.3M, without any adjustment.

QWC Levy

The QWC has indicated the QWC Levy to apply for 2011-12 will be $10.329M. Past practice has seen the QWC to revise this amount based at the end of year, with the difference passed through to the WGM directly by Seqwater.

Hence it is proposed to finalise this Allowable Cost now, on the basis that any adjustment (following any further advice from QWC) will be made directly between Seqwater and the WGM if required.

[45] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 104.

QCA Fee

Seqwater has been advised that the actual fee for 2011-12 is $1.292M. This amount is now considered final, and is slightly higher than the amount indicated in the QCA's Final report of $1.2M[46] and hence an adjustment will be required.

Integration costs

While most costs relating to the merger between Seqwater and WaterSecure occurred in the 2010-11 year, some costs have continued into 2011-12. These costs are ICT related costs which are currently forecast at $1.5M for 2011-12. These costs include project costs involved in running dual operating systems, the transfer of data and the physical locations of the operating environments.

Seqwater does not expect it will be in a position to lodge a final claim to the QCA for integration costs prior to the QCA publishing its final report. Instead, Seqwater proposes to submit a final claim when making its submission for 2013-14 GSCs.

Floods Commission of Inquiry

Seqwater has continued to incur costs in responding to this Inquiry since 1 July, 2011. These costs will come to an end on the 16th of March, 2012 when the final report is to be provided to Government.

It is currently expected that the 2011-12 costs for this period will be in the order of $4.0M based on 2011-12 Q2 estimate.

These costs are separate to the costs of implementing the findings of the Inquiry, and are dealt with as cost imposts under the QCA's review thresholds for 2011-12. These costs are set out in the next section.

Seqwater will endeavour to provide the QCA with final costs and supporting information in time for consideration by the QCA's final report.

[46] Comprising $06M for Seqwater and $0.6M for WaterSecure as indicated in the table above.

Land and Property Tax

Seqwater understands that it will not be liable for Land and Property Tax. The QCA has previously indicated that if this position changed, it could be claimed under the review threshold mechanism, as a change in Government Policy. No such change has occurred, and hence this cost is not considered in this submission.

12.2 2012-13 Allowable Costs

The Direction Notice specifies the manner in which allowable costs are to be dealt with for 2012-13, namely that:

> *Allowable Costs, with the exception of the QWC Levy, are once-off costs which cannot be reasonably foreseen, rather than costs that will be incurred on a recurring basis.*

The Information Requirements state that the QCA fee is an allowable cost, although Seqwater has interpreted this as applying to 2011-12 only.[47]

Seqwater also notes that the Review Thresholds provide for adjustments to be made under certain triggers or events, including changes in law or Government policy. The QCA is to make recommendations about changes to the Review Thresholds as part of this 2012-13 review. It is expected that the QCA will recommend arrangements that allow for Seqwater to recover costs that are uncertain, and outside its control, through a review process. On this basis, Seqwater has only included an allowance for the QWC levy as allowable costs for 2012-13, with other costs treated as fixed operating costs, such as the QCA fee, while the return on working capital is expected to be included into the capital charge.

Seqwater is yet to obtain formal advice of the QWC levy for 2012-13, and proposes that an interim amount of $10.587M based on an assumed 2.5% increase to the 2011-12 levy. Seqwater submits that this $10.587M provided as an allowable cost, to be adjusted at the end of the 2012-13 year against the actual levy cost for the year.

[47] QCA, SEQ Grid Service Charges 2012-13 Information Requirements, 2012, p 15.

Chapter 13 – Review of 2011-12 GSCs

Seqwater has incurred additional costs resulting from events that meet the review criteria and thresholds set by the QCA. Seqwater has not applied for a mid-year review arising from these changes, but instead proposes an end-of-period adjustment, and notes that QCA has indicated that application can be made up to 30 April, 2012 and incorporated into 2012-13 GSCs.

This section provides an initial indication of the events and claims known at this stage and currently under consideration for application for review prior to 30 April, 2012.

13.1 QCA review thresholds and procedures

The Market Rules include provisions that enable a review of bulk water charges in the event of a material change in the costs incurred by a Grid Service Provider. Such a review can be triggered as a result of either the QCA becoming aware of a material change or a Grid Service Provider or the WGM lodging an application, subject to the review thresholds.

