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2013 Annual Performance Report

Callide Bulk

October 2013

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Notes

All financial figures in this report are presented in nominal dollars.

Most of the financial figures in the QCA's final report on SunWater's irrigation pricing were presented in real dollars (\$2011). To convert the QCA report real dollars to nominal dollars, multiply by the following factors; these are based on the QCA's assumed inflation rate of 2.5% p.a.

Table 1 – Conversion Factors for real \$2011 to Nominal Dollars

	2013	2014	2015	2016	2017
Conversion Factor	1.051	1.077	1.104	1.131	1.160

Disclaimer

This report has been produced by SunWater, to provide information for client use only. The information contained in this report is limited by the scope and the purpose of the study, and should not be regarded as completely exhaustive. Permission to use or quote information from this report in studies external to the Corporation must first be obtained from the Chief Executive, SunWater.

Introduction

A recommendation from the 2013-17 review of SunWater's irrigation pricing was for SunWater to produce annual Network Service Plans (NSPs) to help keep customers informed throughout the pricing period. SunWater has decided to also produce this annual Performance Report to show how SunWater performed against the QCA targets for the year just completed.

SunWater values customer feedback and will publish all submissions and SunWater's responses on our website. Customers can provide their feedback via email or post at the following addresses:

Email: nspfeedback@sunwater.com.au

Post: NSP Feedback
PO Box 15536 City East
Brisbane Qld 4002

Water Usage

Table 2 - Water Usage

	No. of Customers	Water Entitlements ML	Available Water ML	Available Water %	Water deliveries ML	Water deliveries % of entitlement	Water deliveries % of available
Industrial		3,772	3,634	96%	3,528	94%	97%
Irrigation		18,106	14,148	78%	7,167	40%	51%
Urban		2,187	1,990	91%	999	46%	50%
Other		0	0		0		
SunWater		22	22	100%	21	97%	97%
Total	138	24,087	19,794	82%	11,715	49%	59%

QCA Assumed Water Usage for Irrigation 36.1%

QCA Assumed Water Usage for Total 52.0%

Routine Expenditure

Table 3 – Operating Expenditure

	2013 SunWater Actual	% of 2013 Target	2013-17 to date Actual	% of 2013-17 Target	2013-17 QCA Target
	\$'000	%	\$'000	%	\$'000
Operations (Excl. Elect.)	761	123%	761	24%	3,189
Preventative	264	95%	264	18%	1,441
Corrective	46	127%	46	25%	186
Electricity	9	132%	9	23%	38
Total Routine Expenses	1,080	115%	1,080	22%	4,855

Operations

Operation activities include the day-to-day costs of the administration and management of the scheme, water delivery and meeting compliance obligations. Specific activities include¹:

- Schedule and deliver water including processing water orders, monitoring of storage levels, releasing water, and managing river flows;
- Flood operations including emergency preparedness and implementation of Emergency Action Plans for the dam;
- Water quality monitoring including water quality sampling and monitoring of blue green algae;
- Compliance including ROP reporting and BOM reporting;
- Meter Reading;
- Administration of water accounts, billing and receipting payments;
- Customer management including enquiries and complaints and maintaining the customer service help desk;
- Environmental management including operation of fishways, reporting fish deaths, monitoring or noxious weeds, pests and contaminated land;
- Scheme management including licences and permits, rates, land management, planning and reporting;
- Insurance costs;
- Monitoring the security of assets and unauthorised access and trespass; and
- Manage public relations associated with the scheme.

The operations expenditure in 2013 was \$144k above the QCA target. The basis behind over expenditure in the operational activities for the year included:

- Insurance costs associated with the scheme were \$114k over the forecast.
- Flood operation through the radial gates contributed to the over expenditure which was not planned for in the operational budget.

