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# 2015 Annual Network Service Plan

## Burdekin Bulk

June 2014

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## Notes

All financial figures in this NSP 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 allow comparison to this NSP, convert the QCA final report real dollar figures to nominal dollars by, multiplying the QCA \$real figures by the following factors, which are based on the QCA's assumed inflation rate of 2.5% p.a.

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

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
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. These annual NSPs will focus on both routine expenditure (opex) and non-routine expenditure. In particular, the NSPs will cover:

- past performance for routine opex and non-routine expenditure,
- forecast opex and non-routine for the approaching year, and
- the long-term outlook for material non-routine spend.

SunWater published draft 2015 NSPs for each of 30 Service Contracts during March 2014. This was followed by consultation meetings held throughout regional Queensland over March and April. These discussions involved many customers and other stakeholders at Irrigation Advisory Committee meetings and other forums. Valuable feedback was received from customers that can be found, along with SunWater's responses, at <http://www.sunwater.com.au/schemes/nsp/annual-nsp-and-performance-reports>.

The feedback has led to changes being made to SunWater's plans for 2015. While the plans for 2015 are now complete, customer feedback is always welcome via email or post using one of the following addresses:

Email: [nspfeedback@sunwater.com.au](mailto:nspfeedback@sunwater.com.au)

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

## Water Data

**Table 2 –Water Data**

	<b>No. of Customers</b>	<b>Water Entitlements ML</b>
Industrial		17,547
Irrigation		634,473
Urban		10,533
Other		8
SunWater		417,031
<b>Total</b>	<b>397</b>	<b>1,079,592</b>
QCA Assumed Water Usage for Irrigation		80.6%
QCA Assumed Water Usage for Total		55.8%

**Table 3 – Revenue<sup>1</sup>**

	<b>2013 SunWater Actual \$'000</b>	<b>2014 SunWater Budget \$'000</b>	<b>2015 SunWater Budget \$'000</b>
Irrigation Revenue*	2,175	1,967	1,237
Industrial and Urban*	143	142	154
Other Revenue	52	51	51
<b>Total Revenue</b>	<b>2,371</b>	<b>2,160</b>	<b>1,443</b>

\* Bulk water charges have not been unbundled from Distribution charges therefore a portion of the Distribution revenue is attributable to the Bulk service contract.

The budget revenue for 2014 has been updated from the draft NSP to be consistent with SunWater's final 2013/14 SCI submission.

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<sup>1</sup> The 2015 budget figures form the basis for SunWater's SCI submission, which is yet to be agreed with SunWater's shareholding Ministers. While the budgets are not expected to change from here, there is always the possibility of further directions from Government and these may have budget implications.

## Routine Expenditure

**Table 4 – Routine Operating Expenditure<sup>2</sup>**

	<b>2013 SunWater Actual</b>	<b>% of 2013 Target</b>	<b>2014 SunWater Budget</b>	<b>% of 2014 Target</b>	<b>2015 SunWater Budget</b>	<b>% of 2015 Target</b>
	\$'000	%	\$'000	%	\$'000	%
Operations (Excl. Elect.)	2,035	79%	2,618	97%	3,118	116%
Preventative	242	68%	346	93%	372	100%
Corrective	338	152%	217	94%	233	100%
Electricity	89	93%	110	108%	129	118%
<b>Total Routine Expenses</b>	<b>2,705</b>	<b>83%</b>	<b>3,291</b>	<b>97%</b>	<b>3,852</b>	<b>113%</b>

The budget routine spend is 13% above the QCA's target for 2015 however the budget falls to 99% of target when the above-QCA increases in insurance and electricity are taken into account. There was \$320k of budgeted costs associated with the Giru Benefitted Area which was transferred from the bulk service contract to distribution.

### Operations

The operations budget in 2015 is 16% above the QCA target, however this is entirely due to the increases in insurance costs being much greater than allowed for by the QCA. Increased premiums followed flood events that have occurred in the past few years in Queensland. This cost over-run is beyond SunWater's control. The budget for operations drops to 99% of the QCA target when the insurance over-run is taken into account.

### Preventive Maintenance

Preventive maintenance is budgeted in line with the QCA's target for 2015.

### Corrective Maintenance

Corrective maintenance is budgeted in line with the QCA's target for 2015.

