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# Annual Network Service Plan

## Mareeba Bulk Supply

April 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 to nominal dollars multiply by the following factors, which are based on the QCA's assumed inflation rate of 2.5% p.a.

**Table 1 – Conversion Factors for Nominal-to-Real Dollars**

<b>Year</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Conversion Factor</b>	0.952	0.929	0.906	0.884	0.862

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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 operating expenditure (opex) and renewals and enhancements (R&E) expenditure. In particular, the NSPs will cover:

- current year performance for opex and R&E,
- forecast opex and R&E for the approaching year, and
- the long-term outlook for material R&E spend.

This is the first annual NSP that SunWater has produced. Given that it is being published in the first year of the new price path, and the 2013 year is incomplete, there is no actuals data reported in the performance tables. Also, very few options analyses have been completed to date as the annual planning for renewals and enhancements discussed in this NSP was completed just prior to publishing.

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

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

## Past<sup>1</sup> and Forecast Performance

The tables in the following sections show the QCA targets with planned water use and spend for the current year and future years. Budgets for future years are based on the current draft budget at the time of consultation and are therefore subject to change.

### Water Usage

**Table 2 - Water Usage**

	<b>WAE</b>	<b>2013 QCA Forecast (ML)</b>	<b>2014 QCA Forecast (ML)</b>
Total	150,469	90,883	90,883

<sup>1</sup> As this is the first year of the 5-year price period, this NSP has the current year and following year figures only; future NSPs will also report on the past year performance against target and budget.

Table 3 – Operating Expenditure

	2013		2014	
	QCA Target (\$'000)	SunWater Budget (\$'000)	QCA Target (\$'000)	SW Draft Budget <sup>2</sup> (\$'000)
Operations	782	846	813	879
Preventive Maintenance	195	205	203	208
Corrective Maintenance	24	25	25	26
Electricity	6	6	6	4
Total	1,007	1,082	1,047	1,117

**Operations**

The operations budget in 2014 is \$66k above the QCA target due to insurance premiums rising significantly more than anticipated in the QCA target for insurance.

**Preventive Maintenance**

Preventive maintenance is budgeted in line with the QCA's target for 2014.

**Corrective Maintenance**

Corrective maintenance is budgeted in line with the QCA's target for 2014.

**Electricity**

Electricity costs are budgeted below the QCA target in 2014 due to expected operating conditions. The prices paid for this reduced electricity consumption will be much higher than the 12.5% and 7% increases allowed by the QCA in 2013 and 2014.

<sup>2</sup> SunWater draft budget figures as at the time of consultation. Budget figures for the following financial year are not locked down until late in the financial year prior.

## Renewals and Enhancements

R&E annuity expenditure is forecast to be \$111k above target for 2014 and over the full 5-year price period the estimated expenditure is \$436k above the QCA target.

**Table 4 – R&E Expenditure (excl. dam safety & other)**

2013		2014		5 year price period (2013-17)	
QCA Target (\$'000)	SunWater Budget (\$'000)	QCA Target (\$'000)	SW Draft Budget (\$'000)	QCA Target (\$'000)	SunWater Estimate <sup>3</sup> (\$'000)
-	296	89	200	432	868

The renewals annuity income has been set by the QCA until the end of the current price path in 2017. SunWater will aim to limit the R&E expenditure to the QCA's targets over the current price path in order to manage the annuity balance to reasonable levels. The impact of the draft budget R&E spend on the annuity balance for 2014 is shown in the following table.

**Table 5 – Annuity Balance 2014**

2014 Annuity Income (\$'000)	2014 Draft Budget Annuity Spend (\$'000)	Estimated Impact on Annuity Balance (\$'000)
108	(200)	(92)

<sup>3</sup> Actual figures will replace budget figures in the forecast as each year of the price period is completed. R&E forecasts and estimates are subject to change as planning is refined throughout the price period.