Preventive Maintenance

Preventive maintenance is maintaining the ongoing operational performance and service capacity of physical assets to designed standard. Preventive maintenance is cyclical in nature with a typical interval of 12 months or less. Preventive maintenance activities are based on updated work instructions developed for operating the scheme and include an estimate of the resources required to implement that scope of work. Preventive maintenance includes²:

¹ Activities listed will not apply to all service contracts.

² Activities listed will not apply to all service contracts.

- Condition monitoring: The inspection, testing or measurement of physical assets to report and record its condition and performance for determination of preventive maintenance requirements. Assets which the condition is monitored regularly include pumps, electrical motors, valves, gates, switchboards, embankment, spillway, outlet works and associated equipment;
- Servicing: Planned maintenance activities normally expected to be carried out routinely on physical assets including valves, cranes, sump pumps and associated equipment; and
- Weed control is undertaken as part of preventative maintenance. This includes mowing, spraying and other activities to control weeds within the scheme.

Preventive maintenance was \$15k below the QCA’s target for 2013. Some work was not required due to flood conditions.

Corrective Maintenance

Corrective maintenance includes activities to correct unexpected failures or to return an asset to an acceptable level of performance or condition. While corrective maintenance is difficult to forecast with accuracy, such activities can be expected and need to be factored into expenditure forecasts. Forecasts include provision for labour, materials and plant hire.

The corrective maintenance forecast does not include any costs of damage arising from major unexpected events, such as floods. These costs are categorised as non-routine corrective maintenance which is discussed in the following section.

There are two types of corrective maintenance – scheduled and emergency²:

- Scheduled corrective maintenance (maintenance that can be routinely planned and scheduled)
 - Dams
 - Repair of control gates and valves
 - Repair walls, embankments and spillways
 - Repair of concrete structures
 - Weirs
 - Repair of control gates and valves
 - Repair walls and embankments
 - Repair of concrete structures
 - Repair of fishways
 - Barrages
 - Repair of control gates and valves
 - Repair walls, embankments
 - Repair of concrete structures
 - Repair of fishways
 - Roads
 - Repair of pot holes
 - Grade roads
 - Repair, replace and paint guide posts and signs
 - Gauging Stations
 - Repair of instrumentation
 - De-silt gauging weirs
 - Repair concrete structure
 - Repair instrumentation hut
 - Meters
 - Repair bulk water meters
 - Repair customer meters
- Emergency maintenance is maintenance that has to be carried out immediately to restore normal operation, to restore supply to customers or to meet a regulatory obligation (e.g. rectify a safety hazard). Emergency maintenance includes:

- Repair or correction of control valve faults and other equipment
- Response to theft or vandalism associated with scheme assets

Corrective maintenance was \$10k above the QCA's target for 2013. The exceptions with the corrective maintenance activities for the year included:

- The additional works required to clean out the Callide diversion channel due to excessive aquatic weed growth hindering water deliveries to the Kariboe creek section not supplied by Kroombit dam.

Electricity

Electricity costs were \$2k above QCA target in 2013 due to increases in regulated electricity prices being higher than the 12.5% increase allowed by the QCA for 2013 and also the additional operational activities associated with flood management activities in early 2013.

Non-Routine Expenditure

SunWater has developed a whole of life strategy around the replacement and maintenance of its asset portfolio which is based on the concept of optimised life. The key drivers in this approach are the risk and condition of each asset. The current condition of an asset drives an estimate of the future work required to ensure an asset continues to be able to provide the required level of service into the future. SunWater maintains a program of asset inspections and condition assessments which continually updates our knowledge of asset condition. This information feeds into the annual review of the renewals program, the most recent of which was completed in February 2013; items requiring immediate maintenance or replacement are included in the budget for the following year.

While the immediate program for the next year's budget is well defined; the further into the planning timeline, the more uncertain the estimates become. Consequently, the program of works is not a specific forecast of when individual projects are expected to be executed but rather it is portfolio level estimate of works based on the best-available risk and condition information for the service contract as a whole. This information feeds into calculation of the annuity to fund renewals. Having an annuity funding arrangement acknowledges that a long-term view of renewals spend is required to ensure adequate funding and to address issues such as inter-generational equity.