### Electricity

Electricity costs are budgeted 18% higher than the QCA target in 2015 due to announced increases in electricity prices being much higher than the increases allowed for by the QCA. The QCA had allowed for tariff increases of around 30% over the first three years of the price path whereas actual increases have been around 50%. Resultant cost over-runs are beyond SunWater's control.

SunWater will continue to review tariffs each year to identify the best tariff for the expected future operations.

<sup>2</sup> The 2015 budget figures form the basis for SunWater's SCI submission, which is yet to be agreed with SunWater's shareholding Ministers. While the budgets are not expected to change from here, there is always the possibility of further directions from Government and these may have budget implications.

## 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 2014; 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 a snapshot of the estimated program of works taken during the 2010-11 year. While this was the best estimate of expected work at the time, there has been significant project churn 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.

### 2015 Non-Routine Budget

The budget non-routine spend for 2015 is shown in the table below, along with the actual spend for 2013 and the budget spend for 2014. Overall, it is expected that the 2013-17 spend for non-routine can be controlled to meet the five-year QCA target within the framework of SunWater's Reliability Centred Maintenance (RCM) approach and risk based prioritisation.

**Table 5 – Non-Routine Expenditure**

	<b>2013 SunWater Actual</b>	<b>% of 2013-17 Target</b>	<b>2014 SunWater Budget</b>	<b>% of 2013-17 Target</b>	<b>2015 SunWater Budget</b>	<b>% of 2013-17 Target</b>
	\$'000	%	\$'000	%	\$'000	%
<b>Annuity Funded</b>						
R&E - Annuity Funded	410		442		707	
Corrective	0		0		0	
Other	10		0		0	
Non-direct	185		185		137	
<b>Annuity Funded Total</b>	<b>605</b>	<b>23%</b>	<b>627</b>	<b>24%</b>	<b>844</b>	<b>33%</b>
<b>Non-Annuity Funded</b>						
R&E - Non-Annuity Funded	237		0		0	
Non-direct	287		0		0	
<b>Total Non-Annuity Funded</b>	<b>525</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>

The details for the four major projects planned for 2015 are provided below:

**Table 6 – Non-Routine Projects 2015**

Project Title	Project Scope	2015 Budget (\$'000)
Refurbish Hydraulics System (excluding rams) - Procure, Install, Commission - CLARE WEIR	The hydraulic refurbishment involves inspecting and replacing seals that have failed or have been assessed to fail prior to the next scheduled refurbishment, changing out of the hydraulic oil if required, checking and refurbishing or replacing hydraulic lines, pump units, non-return valves and electrical system.	284
Supply, Install, Commission for PLC and SCADA system - CLARE WEIR	The Upgrade of PLCs will involve replacement of all PLC hardware to the current SunWater Standard compliant M340 PLCs and the conversion of Concept OR Modsoft Lite programs to IEC 61131-3 compliant Unity Pro Software. UnityPro has been SunWater's standard process PLC programming software for approximately three years and is fully licensed and supported by Schneider Electric Australia.	81
Refurbish hydraulic cylinders 1 - 60 - CLARE WEIR	The cylinder refurbishment involves inspecting and replacing hydraulic seals that have failed or have been assessed to fail prior to the next scheduled refurbishment, inspecting and refurbishing or replacing failed or damaged cylinders and the cylinder shafts.	62
Replace Winch (Complete) - CLARE WEIR	The winch on the crane is to be replaced to ensure safe ongoing use.	61



Other works		356
Total		844

## Annuity Balance

The estimated 2014 and 2015 annuity balances are shown below; the annuity income shown has been set by the QCA until the end of the current price path in 2017. SunWater aims to limit the annuity spend to the QCA's targets over the 5-year price path in order to manage the annuity balance to reasonable levels.

The impact of the budget non-routine spend on the annuity balance for 2015 is shown in the following table. The balances for 2014 and 2015 are estimates only at this stage because the final actual spends for 2014 and 2015 will not be known until after each of these years is completed.