The details for the major projects planned for 2014 are provided below:

**Table 6 – R&E Projects 2014**

Project Title	Project Scope	2014 Draft Budget (\$'000)
5yr Dam Comprehensive Inspection (by Dec 2013) - TINAROO DAM	The five yearly comprehensive dam safety inspection will be carried in accordance with Queensland Dam Safety Management Guidelines (2002), and Dam Safety Condition Schedule 11 applied by the dam safety regulator in Queensland.	126
Design and replace mesh floor, refurbish rusted roofs, paint walls & ceilings, and remove asbestos and obsolete pumps - TINAROO DAM	The condition assessment by local technical officer and Annual Dam Safety Inspection 2012 (section 2.7.4) identified workplace health hazard and dam safety issues with respect to corrosion and obsolete pumps in the valve house for irrigation outlet and recommended these items to be designed and replaced.	37
Remove asbestos putty in the windows frame, Design mesh floor and Replace mesh floor & rusted door and hinge and paint - TINAROO DAM	The condition assessment by local technical officer and Annual Dam Safety Inspection 2012 (section 2.7.4) identified workplace health hazard and dam safety issues with respect to corrosion and obsolete pumps in the valve house for river outlet and recommended these items to be designed and replaced.	28
Other minor works		9
Total		200

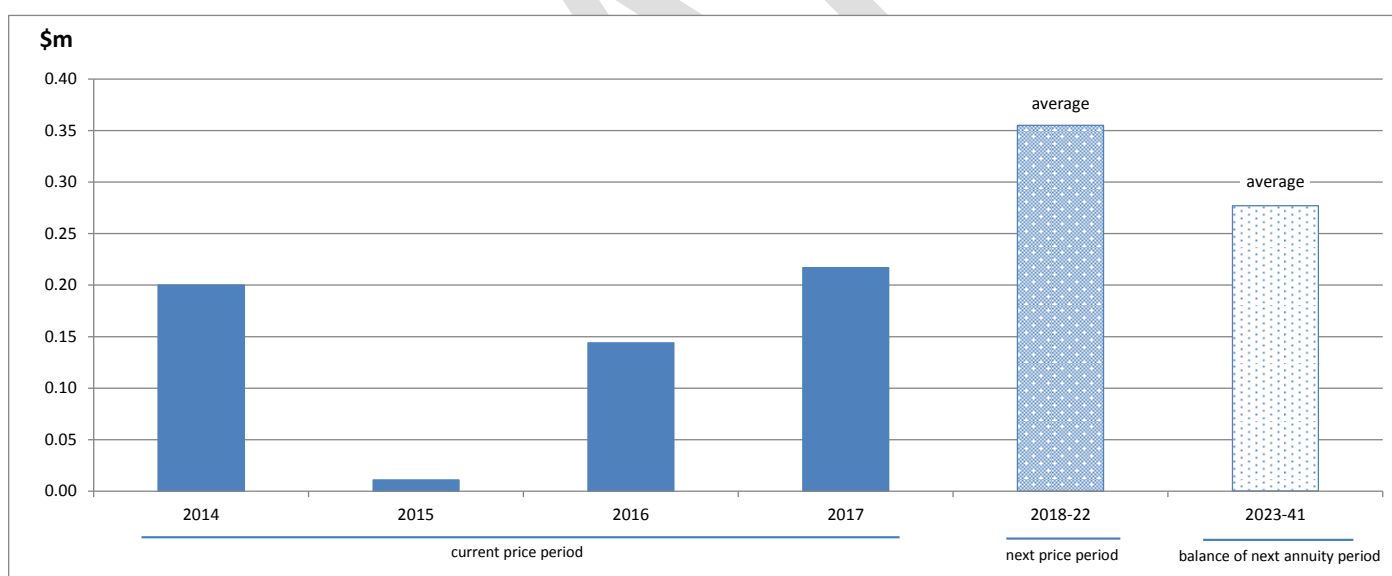
## Overview of Renewals and Enhancements 2014-41

SW 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 R&E program, the most recent of which was completed in February 2013. Items requiring immediate maintenance or replacement will be included in the budget for the following year, which was covered in the previous section.

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 R&E. Having an annuity funding arrangement acknowledges that a long-term view of R&E spend is required to ensure adequate funding and to address issues such as inter-generational equity.

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

**Figure 1 –R&E Annuity Expenditure 2014-41**



All material R&E 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 more detailed options analyses being completed for the 5-year pricing periods than 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.



### **5yr Dam Comprehensive Inspection - Tinaroo Dam**

Year: 2014

Current estimate: \$126k

Options analysis completed: No

Tinaroo Falls Dam is a category 2 dam under Water Supply (Safety and Reliability) Act 2008. Under the Dam Safety Condition Schedule, the dam owner must carry out a comprehensive inspection of the dam in accordance with the Queensland Dam Safety Management Guidelines. Given this requirement is mandatory, an options analysis will not be completed. The next comprehensive inspection is due on or before the 1st day of December 2013, and on or before every fifth anniversary thereafter.

### **Replacement of Trash Screen - Tinaroo Dam**

Year: 2016

Current estimate: \$109k

Options analysis completed: No

An option analysis will be carried out in prior to the replacement of trash screen at irrigation outlet works. A condition and risk assessment was carried out in 2004 and it will be updated before carrying out the option analysis.

