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# 2016 Annual Network Service Plan

## Dawson Bulk

June 2015

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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**

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## 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 2016 NSPs for each of thirty Service Contracts during March 2015. 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>

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 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

	No. of Customers	Water Entitlements ML
Industrial		3,668
Irrigation		51,668
Urban		2,178
Other		0
SunWater		4,223
<b>Total</b>	<b>156</b>	<b>61,737</b>
QCA Assumed Water Usage for Irrigation		60.0%
QCA Assumed Water Usage for Total		70.7%

**Table 3 –Revenue<sup>1</sup>**

	<b>2013 SunWater Actual \$'000</b>	<b>2014 SunWater Actual \$'000</b>	<b>2015 SunWater Budget \$'000</b>	<b>2016 SunWater Budget \$'000</b>
Irrigation Revenue*	214	760	798	867
Irrigation CSO	1	0	0	0
Industrial and Urban*	1,643	1,982	2,034	2,237
Other Revenue	6	40	5	5
<b>Total Revenue</b>	<b>1,864</b>	<b>2,783</b>	<b>2,837</b>	<b>3,108</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.

<sup>1</sup> The budget figures form the basis for SunWater’s SCl 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 Actual</b>	<b>%of 2014 Target</b>	<b>2015 SunWater Budget</b>	<b>%of 2015 Target</b>	<b>2016 SunWater Budget</b>	<b>%of 2016 Target</b>
	\$'000	%	\$'000	%	\$'000	%	\$'000	%
Operations (Excl. Elect.)	647	100%	625	92%	759	112%	750	112%
Preventative	135	68%	95	46%	204	99%	182	89%
Corrective	60	67%	70	74%	93	98%	128	136%
Electricity	15	45%	25	70%	22	57%	22	53%
<b>Total Routine Expenses</b>	<b>858</b>	<b>88%</b>	<b>814</b>	<b>80%</b>	<b>1,077</b>	<b>106%</b>	<b>1,081</b>	<b>107%</b>

Routine expenditure is expected to be 7% over the QCA target in 2016.

### Operations

The operations budget is 12% above the QCA target in 2016; mainly as a result of increases in insurance costs being much greater than allowed for by the QCA.

### Preventive Maintenance

Preventive maintenance is currently budgeted 11% (\$23K) below the QCA's target for 2016.

### Corrective Maintenance

Corrective maintenance is budgeted 36% (\$34k) above the QCA's target for 2016, reflecting a forecast change in resourcing from preventative to corrective.

### Electricity

Electricity costs are budgeted at 47% below the QCA target in 2015. This is due to expected lower than average pumping to Moura Off-stream Storage and is despite the QCA limiting estimated tariff increases to around 35% over the first four years of the price path when actual increases have been over 50%.

<sup>2</sup> The 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 and 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.

## Non-Routine Budget

The budget non-routine spend for 2016 is shown in the table below, along with the actual spend for 2014 and the budget spend for 2015. Overall, it is expected that the 2013-17 budget 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. There have been some corrective works in this service contract to repair flood damage; corrective works are unplanned and were not allowed in the QCA's targets.

**Table 5 – Non-Routine Expenditure**

	2013 SunWater Actual	% of 2013-17 Target	2014 SunWater Actual	% of 2013-17 Target	2015 SunWater Budget	% of 2013-17 Target	2016 SunWater Budget	% of 2013-17 Target
	\$'000	%	\$'000	%	\$'000	%	\$'000	%
<b>Annuity Funded</b>								
R&E - Annuity Funded	(86)		105		376		387	
Corrective	41		113		0		0	
Other	0		0		0		0	
Non-direct	94		93		99		98	
<b>Annuity Funded Total</b>	<b>49</b>	<b>4%</b>	<b>311</b>	<b>26%</b>	<b>475</b>	<b>40%</b>	<b>486</b>	<b>41%</b>
<b>Non-Annuity Funded</b>								
R&E - Non-Annuity Funded	0		3		0		0	
Non-direct	0		0		0		0	
<b>Total Non-Annuity Funded</b>	<b>0</b>	<b>n/a</b>	<b>4</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 2016 are provided below:

**Table 6 – Non-Routine Projects 2016**

Project Title	Project Scope	2016 Budget (\$'000)
Engineering option analysis study to reinstate weir to operational condition - Response to customer request - ORANGE CREEK WEIR	During one of the Dawson Valley IAC meetings, SunWater advised that as Orange Creek Weir was not a part of the ROP and had passed its original design life, the current maintenance strategy was to run the asset to failure with no planned refurbishment or replacement in the current or future price paths. However, the IAC requested SunWater engage an independent consultant to assess the condition the weir and foundations, and investigate options and costs for an upgrade. This information will then to be presented to the committee for a decision on whether the irrigators would be willing to include these costs in the future price path.	187
Supply, Install, Commission for PLC and SCADA system - MOSS PUMP STATION	A SCADA system is utilised at MOSS Pump Station to control its operation. Due to the age of the control system, replacement is required as many parts are obsolete and no longer supported by the manufacturer. As sourcing replacement parts is becoming increasingly difficult, replacement is considered the most prudent option.	135
Design, manufacture the bulkhead gate & refurbish regulating gates - THEODORE WEIR	The regulating gates at Theodore Weir were found to be corroded during the last 5-Yearly Inspection. Refurbishment was recommend-ed but in order to do so a bulkhead gate is required to block off the outlet while the regulating gates are removed for servicing.	64
14DVA08 Upgrade computer of SCADA network for Neville Hewitt Weir - Install, Commission - NEVILLE HEWITT WEIR	A SCADA system is available at Neville Hewitt Weir to control the fishlock operation and outlet works. The control station at the weir is scheduled for replacement as many parts have become obsolete. Without support from the manufacturer, sourcing of replacement parts has become difficult.	31
Meter Replacement - DAWSON RIVER DISTRIBUTION	Based on SunWater's meter strategy, we use a weighted average for meter replacement costs on a life span of 20 years. This will be a conservative annual occurrence.	24
Other works	Various smaller replacement and refurbishment projects.	45
Total		486





## Annuity Balance

The estimated 2015 and 2016 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 2016 is shown in the following table. The balances for 2015 and 2016 are estimates only at this stage because the final actual spends for 2015 and 2016 will not be known until after each of these years is completed.

**Table 7 – Annuity Balances**

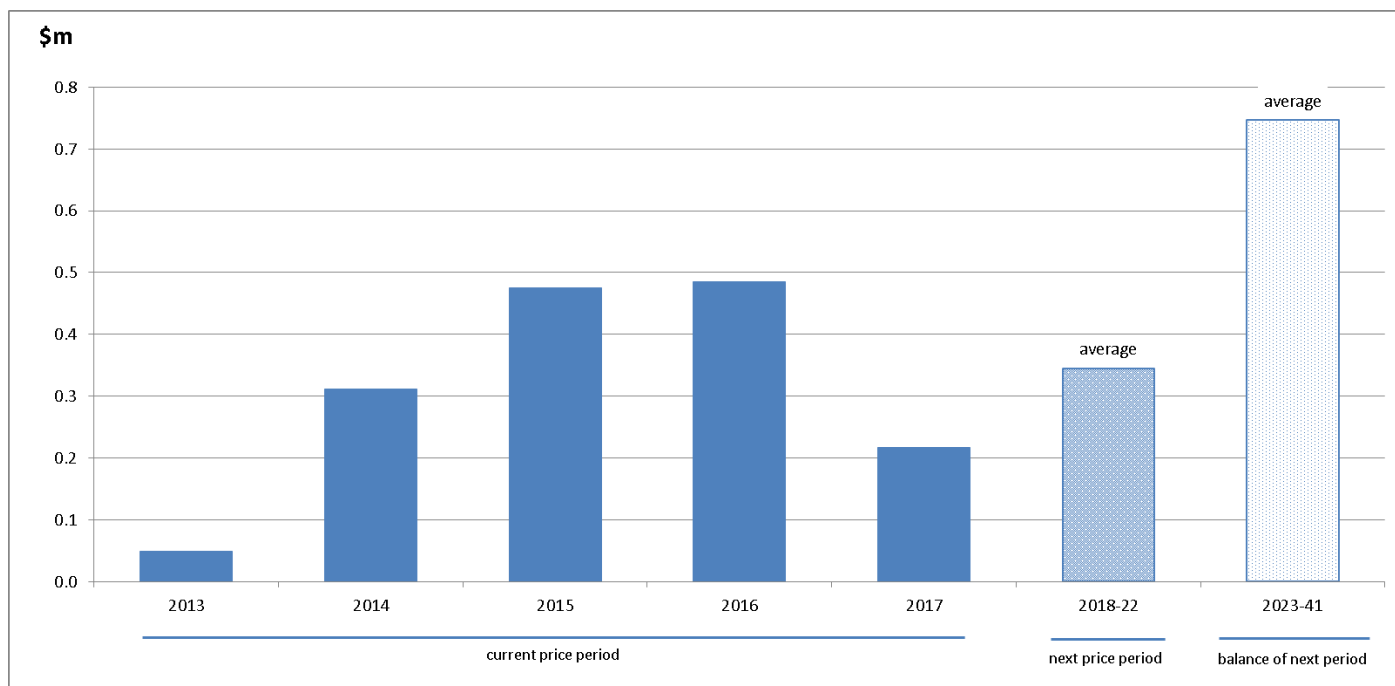
<b>ANNUITY</b>	<b>2013</b>	<b>2014</b>	<b>2015*</b>	<b>2016</b>
	\$'000	\$'000	\$'000	\$'000
<b>Opening Balance</b>	1,875	1,919	1,706	1,339
<b>Annuity Income</b>	(47)	(45)	(20)	(7)
<b>Spend</b>	(49)	(311)	(475)	(486)
<b>Interest</b>	140	144	128	100
<b>Closing Balance</b>	1,919	1,706	1,339	947

\* All 2015 and 2016 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 2016-17

### Engineering option analysis study to reinstate OCW to operational condition - ORANGE CREEK WEIR

Year: 2016

Current estimate: \$187k

Options analysis completed: Yes

During one of the Dawson Valley IAC meetings, SunWater advised that as Orange Creek Weir was not a part of the ROP and had passed its original design life, the current maintenance strategy was to run the asset to failure with no planned refurbishment or replacement in the current or future price paths. However, the IAC requested SunWater engage an independent consultant to assess the condition the weir and foundations, and investigate options and costs for an upgrade. This information will then to be presented to the committee for a decision on whether the irrigators would be willing to include these costs in the future price path.