The Direction Notice requires the QCA to consider any adjustments required due to an over or under-recovery of Grid Service Charges in 2011-12, as described in the Authority's Review Thresholds document. Seqwater understands this document to be the QCA's final report.[48]

The QCA recommended review thresholds for cost imposts at $0, with assessment to be undertaken at the end of the regulatory period unless the cost impact was 5% or more of the GSC.[49] The QCA also recommended that reviews should occur as part of the determination of 2012-13 bulk water charges:

> *... given the limited magnitude of the risks assumed by the GS[P]s, and having regard for the requirements to minimise the cost of regulation, it is considered that, unless a review event materially impacts a GS[P]'s within-year free cash flows, 2011-12 GSCs should be reviewed at the same time as 2012-13 GSCs are determined.* [50]

The QCA described the following events that could trigger a change to 2011-12 GSCs:

- a change in law or change in government policy;
- emergency events;

[48] In its final report, the QCA concluded that GSPs should remain exposed to the risk of over or under recovery of 2011-12 operating costs (refer p 156).

[49] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 159.

[50] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 146.

- change in demand or supply source;
- RAB adjustment;
- Change in actual cost of debt.

The QCA also set out the matters to be addressed in making an application for a review of GSCs, namely:

- demonstration of the business case for expenditure, including justification of the expenditure in terms of the GSP's approved strategic and operational plans;
- demonstration that the expenditure is the most cost-effective means of achieving the required outcome;
- demonstration of compliance with internal governance (including board approvals), business case approvals, procurement and project management processes and audit;
- where a significant emergency event has occurred, demonstration of how the additional costs are required to meet the requirements of the SEQ Water Grid Emergency Response Plan; and
- detailed supporting documentation enabling independent engineering review or other assessment of the reasonableness of capex or opex (with relevant details as indicated in earlier Chapters).

13.2 Timing issues

As set out above, the Direction Notice requires the QCA to consider any adjustments required due to an over or under-recovery of Grid Service Charges in 2011-12 in recommending 2012-13 GSCs.

Seqwater is required to make its submission for 2012-13 GSCs part way through the 2011-12 year, meaning that:

- the costs for events that have occurred in 2011-12 are not yet known in full; and
- other events may occur between now and 30 June, 2012, which of course cannot be included in this submission.

The QCA acknowledged this issue, and in its Information Requirements stated that:

> *... the Authority will include any relevant adjustments in Draft GSCs identified as at 29 February 2012 (when information returns are due), and will make further adjustments in the Final Report where necessary, to take account of adjustments known as at 30 April, 2012. Any subsequent adjustments should be made in any subsequent annual review.* [51]

Accordingly, Seqwater proposes to update these claims by 30 April, 2012 at which time it will provide a formal application to the QCA. Where possible, Seqwater will submit a final claim based on costs to date and forecast costs to 30 June, 2012. Nonetheless, Seqwater requests that the QCA accept updated information after 30 April, 2012 if this can be reasonably dealt with prior to issuing its final report two months later, on 30 June, 2012.

The following section provides a brief overview of the claims under consideration to date, in terms of the types of event.

[51] QCA, SEQ Grid Service Charges 2012-13 Information Requirements, 2012, p 16.

13.3 Likely claims – 2011-12 GSC review

Seqwater has identified a range of events and imposts that meet the review criteria. The table below provides a summary. Seqwater will review these items and prepare a detailed application for the final suite of claims.

The preliminary cost estimates set out in Figure 13.1 below are Seqwater's initial assessments of the cost impact over and above 2011-12 GSCs. Most costs relate to increase costs of inputs or additional contractors or consultants.

***Figure 13.1* – Summary of 2011-12 price review claims under consideration**

Type	Description	Preliminary estimate of cost impact $M
Change in law or government policy	Additional requirements under the Environmental Protection and Biodiversity Act for Banksia Beach WTP and borefield	0.2
	Changes in water quality standards required by the SEQ Water Grid Manager at Molindinar and Mudgeeraba WTPs	0.1
	Implementing the interim findings of the Floods Commission of Inquiry	1.8
	Increases to council waste charges	TBA
	Compliance with the new Disaster Readiness Amendment Bill	TBA
	Compliance costs following the implementation of the Koala Protection Policy	0.1
	Impacts on energy costs from the pass through of costs arising from the Renewable Energy (Electricity) Act 2000.	0.5
	Additional compliance costs arising from the Waste Reduction and Recycling Regulation (Qld) 2000	0.1
Changes in forecast demand for water	The forecast demands used to develop 2011-12 Variable Charges for the Luggage Point and Bundamba AWTPs are well above actual demand. This has meant that the plant has had to operate under start-stop mode to produce smaller daily volumes, increasing the energy and other costs for small production runs. Analysis shows that the actual variable costs to January 2012 at these plants has been around $0.5M higher than the variable charge revenue. This under-recovery is due to the increased costs from these short production runs which are a result of a change in WGMs from forecast. The annual impact could therefore be around $1.0M The box below provides more detail.	1.0
Emergency events	Post-flood water quality investigations	0.1
	Flood repair costs (operating costs).	TBA[52]

[52] Net of any insurance recoveries.

