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# 2016 Annual Network Service Plan

## Boyne 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

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 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		30,453
Irrigation		9,142
Urban		2,755
Other		480
SunWater		1,625
<b>Total</b>	<b>161</b>	<b>44,455</b>
QCA Assumed Water Usage for Irrigation		48.9%
QCA Assumed Water Usage for Total		53.9%

**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	359	374	276	337
Industrial and Urban	79	65	67	67
Other Revenue	2	0	2	2
<b>Total Revenue</b>	<b>440</b>	<b>439</b>	<b>345</b>	<b>406</b>

<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.)	1,065	396%	121	43%	389	139%	325	117%
Preventative	30	31%	38	39%	98	99%	101	103%
Corrective	12	51%	0	0%	30	119%	61	238%
Electricity	0	n/a	0	n/a	0	n/a	0	n/a
<b>Total Routine Expenses</b>	<b>1,107</b>	<b>285%</b>	<b>159</b>	<b>39%</b>	<b>517</b>	<b>128%</b>	<b>487</b>	<b>121%</b>

The budget routine spend is 219% above the QCA's target for 2015 however the budget falls below target when the above-QCA increases in insurance are taken into account.

### Operations

The operations budget in 2016 is 17% 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 below the QCA target when the insurance over-run is taken into account.

### Preventive Maintenance

Preventive maintenance is slightly above the QCA's target for 2016.

### Corrective Maintenance

Corrective maintenance is budgeted 138% above the QCA's target for 2016. The additional spend in 2016 is expected due to ongoing costs associated with managing the spillway damage insurance claim.

### Electricity

No electricity costs planned for this service contract in 2016.

<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.

## 2016 Non-Routine Budget

The budget non-routine spend for 2016 is shown in the below table, along with the actual spend for 2014 and the budget spend for 2015. Overall, the 2013-17 non-routine spend will exceed the five-year QCA target. There has been significant corrective works in this service contract to repair flood damage; corrective works are unplanned and were not allowed for in the QCA's targets.

**Table 5 – Non-Routine Expenditure**

	2013 SunWater Actual \$'000	%of 2013-17 Target %	2014 SunWater Actual \$'000	%of 2013-17 Target %	2015 SunWater Budget \$'000	%of 2013-17 Target %	2016 SunWater Budget \$'000	%of 2013-17 Target %
<b>Annuity Funded</b>								
R&E - Annuity Funded	33		94		46		42	
Corrective	932		966		326		1,008	
Other	8		0		0		0	
Non-direct	966		616		155		155	
<b>Annuity Funded Total</b>	<b>1,938</b>	<b>347%</b>	<b>1,676</b>	<b>300%</b>	<b>526</b>	<b>94%</b>	<b>1,204</b>	<b>216%</b>
<b>Non-Annuity Funded</b>								
R&E - Non-Annuity Funded	0		0		0		0	
Non-direct	0		0		0		0	
<b>Total Non-Annuity Funded</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>

The details for the major projects planned for 2016 are provided below:

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

<b>Project Title</b>	<b>Project Scope</b>	<b>2016 Budget (\$'000)</b>
Boondooma Dam Spillway Flood Damage Repairs - BOONDOOMA DAM	During the 2011 Flood Event, the spillway was heavily scoured on the downstream side. An options study is being produced to investigate the best design for the project.	1,146
Repair pitting on dissipater walls (2014DS 6.1a) - BOONDOOMA DAM	The dissipaters from the outlets are used to reduce environmental damage from releases. The dissipater walls are showing signs of pitting to depths of 10-15mm with reinforcement exposed in some places. This should be repaired before it worsens and compromises structural integrity.	24
Replace Meter Program (2 per year) - Boyne River	Some meters have been assessed as being in an unacceptable condition. They require replacement to maintain the accuracy of meter reads in accordance with SunWater's Metering Policy.	21
Asset Revaluation - BBY - Boyne River	It is necessary to conduct an infrastructure asset revaluation on Bulk Water assets by updating the schedule of rates, indirect cost percentage and Bill of Materials, updating replacement costs on infrastructure assets, and updating the cost of planned replacement items	8
15BYR05 Update EAP for Boondooma Dam as a Statutory Requirement	This project is to update the Emergency Action Plan in accordance with changes proposed following the 2011 Brisbane floods and SunWater's internal review.	4
Other works	Various replacement and refurbishment projects.	1
<b>Total</b>		<b>1,204</b>



## 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. Any insurance payouts in relation to flood damage, will also be credited as annuity revenue upon receipt.