## 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.

## 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 Hydraulic System - NEVILLE HEWITT WEIR

Year: 2030

Current estimate: \$528k

Options analysis completed: No

The scheduled replacement of the hydraulic system at Neville Hewitt Weir is based on the standard asset life. However, the final timing will be determined via five-yearly inspections and/or based on potential operational problems reported by operators.

### Replace 1200 Dia B/Fly Valve - MOURA WEIR

Year: 2038

Current estimate: \$736k

Options analysis completed: No

The scheduled replacement of the 1200mm diameter Butterfly Valve at Moura Weir is based on the standard asset life. However, the final timing will be determined via five-yearly inspections and/or based on potential operational problems reported by operators.

### Replace 1 Cumec Flygt Submersible Pump - MOSS PUMP STATION

Year: 2040

Current estimate: \$732k

Options analysis completed: No

The scheduled replacement of the 1 cumec Flygt Submersible pump at Moura Offstream Storage Pump Station is based on the standard asset life. However, the final timing will be determined via five-yearly inspections and/or based on potential operational problems reported by operators.

## Appendix – Total Expenditure by Expense Type

Table 8 – Expenditure for Activity by Type

	2013 SunWater Actual \$'000	%of 2013 Target %	2014 SunWater Actual \$'000	%of 2014 Target %	2015 SunWater Budget \$'000	%of 2015 Target %	2016 SunWater Budget \$'000	%of 2016 Target %
<b>ROUTINE EXPENSES</b>								
<b>Operations</b>								
Labour	178		152		118		145	
Materials	1		2		20		11	
Contractors	6		5		215		93	
Other	112		187		167		158	
Non-direct	350		278		239		342	
<b>Operations Total</b>	<b>647</b>	<b>100%</b>	<b>625</b>	<b>92%</b>	<b>759</b>	<b>112%</b>	<b>750</b>	<b>112%</b>
<b>Preventative</b>								
Labour	45		31		48		40	
Materials	4		3		3		3	
Contractors	3		0		56		40	
Other	(1)		3		6		6	
Non-direct	84		57		91		93	
<b>Preventative Total</b>	<b>135</b>	<b>68%</b>	<b>95</b>	<b>46%</b>	<b>204</b>	<b>99%</b>	<b>182</b>	<b>89%</b>
<b>Corrective</b>								
Labour	15		16		22		19	
Materials	8		8		12		12	
Contractors	5		15		17		52	
Other	0		1		0		0	
Non-direct	32		30		42		45	
<b>Corrective Total</b>	<b>60</b>	<b>67%</b>	<b>70</b>	<b>74%</b>	<b>93</b>	<b>98%</b>	<b>128</b>	<b>136%</b>
<b>Electricity</b>	<b>15</b>	<b>45%</b>	<b>25</b>	<b>70%</b>	<b>22</b>	<b>57%</b>	<b>22</b>	<b>53%</b>
<b>Total Routine Expenses</b>	<b>858</b>	<b>88%</b>	<b>814</b>	<b>80%</b>	<b>1,077</b>	<b>106%</b>	<b>1,081</b>	<b>107%</b>
	2013 SunWater Actual \$'000	%of 2013-17 Target %	2014 SunWater Actual \$'000	%of 2013-17 Target %	2015 SW Budget \$'000	%of 2013-17 Target %	2016 SW Budget \$'000	%of 2013-17 Target %
<b>NON-ROUTINE EXPENSES</b>								
<b>Annuity Funded</b>								
R&E - Annuity Funded	(86)		105		376		387	
Corrective	41		113		0		0	
Other	0		0		0		0	
Non-direct	94		93		99		98	
<b>Total Annuity Funded Non-Routine</b>	<b>49</b>	<b>4%</b>	<b>311</b>	<b>26%</b>	<b>475</b>	<b>40%</b>	<b>486</b>	<b>41%</b>
<b>TOTAL REGULATED EXPENSES</b>	<b>907</b>		<b>1,126</b>		<b>1,552</b>		<b>1,567</b>	
<b>Non-Annuity Funded</b>								
R&E - Non-Annuity Funded	0		3		0		0	
Non-direct	0		0		0		0	
<b>Total Non-Annuity Funded</b>	<b>0</b>	<b>n/a</b>	<b>4</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>
<b>TOTAL EXPENSES</b>	<b>907</b>		<b>1,129</b>		<b>1,552</b>		<b>1,567</b>	