**Table 7 – Annuity Balances**

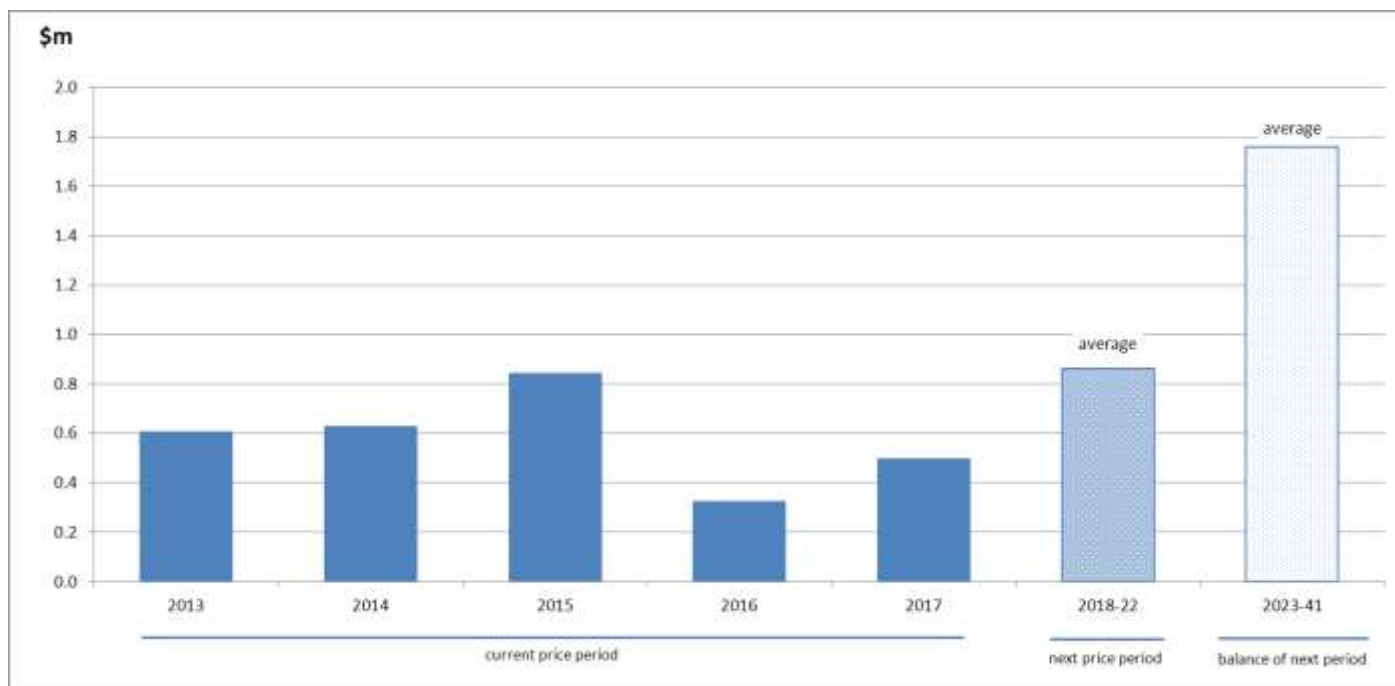
	<b>2013</b>	<b>2014*</b>	<b>2015*</b>	<b>2016</b>	<b>2017</b>
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Opening Balance</b>	4,805	5,108	5,422		
<b>Annuity Income</b>	548	558	567	592	596
<b>Spend</b>	(605)	(627)	(844)		
<b>Interest</b>	360	383	406		
<b>Closing Balance</b>	5,108	5,422	5,552		

\* All 2014 and 2015 figures are subject to change once actual spend is known.

## Overview of Annuity Funded Non-Routine Projects 2013-41

The renewals annuity is calculated over a 20-year planning period; given that the following pricing period ends in 2022, the estimated renewals spend out until 2041 will affect the next pricing review. The estimated renewals expenditure out to 2041 is shown in the chart following.

Figure 1 – Annuity Expenditure 2013-41



All material renewals items out until 2041 are discussed in the sections following. Materiality is defined as >10% of the present value of the period in question. SunWater will develop options analyses for all material items in the annuity calculation planning period. These reports will be tailored to suit project complexity and budget, with detailed options analyses being completed within the current and following 5-year pricing periods and high-level options analyses for the 20-year period beyond the next price path. The materiality tests will be applied each year as part of annual planning process. Given that there will be project churn, some items will no longer require options analysis in future years and new items may join the list.

## Material Projects 2015-17

The evenness in the spread of estimated project costs means there are no projects which exceed the materiality threshold for this service contract for the 2015-17 period. In the draft report the project “Refurbish Clare Hydraulics” had qualified for an options analysis but is now under the materiality threshold.

## Material Projects 2018-22

The evenness in the spread of estimated project costs means there are no projects which exceed the materiality threshold for this service contract for the 2018-22 period. In the draft report the project “Burdekin Falls 20-yr safety review” had qualified for an options analysis but is now under the materiality threshold.