**Table 7 – Annuity Balances**

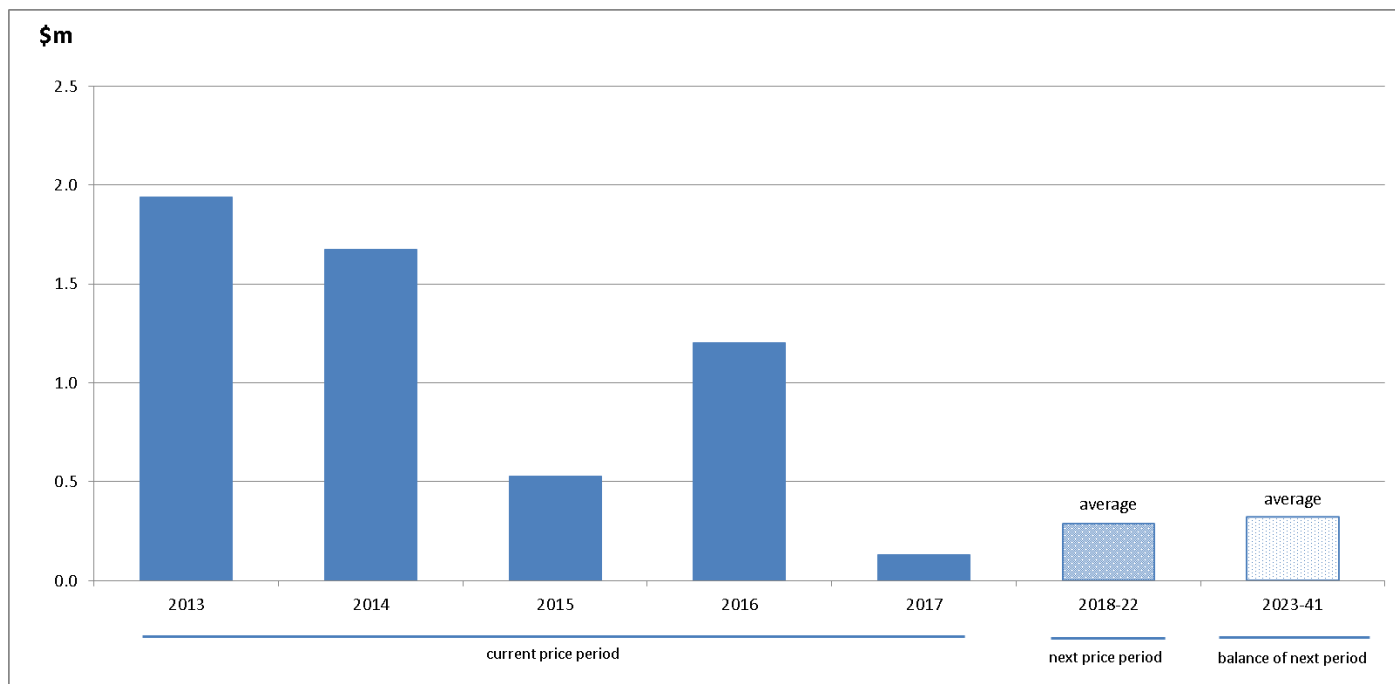
<b>ANNUITY</b>	<b>2013</b>	<b>2014</b>	<b>2015*</b>	<b>2016</b>
	\$'000	\$'000	\$'000	\$'000
<b>Opening Balance</b>	(170)	(2,108)	(3,929)	(4,733)
<b>Annuity Income</b>	13	13	17	17
<b>Spend</b>	(1,938)	(1,676)	(526)	(1,204)
<b>Interest</b>	(13)	(158)	(294)	(355)
<b>Closing Balance</b>	(2,108)	(3,929)	(4,733)	(6,275)

\* 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. The Boondooma spillway repairs dominates planned future spend at an estimated \$155m spent over 2017-19.

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

### Boondooma Spillway Flood Damage Repairs - BOONDOOMA DAM

Year: 2017-19

Current estimate: \$149.3m

Options analysis completed: No

Substantial damage occurred to the Boondooma spillway in both the 2010-11 and 2013 floods. The future plan includes a project to implement the preferred engineering solution at an estimated cost of \$149m. SunWater has not yet made a decision as to the preferred business strategy and is continuing to work with insurers and key stakeholders. The insurance claim is still being developed. The \$149m is the current best estimate for repairs and an options study is currently nearing completion with assessment of the preferred option to be determined later in the year.

