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2013 Annual Performance Report

Nogoa 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		29,390	29,408	100%	11,781	40%	40%
Irrigation		160,121	160,556	100%	132,320	83%	82%
Urban		8,536	7,304	86%	5,868	69%	80%
Other		522	523	100%	203	39%	39%
SunWater		32,053	35,012	109%	14,804	46%	42%
Total	380	230,622	232,803	101%	164,976	72%	71%

QCA Assumed Water Usage for Irrigation 71.4%

QCA Assumed Water Usage for Total 83.2%

Routine Expenditure

Table 3 – Routine 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.)	1,762	94%	1,762	18%	9,738
Preventative	244	92%	244	18%	1,362
Corrective	204	104%	204	20%	1,021
Electricity	12	91%	12	16%	76
Total Routine Expenses	2,222	94%	2,222	18%	12,198

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 of \$1,762k in 2013 was \$112k below the QCA target. The major exceptions and highlights with operation activities for the year included:

- Prolonged over-topping of Fairbairn Dam and the downstream weirs substantially reduced the need for river operations over the year.
- Insurance premiums of \$375K were \$165K higher than the QCA estimates,

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

¹ Activities listed will not apply to all service contracts.

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:

- 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 of \$244k was \$21k below the QCA's target for 2013. The major highlights with preventative maintenance activities for the year included:

- Chemical weed control at Fairbairn Dam and Nogoia Mackenzie Weirs - \$25k,
- Monthly Inspections of Fairbairn Dam - \$52k and weirs \$10k.

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

² Activities listed will not apply to all service contracts.

- 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 expenditure of \$204k was \$8k above the QCA's target for 2013. The major corrective maintenance activities for the year included:

- Investigation and repairs to the Tartrus Weir release gate which failed -\$26k,
- Repairs to the 4 electric bbq's at the Fairbairn Dam picnic area - \$22k
- Repairs to the culverts adjacent to the boat ramp at Fairbairn Dam. - \$16k
- Install Armco Rail to prohibit public access to the right bank tower of Fairbairn Dam - \$16k
- Install new limit switches on the outlet works at Fairbairn Dam - \$15k.

Electricity

Electricity costs were \$1k less than the QCA target in 2013 despite increases in regulated electricity prices being higher than the 12.5% increase allowed by the QCA for 2013. This is in line with normal annual variability in electricity costs for this service contract.

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	561		561		1,235
Corrective	62		62		0
Other	30		30		5
Non-direct	432		432		799
Annuity Funded Total	1,085	53%	1,085	53%	2,038
Non-Annuity Funded					
R&E - Non-Annuity Funded	36		36		n/a
Non-direct	64		64		n/a
Total Non-Annuity Funded	100		100		n/a

R&E – Annuity Funded

The annuity funded R&E spend was \$561k in 2013, excluding non-directs. Projects included:

12NMA48 - OE01 (2012) Fairbairn Dam Spillway Bridge Emergency Works and Options Analysis

The 2013 spend was \$501k, including non-directs.

Flooding at the dam during January/February 2011 prompted SunWater staff to engage Cardno to undertake a bridge condition assessment to ensure that the bridge and bridge piers were not damaged. The Cardno report stated that the bridge and piers were in good condition and that no refurbishment work was required.

After recent sightings of 'over load limit' trucks crossing the spillway bridge at Fairbairn, SunWater engaged a RoadTek Inspector to assess the current condition of the bridge structure. This inspection was conducted on the long weekend ending 11 June 2012. Preliminary findings from the RoadTek inspector has indicated that the bridge is in very poor condition and the traffic should be restricted to loads of not more than 10 tonnes, whereas its previous rating was 18 tonnes. A condition rating of 4.5 out of 5 (5 being 'failed') was given by RoadTek.

SunWater engaged Parsons Brinkerhoff (PB) to undertake an options study on optimum management options for the bridge. PB engineers reviewed the RoadTek report but determined that the bridge was in good condition by applying engineering theory and calculations. They recommended that a deflection survey should be done to confirm their theory. This was done in August 2012, after which a traffic management plan was detailed restricting the bridge to one lane of traffic.

13NMA01- Inspection - 5 Year Comprehensive - Fairbairn Dam

The 2013 spend was \$150k, including non-directs.

The inspection was done in August 2012. Areas such as the Spillway could not be inspected because of the dam spilling (approx. 300mm). The 'Bullring' conduit could not be inspected because of water leaking past one or both of the Guard Gates therefore making access into the conduit unsafe. Comprehensive inspections are a requirement of the dam safety condition schedule attached to the dam.

12NMA04 - Refurbish Right Bank Outlet Works - Design (See also BI0822 & BI1046) - Fairbairn Dam RB Outlet Works

The 2013 spend was \$49k, including non-directs.