Cost impact – change in demand at Luggage Point

For 2011-12 GSC's, WaterSecure proposed a variable charge of $411.64 at Luggage Point AWTP based on a forecast demand of 7,300ML. As noted in their submission: *"Production volumes and plant operational scenario were agreed with the SEQ Water Grid Manager's Office and Responsible Ministers in December 2010."*[53]

The agreed forecast at that point in time was set out in Table 1 of WaterSecure's submission, and showed the volume for Luggage Point comprised 4,380ML (12ML/day) for Tarong Power Station and 2,920ML for Industrials (8ML/day). Subsequent to this submission, Seqwater understands that the WGM provided updated forecasts to the QCA. The forecast provided was a range between 2,773 to 6,928ML.

In its final report, the QCA acknowledged that WaterSecure's forecast variable operating costs for Luggage Point were based on the original information provided to it from the WGM, of an annual production of 7,300ML or 20ML/day: "*The WGM forecast a WCRW low demand scenario of 5,545ML for 2011-12, compared to a forecast volume of 14,600ML by WaterSecure. WaterSecure's variable operating costs shown in Table 5.18 are based on its assumed throughput. The Authority applied these unit rates in determining the total Variable Operating Charge."*

Seqwater has applied the approved $/ML charge for Luggage Point being $411.64/ML, as set out in Table 5.21 of the QCA's final report.[54]

However, the volumes requested by the WGM for 2011-12 to date have totalled 1,333ML, and at an average daily production rate of 6.2ML[55],compared to the high and low forecasts above and the 20ML/day that form the basis of the $411.

In its final report, the QCA acknowledged that variable costs are not necessarily linear with production: "*... as noted by Seqwater, usage/dosage rates and average unit costs for inputs may also be affected by changes in demand or supply sources. In other words, the link between demand and variable costs may not be linear and $/ML costs may change."* [56]

This is the case for the Luggage Point AWTP, as production of small, daily volumes involves start up and shut down costs that are not normally incurred when the plant is operating at higher production levels as would be the case at 20ML/day.

[53] WaterSecure (2011). Water Grid Service Charges for 2011-12. Submission to the Queensland Competition Authority. 31 March 2011. p 27.

[54] Note that this table has other prices called "Total Recommended 2011-12 (Minimum)" and "Total Recommended 2011-12 (Maximum). However these appear to simply be weighted averages across all WaterSecure plants and are not cost reflective. Accordingly These prices have not been applied to invoices. The charges specified for each plant have been applied instead.

[55] Based on actual production at Luggage Point for the period 1 July 2011 to 12 January 2012.

[56] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 151.

The QCA's review framework provided for the pass-through of additional costs arising from changes in volumes demanded by the WGM: *The Authority ... considered that the cost implication of changes in water volumes/source should be treated in the same manner as changes in law, Government policy and emergency events. In other words, the prudent and efficient costs resulting from changes in forecast demand or water sources should be passed through to GSPs as from the date the additional costs are incurred...* [57]

Seqwater intends to submit a price review application to the QCA in relation to the cost impacts from changes in demand for Luggage Point. A similar situation has arisen at the Bundamba AWTP, and Seqwater intends to also submit an application for this plant.

13.4 Adjustments for RAB and cost of debt

In its final report, the QCA stated it proposed to make adjustments to 2011-12 GSCs to account for changes in actual costs of debt and the revised RAB as required under the Direction Notice, and absent any change that had a material impact, the adjustments would be made at the same time as 2012-13 GSCs are determined.

The opening RAB for 2011-12 is provided by the Price Regulator, and is not addressed in this submission. Changes anticipated for the opening RAB are discussed in Chapter 8.

Changes to the cost of debt during 2011-12 are discussed in Chapter 9.

13.5 Commission of Inquiry final report

The Floods Commission of Inquiry is due to provide its final report on 16 March, 2012 and this may give rise to further measures and implementation actions that impact on Seqwater.

This may give rise to additional costs in 2011-12 and/or 2012-13.

Assuming such matters emerge, it is unlikely that Seqwater will be in a position to revise its forecasts of fixed operating costs with any accuracy for 2012-13 given the timeframes. Accordingly, these costs may be subject to a review application during 2012-13 to the extent those costs fall within that year.

Costs that occur within 2011-12 will be dealt with in the application to the QCA for price review for that year.

[57] QCA, *Final Report SEQ Grid Service Charges 2011-12*, (2011), p 151.