A proportion of these costs may be covered by insurance, however the amount to be returned is uncertain and insurance claims of this nature can take years to settle. The difference between the cost of repairs and the insurance returns will be funded from the annuity and will impact prices. A HUF of 90% in the Boyne scheme means that the majority of the cost shortfall will not be apportioned to medium priority customers such as irrigators.

## **Material Projects 2018-22**

The only material project for 2018-22 is the Boondooma spillway repairs covered above.

## **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 Cables & Cableways - install, commission - BOONDOOMA DAM**

Year: 2032

Current estimate: \$458k

Options analysis completed: No

The scheduled replacement of cables and cableways at Boondooma Dam is based on the standard asset life, but is subject to condition and risk assessments and an options analysis before it can proceed.

### **20yr Dam Safety Review - BOONDOOMA DAM**

Year: 2039

Current estimate: \$623k

Options analysis completed: No

Boondooma Dam is a category 1 referable structure and the 20 Year Dam Safety Review is required for Queensland Government Regulatory Compliance. The review is a procedure for systematically assessing the safety of a dam after its original construction. It is a fresh engineering assessment of the integrity of all elements of a dam. It usually incorporates a:

- current failure impact assessment,
- detailed review of structural, hydraulic, hydrologic and geotechnical design aspects,
- review of historical operational performance,
- review of surveillance reports,
- comprehensive inspection of the dam, and
- comparison of the standards used for building and upgrading the dam against current design standards.

Given this requirement is mandatory, an options analysis will not be completed.

### **Replacement of Sealer in upstream slope to specifications detailed in scoping project of 2012 - BOONDOOMA DAM**

Year: 2040

Current estimate: \$360k

Options analysis completed: No

The scheduled replacement of the joint sealant on the upstream face of Boondooma Dam is based on the standard asset life, but is subject to condition and risk assessments and an options analysis before it can proceed.

### **Replace Guard Valve No 1 - BOONDOOMA DAM**

Year: 2041

Current estimate: \$462k

Options analysis completed: No

The scheduled replacement of Guard Valve No. 1 at Boondooma Dam is based on the standard asset life, but is subject to condition and risk assessments and an options analysis before it can proceed.

## 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	118		77		55		41	
Materials	3		3		1		1	
Contractors	3		211		35		22	
Other	693		(306)		186		159	
Non-direct	249		135		113		102	
<b>Operations Total</b>	<b>1,065</b>	<b>396%</b>	<b>121</b>	<b>43%</b>	<b>389</b>	<b>139%</b>	<b>325</b>	<b>117%</b>
<b>Preventative</b>								
Labour	10		13		17		17	
Materials	1		0		1		1	
Contractors	0		0		46		43	
Other	0		1		0		0	
Non-direct	18		23		34		40	
<b>Preventative Total</b>	<b>30</b>	<b>31%</b>	<b>38</b>	<b>39%</b>	<b>98</b>	<b>99%</b>	<b>101</b>	<b>103%</b>
<b>Corrective</b>								
Labour	3		0		9		18	
Materials	1		0		0		0	
Contractors	2		0		4		3	
Other	0		0		0		0	
Non-direct	6		0		17		40	
<b>Corrective Total</b>	<b>12</b>	<b>51%</b>	<b>0</b>	<b>0%</b>	<b>30</b>	<b>119%</b>	<b>61</b>	<b>238%</b>
<b>Electricity</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>
<b>Total Routine Expenses</b>	<b>1,107</b>	<b>285%</b>	<b>159</b>	<b>39%</b>	<b>517</b>	<b>128%</b>	<b>487</b>	<b>121%</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	33		94		46		42	
Corrective	932		966		326		1,008	
Other	8		0		0		0	
Non-direct	966		616		155		155	
<b>Total Annuity Funded Non-Routine</b>	<b>1,938</b>	<b>347%</b>	<b>1,676</b>	<b>300%</b>	<b>526</b>	<b>94%</b>	<b>1,204</b>	<b>216%</b>
<b>TOTAL REGULATED EXPENSES</b>	<b>3,045</b>		<b>1,835</b>		<b>1,044</b>		<b>1,691</b>	
<b>Non-Annuity Funded</b>								
R&E - Non-Annuity Funded	0		0		0		0	
Non-direct	0		0		0		0	
<b>Total Non-Annuity Funded</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>
<b>TOTAL EXPENSES</b>	<b>3,045</b>		<b>1,835</b>		<b>1,044</b>		<b>1,691</b>	