### **Conduct Post tensioning of the Anchors by a Specialist Contractor - Tinaroo Dam**

Year: 2017

Current estimate: \$181k

Options analysis completed: No

The dam has been assessed as an "Extreme" hazard category dam in accordance with ANCOLD Guidelines on Assessment of the Consequences of Dam Failure. The guidelines on dam safety management by ANCOLD states 5 yearly monitoring frequency of post tensioning of the anchors for "Extreme" hazard category dam. As post tension anchors were installed in 2011, these will be due for monitoring in 2016/2017. Given this requirement is stipulated in the guidelines, an options analysis will not be completed.

## Material Projects 2018-22

Projects in the R&E plan for 2018-22 should be viewed as indicative at this stage and will be refined as the next pricing review draws closer.

### Replace Trash Rack Screen - Tinaroo Dam

Year: 2020

Current estimate: \$778k

Options analysis completed: No

An option analysis will be carried out prior to the replacement of trash screen at river outlet works. A condition and risk assessment was carried out in 2004 and it will be updated before carrying out the option analysis.

### Replace Dispersion Valve - Tinaroo Dam

Year: 2022

Current estimate: \$365k

Options analysis completed: No

An option analysis will be carried out prior to the replacement of dispersion valve based on time based replacement/renewal strategy. The condition of the valve will be updated before carrying out the option analysis.

### Conduct Post tensioning of the Anchors by a Specialist Contractor - Tinaroo Dam

Year: 2022

Current estimate: \$200k

Options analysis completed: No

The dam has been assessed as an "Extreme" hazard category dam in accordance with ANCOLD Guidelines on Assessment of the Consequences of Dam Failure. The guidelines on dam safety management by ANCOLD states 5 yearly monitoring frequency of post tensioning of the anchors for "Extreme" hazard category dam. As previous monitoring of post tension anchors will be conducted in 2017, it will be due for monitoring in 2022. Given this requirement is stipulated in the guidelines, an options analysis will not be completed.

## Material Projects 2023-41

Projects in the R&E plan 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 - Tinaroo Dam

Year: 2027

Current estimate: \$740k

Options analysis completed: No

Condition assess cables through an ongoing program of electrical testing to monitor ageing and deterioration to better determine replacement timelines. An option analysis will be carried out prior to the replacement of cable and cableways based on time based replacement/renewal strategy. 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 Trash Rack Screen - Tinaroo Dam**

Year: 2036

Current estimate: \$1.2m

Options analysis completed: No

An option analysis will be carried out in 2015 prior to the replacement of trash screen at outlet works. A condition and risk assessment was carried out in 2004 and it will be updated before carrying out the option analysis.

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## Appendix – Operating Expenditure by Expense Type

Table 7 below shows the operating expenditure for the service contract categorised by expenditure type. Operating expenditure below includes other non-routine work funded by the annuity.

**Table 7 – Expenditure for Activity by Type<sup>4</sup>**

	2013		2014	
	QCA Target (\$'000)	SunWater Budget (\$'000)	QCA Target (\$'000)	SW Draft Budget (\$'000)
<b>Operations</b>				
Labour	188	170	194	196
Materials	4	13	4	14
Contractors	16	16	16	15
Other	160	201	163	226
Non-direct	414	446	436	428
Operations Total	782	846	813	879
<b>Preventive</b>				
Labour	60	60	62	68
Materials	6	7	6	7
Contractors	1	1	1	1
Other	0	0	0	0
Non-direct	128	137	134	132
Preventive Total	195	205	203	208
<b>Corrective</b>				
Labour	6	6	6	7
Materials	4	4	4	4
Contractors	1	1	1	1
Other	0	0	0	0
Non-direct	13	14	14	14
Corrective Total	24	25	25	26
Electricity	6	6	6	4
<b>Total Operating Exp.</b>	<b>1,007</b>	<b>1,082</b>	<b>1,047</b>	<b>1,117</b>
R&E Annuity Funded <sup>5</sup>	0	296	89	200
Dam Safety and other	0	0	0	0
<b>Grand Total</b>	<b>1,007</b>	<b>1,378</b>	<b>1,136</b>	<b>1,317</b>

<sup>4</sup> Nominal dollar figures can be converted to real dollars (\$2011) by dividing by the conversion factors in Table 1.

<sup>5</sup> R&E and Dam Safety are built up from the same expenditure types shown for opex, including non-directs.