## Install Functional Outlet Works for End of System Flow Stg 2 (ROP) - GIRU WEIR

Year: 2018

Current estimate: \$569k

Options analysis completed: No

See below.

### **Upgrade Outlet Works Construct and Commission Stg 2 (ROP) - VAL BIRD WEIR**

Year: 2018

Current estimate: \$758k

Options analysis completed: No

The Burdekin Resource Operations Plan (ROP) requires that the outlet works at Val Bird and Giru Weirs be upgraded. Preliminary Design Report has been completed. The next step for this project is to do detailed design. Once the detailed design is approved, it will be followed up by tendering and then the construction.

## **Material Projects 2023-41**

The program of works for 2023-41 should be viewed as indicative at this stage and will be refined as the next pricing review draws closer.

### **Replace High Voltage System - BURDEKIN FALLS DAM**

Year: 2023

Current estimate: \$3.3m

Options analysis completed: No

The replacement is required because of end of physical life for this asset. Cable condition to be regularly assessed through an ongoing program of electrical testing to monitor ageing and deterioration to better determine replacement timelines. An options analysis will be produced prior to implementation. Options are limited to maintaining assets in service for as long as possible and then replacing on a like for like basis or using alternative distribution methods such as overhead, if this is possible or practical.

### **Replace Cable - BURDEKIN FALLS DAM**

Year: 2024

Current estimate: \$3.0m

Options analysis completed: No

The project will be required because of end of physical life for this asset. Cable condition to be regularly assessed through an ongoing program of electrical testing to monitor ageing and deterioration to better determine replacement timelines. An options analysis will be produced prior to implementation. Options are limited to maintaining assets in service for as long as possible and then replacing on a like for like basis or using alternative distribution methods such as overhead, if this is possible or practical.

## Appendix – Total Expenditure by Expense Type

Table 8 – Expenditure for Activity by Type

	2013 SunWater Actual \$'000	% of 2013 Target %	2014 SunWater Budget \$'000	% of 2014 Target %	2015 SunWater Budget \$'000	% of 2015 Target %
<b>ROUTINE EXPENSES</b>						
<b>Operations</b>						
Labour	435		649		247	
Materials	13		59		39	
Contractors	12		27		1,297	
Other	685		563		905	
Non-direct	891		1,320		629	
<b>Operations Total</b>	<b>2,035</b>	<b>79%</b>	<b>2,618</b>	<b>97%</b>	<b>3,118</b>	<b>116%</b>
<b>Preventative</b>						
Labour	45		101		27	
Materials	20		13		10	
Contractors	49		34		249	
Other	37		1		22	
Non-direct	91		197		64	
<b>Preventative Total</b>	<b>242</b>	<b>68%</b>	<b>346</b>	<b>93%</b>	<b>372</b>	<b>100%</b>
<b>Corrective</b>						
Labour	65		53		16	
Materials	56		51		50	
Contractors	77		9		127	
Other	6		0		3	
Non-direct	134		104		38	
<b>Corrective Total</b>	<b>338</b>	<b>152%</b>	<b>217</b>	<b>94%</b>	<b>233</b>	<b>100%</b>
<b>Electricity</b>	<b>89</b>	<b>93%</b>	<b>110</b>	<b>108%</b>	<b>129</b>	<b>118%</b>
<b>Total Routine Expenses</b>	<b>2,705</b>	<b>83%</b>	<b>3,291</b>	<b>97%</b>	<b>3,852</b>	<b>113%</b>
<b>NON-ROUTINE EXPENSES</b>						
<b>Annuity Funded</b>						
R&E - Annuity Funded	410		442		707	
Corrective	0		0		0	
Other	10		0		0	
Non-direct	185		185		137	
<b>Total Annuity Funded Non-Routine</b>	<b>605</b>	<b>23%</b>	<b>627</b>	<b>24%</b>	<b>844</b>	<b>33%</b>
<b>TOTAL REGULATED EXPENSES</b>	<b>3,310</b>		<b>3,918</b>		<b>4,695</b>	
<b>Non-Annuity Funded</b>						
R&E - Non-Annuity Funded	237		0		0	
Non-direct	287		0		0	
<b>Total Non-Annuity Funded</b>	<b>525</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>
<b>TOTAL EXPENSES</b>	<b>3,834</b>		<b>3,918</b>		<b>4,695</b>	