The QCA targets were set against an estimated program of works from the 2010-11 year. While this was the best estimate of expected work at the time, there has been significant project churn in the three years since this estimate was made. This can mean that, in some cases, the QCA's funding allowance for renewals work does not cover the total expenditure required to maintain asset condition to the required standard. In addition, there are unexpected events, such as floods, that are not allowed for in the QCA's annuity funding allowance. Notwithstanding these points, SunWater aims to limit renewals expenditure to the QCA's targets over the 2013-17 price path in order to manage the annuity balance to reasonable levels.

Table 4 – Non-Routine Expenditure

	2013 SunWater Actual	% of 2013-17 Target	2013-17 to date Actual	% of 2013-17 Target	2013-17 QCA Target
	\$'000	%	\$'000	%	\$'000
Annuity Funded					
R&E - Annuity Funded	54		54		1,888
Corrective	250		250		0
Other	0		0		14
Non-direct	227		227		820
Annuity Funded Total	530	19%	530	19%	2,723
Non-Annuity Funded					
R&E - Non-Annuity Funded	0		0		n/a
Non-direct	0		0		n/a
Total Non-Annuity Funded	0		0		n/a

R&E – Annuity Funded

At this stage SunWater expects to contain costs over the five years of the regulatory period in line with the QCA target.

Replacing Gas Boards for Gauging Station

Self contained gas purge smart system is purchased to replace the current boards that were due for replacement.

Replacement justification:

1. Gauging stations reliability is very critical as SunWater rely on their outcomes (especially during flood event) and most of them are in remote locations.
2. The old system has been there for over 40 years and currently, replacements parts are no longer available.
3. The old system will have higher maintenance cost to run.
4. The old system is more prone to error in reading due to system leakage.
5. The old system consumes more energy

The old system produces less accurate readings.

Inspection and repairs to float gate Callide dam

During an annual inspection water was observed seeping through a crack on the spillway floor. Further investigations were undertaken and a dye test confirmed that the water was coming from a 300mm interconnecting pipe between gate pillars 3 and 4. An engineer internally inspected the adjoining 900 mm drain pipe to ensure that the damage was localised to the 300mm pipe. The pipe was surveyed using CCTV where the crack was identified and accurately located.

This project is to investigate an apparent breakage / broken pipe which runs underneath the spillway at Callide Dam and to subsequently repair the crack in the spillway. The breakage believed to be in the gate float pipework.

Justification of this project:

The dam worked as designed during the January flood operation. The damaged pipeline is encased in concrete so it is unlikely that further structural damage would occur due to ingress or egress of water. The only issue is exposure of the reinforcing in the spillway floor to corrosive elements. This is to be avoided as it may lead to significant damage in the future.

Install Vibrating Wire Piezometers at Callide

Seepage increase in 4-5 areas of the embankment was identified by the operator during routine embankment inspection. Then a senior design engineer and a geologist were sent to do further inspection which revealed a need to install additional monitoring equipment at the dam. Further investigation by taking samples of the clay core and foundation material, and desktop assessment of stability with a proposal for rectification works (if required) will be undertaken as part of this project.

Justification of this project:

As Callide Dam has just been at its full supply level in 2011, in which year the operator had identified increase of the seepage, it is very important to obtain critical information (e.g. clay core and foundation material samples, and pore pressures from different locations) in order to gain more understanding on the embankment condition to justify if further works is required to ensure the embankment stability. Also installing a series of vibrating wire piezometers will enable future pore pressures trending.

Corrective Maintenance

The “Annuity-funded Corrective” direct spend in 2013 was related to flood damage activities associated with Callide and Kroombit Dam and Callide Creek weir. All flood damage work was procured through tendering processes.

The majority of the work was:

Callide Dam – inspection, investigation and rectification of issue flood damage to the gate variable counterweights.