The Resource Operating Plan for the Fitzroy Basin requires releases of 1500 – 1600ML/day through the river outlet works at Fairbairn Dam (this excludes the Selma and Weemah channel releases). The right bank diversion outlet structure, known as the Bullring, vibrated dramatically and excessive turbulence was created within the structure when releases exceed 880ML/d. The vibration and turbulence was believed to be the main contributing factor to leaks appearing on the southern side in 1997/8. It was believed that the vibration could seriously damage the structural integrity of the bullring, limiting the operating range of the dam and leaving SunWater unable to meet the ROP requirements. SunWater engineers investigate the cause of the vibrations and determined that the outer wall and walkway should be moved to prevent discharges from impacting upon it. A new access walkway was installed 20-3-13 by Mobb's Engineering, SunWater Emerald have installed a ramp leading onto the newly positioned walkway as well as a permanent walkway support.

Replace Two Failed Meters Nogoa River – meters were upgraded in accordance with AS4747 and AM14. Only direct costs associated with the flow meter were borne by SunWater. All costs associated with the pipework were the customer's responsibility.

Corrective Maintenance

The annuity funded corrective maintenance spend was \$62k, excluding non-directs, for flood damage activities at Fairbairn Dam, Bingegang and Tartrus Weirs. The QCA did not have any allowance for these activities.

11NMA33 - FD01 (2011) Fairbairn Dam Flood Repairs

The 2013 corrective maintenance spend was \$21k, including non-directs.

The floods during 2011 damaged the spillway floor and batter slabs at Fairbairn dam. Works are in progress.

12NMA10 - FD01 (2011) Repair Undermining D/S of Spillway Training Wall Bingegang Weir

The 2013 corrective maintenance spend was \$54k, including non-directs.

The erosion under the spillway training wall arose from floods during early 2010. The downstream river bed erosion had been occurring over time but has been exacerbated with recent flooding. Floods during 2011 removed rock protection from the end of the d/stream right bank rock wall. Rock placement was done. Job completed as per plan 10 Dec, spillway cleared of Debris and now fully functional.

12NMA08 - FD01 (2011) Tartrus Weir Flood Damage Repairs - Erosion & Protection Works

The 2013 corrective maintenance spend was \$16k, including non-directs.

Flooding during early 2011 significantly damaged the downstream right bank rock protection that is now beginning to undermine the concrete anchor beam to which the rock mattresses are attached. The purpose of this project is to refurbish the protection works downstream of the weir. On the left bank repair rock mattresses by backfilling rock material and replacing wire lids and rewiring. On the right bank, work would consist of the reinstatement of the missing rock protection and protection and stabilisation of the downstream edge of the erosion protection. Works have not been done due to Tartrus Weir overtopping.

Other

09EIA31 Investigate Fabridam Post Deflation Incident 23 Nov 2008 - Bedford Weir

The "Annuity-funded Other" spend was associated with investigations into the Bedford Weir Fabridam incident. There were also significant legal costs associated with this incident that have not been allocated to the service contract.

R&E – Non Annuity

11NMA46 - Tartrus Weir Turtleway Project

Waterway barriers, such as weirs and barrages, can limit the upstream and downstream movement of freshwater turtles. As there is a lack of adequate information on suitable turtle transfer options, DERM (environment) expressed interest in pilot projects for the development of turtleways, to address barriers to movement as turtles have not been shown to use fishways effectively. Investigation and design have been completed. It was decided that the project is impractical. Project was closed.

Annuity Balance

The 2013 annuity balance is shown below.

Table 5 – 2013 Annuity Balance

	2013	2014	2015	2016	2017
	\$'000	\$'000	\$'000	\$'000	\$'000
Opening Balance	(853)	(1,559)			
Annuity Income	443	454	455	468	470
Actual Spend	(1,085)				
Interest	(64)				
Closing Balance	(1,559)				

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	350		350		2,584
Materials	25		25		210
Contractors	176		176		354
Other	478		478		1,202
Non-direct	733		733		5,388
Operations Total	1,762	94%	1,762	18%	9,738
Preventative					
Labour	75		75		415
Materials	1		1		49
Contractors	20		20		35
Other	4		4		26
Non-direct	143		143		837
Preventative Total	244	92%	244	18%	1,362
Corrective					
Labour	50		50		242
Materials	20		20		147
Contractors	28		28		123
Other	5		5		10
Non-direct	100		100		499
Corrective Total	204	104%	204	20%	1,021
Electricity	12	91%	12	16%	76
Total Routine Expenses	2,222	94%	2,222	18%	12,198
NON-ROUTINE EXPENSES					
Annuity Funded					
R&E - Annuity Funded	561		561		1,235
Corrective	62		62		0
Other	30		30		5
Non-direct	432		432		799
Total Annuity Funded Non-Routine	1,085	53%	1,085	53%	2,038
TOTAL REGULATED EXPENSES	3,307		3,307		14,236
Non-Annuity Funded					
R&E - Non-Annuity Funded	36		36		n/a
Non-direct	64		64		n/a
Total Non-Annuity Funded	100		100		n/a
TOTAL EXPENSES	3,407		3,407		n/a