On 25th January 2013, Callide Dam spillway gates were operated due to heavy rainfall caused by ex-cyclone Oswald. During closing phase, the float of the left gate twisted and came off its guides. The left gate was able to be closed down at the time, but it has been decided that the left gate should not be operated until this issue is rectified. Thus, it is urgent to rectify the issue to

make sure the left gate can be operated in the next flood. Total cost including indirect and overhead in 2013 Financial Year was \$391k.

Tasks that have been completed in the 2013 Financial Year include:

- Site Inspection.
- Scope development.
- Option study of how to restrain the gate in the closed position while the variable counterweight is removed.
- Manufacturing the locking mechanism and then install.
- Root cause analysis (this task is still ongoing now).

This project is still ongoing.

Kroombit Dam – reinstatement of flood damage to the downstream protection works, hand rails, and valve pit cleaning.

Due to the flood on the 2013 January Australian Day Weekend, minor damage was experienced at Kroombit Dam. This project is to rectify the damages. Total cost including indirect and overhead in 2013 Financial Year was \$75k.

Tasks that have been done in 2013 Financial Year:

- Site Inspection
- Scope development
- Reinstatement of the downstream protection works
- Reinstatement of the hand rails
- Valve pit cleaning.

This project was completed in 2013 Financial Year.

Callide Creek Weir – reinstatement of the downstream protection works.

Due to the flood on the 2013 January Australian Day Weekend, minor damages have been experienced by Callide Creek Weir. This project is to rectify the damages so that the weir can be operational as soon as possible. Total cost including indirect and overhead in 2013 Financial Year was \$6k.

Tasks that have been done in 2013 Financial Year:

- Site Inspection
- Scope development
- Reinstatement of the downstream protection works

This project was completed in 2013 Financial Year.

Other

There was no other Annuity-funded expenditure in 2013.

R&E – Non Annuity

There was no other Non-annuity funded expenditure in 2013.

Annuity Balance

The 2013 annuity balance is shown below.

Table 5 – Annuity Balance

	2013	2014	2015	2016	2017
	\$'000	\$'000	\$'000	\$'000	\$'000
Opening Balance	(658)	(867)			
Annuity Income	371	370	370	374	380
Actual Spend	(530)				
Interest	(49)				
Closing Balance	(867)				

Appendix – Total Expenditure by Expense Type

Table 6 – Expenditure for Activity by Type

	2013 SunWater Actual \$'000	% of 2013 Target %	2013-17 to date Actual \$'000	% of 2013-17 Target %	2013-17 QCA Target \$'000
ROUTINE EXPENSES					
Operations					
Labour	159		159		663
Materials	2		2		8
Contractors	15		15		33
Other	281		281		1,022
Non-direct	304		304		1,464
Operations Total	761	123%	761	24%	3,189
Preventative					
Labour	85		85		441
Materials	2		2		46
Contractors	6		6		38
Other	10		10		10
Non-direct	162		162		906
Preventative Total	264	95%	264	18%	1,441
Corrective					
Labour	3		3		52
Materials	6		6		16
Contractors	30		30		5
Other	0		0		5
Non-direct	6		6		107
Corrective Total	46	127%	46	25%	186
Electricity	9	132%	9	23%	38
Total Routine Expenses	1,080	115%	1,080	22%	4,855
NON-ROUTINE EXPENSES					
Annuity Funded					
R&E - Annuity Funded	54		54		1,888
Corrective	250		250		0
Other	0		0		14
Non-direct	227		227		820
Total Annuity Funded Non-Routine	530	19%	530	19%	2,723
TOTAL REGULATED EXPENSES	1,610		1,610		7,578
Non-Annuity Funded					
R&E - Non-Annuity Funded	0		0		n/a
Non-direct	0		0		n/a
Total Non-Annuity Funded	0		0		n/a
TOTAL EXPENSES	1,610		1,610		n/a