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2016 Annual Network Service Plan

Three Moon Creek Bulk

June 2015

Table of Contents

Introduction	4
Water Data	4
Revenue	5
Routine Expenditure	6
Operations	6
Preventive Maintenance	6
Corrective Maintenance	6
Electricity	6
Non-Routine Expenditure	7
Non-Routine Budget	7
Annuity Balance	9
Overview of Annuity Funded Non-Routine Projects 2013-41	10
Material Projects 2016-17	10
Material Projects 2018-22	10
Material Projects 2023-41	11
Appendix –Total Expenditure by Expense Type	13

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

	2013	2014	2015	2016	2017
Conversion Factor	1.051	1.077	1.104	1.131	1.160

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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

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

Water Data

Table 2 – Water Data

	No. of Customers	Water Entitlements ML
Industrial		0
Irrigation		14,124
Urban		610
Other		0
SunWater		0
Total	90	14,734
QCA Assumed Water Usage for Irrigation		40.0%
QCA Assumed Water Usage for Total		50.8%

Table 3 – Revenue¹

	2013 SunWater Actual \$'000	2014 SunWater Actual \$'000	2015 SunWater Budget \$'000	2016 SunWater Budget \$'000
Irrigation Revenue	311	333	317	349
Irrigation CSO	7	0	0	0
Industrial and Urban	77	82	82	85
Total Revenue	395	415	399	434

¹ 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 Expenditure²

	2013 SunWater Actual	%of 2013 Target	2014 SunWater Actual	%of 2014 Target	2015 SunWater Budget	%of 2015 Target	2016 SunWater Budget	%of 2016 Target
	\$'000	%	\$'000	%	\$'000	%	\$'000	%
Operations (Excl. Elect.)	274	115%	314	126%	303	122%	301	122%
Preventative	64	72%	101	109%	82	89%	70	76%
Corrective	48	354%	62	439%	12	86%	35	251%
Electricity	8	85%	16	166%	9	86%	9	79%
Total Routine Expenses	394	113%	493	135%	406	111%	416	114%

The budget routine spend is 14% above the QCA's target for 2016 however the budget falls to 99% of target when the above-QCA increases in insurance are taken into account.

Operations

The operations budget in 2016 is 22% 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 100% of the QCA target when the insurance over-run is taken into account.

Preventive Maintenance

Preventive maintenance is budgeted 24% below the QCA's target for 2016.

Corrective Maintenance

Corrective maintenance is budgeted 151% above the QCA's target for 2016. The budget is reflective of recent corrective maintenance actual spend and the magnitude of the variance reflects the very low QCA target.

Electricity

Electricity costs are budgeted at 21% below the QCA target in 2016. This 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 around 50%. Three Moon Creek electricity costs can vary by +/- \$2k from year-to-year. SunWater will continue to review tariffs each year to identify the best tariff for the expected future operations.

² 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, the 2013-17 non-routine spend will exceed the five-year QCA target. There have 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	% 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	%
Annuity Funded								
R&E - Annuity Funded	125		4		84		63	
Corrective	39		278		487		88	
Other	0		0		0		0	
Non-direct	46		54		153		122	
Annuity Funded Total	210	49%	336	78%	724	168%	273	63%
Non-Annuity Funded								
R&E - Non-Annuity Funded	0		0		0		0	
Non-direct	0		0		0		0	
Total Non-Annuity Funded	0	n/a	0	n/a	0	n/a	0	n/a

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

Table 6 – Non-Routine Projects 2016

Project Title	Project Scope	2016 Budget (\$'000)
FD01(2015) Flood Damage Repair - MULGILDIE WEIR	During the flood event caused by Cyclone Marcia in February 2015, Mulgildie Weir sustained damage in several locations. This project is to undertake repairs of the identified damages.	85
WEIR PROGRAM – 5-yearly Comprehensive Inspection - AVIS, BAZLEY, MONTO, & MULGILDIE, & YOULAMBIE RECHARGE WEIRS	Avis, Balzey, Monto, Mulgildie and Youlambie Recharge Weirs are categorised as minor weirs for which SunWater undertakes comprehensive 5-yearly inspections to ensure their operation and safety. These are now due.	80
Install fence & barrier on left wall spillway to enhance public safety - CANIA DAM	A safety audit was undertaken for Cania Dam recently, during which it was established that some public and operator safety risks are unacceptably high. Amongst other smaller items, signage and a fence and barrier on the left bank of spillway are required to enhance public safety.	23
Meter Replacement - THREE MOON CREEK GROUND-WATER 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.	22
FD01(2015) Flood Damage Repair - AVIS WEIR	During the flood event caused by Cyclone Marcia in February 2015, Avis Weir sustained damage in several locations. This project is to undertake repairs of the identified damages.	15
Other works	Various smaller replacement and refurbishment projects.	48
Total		273

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

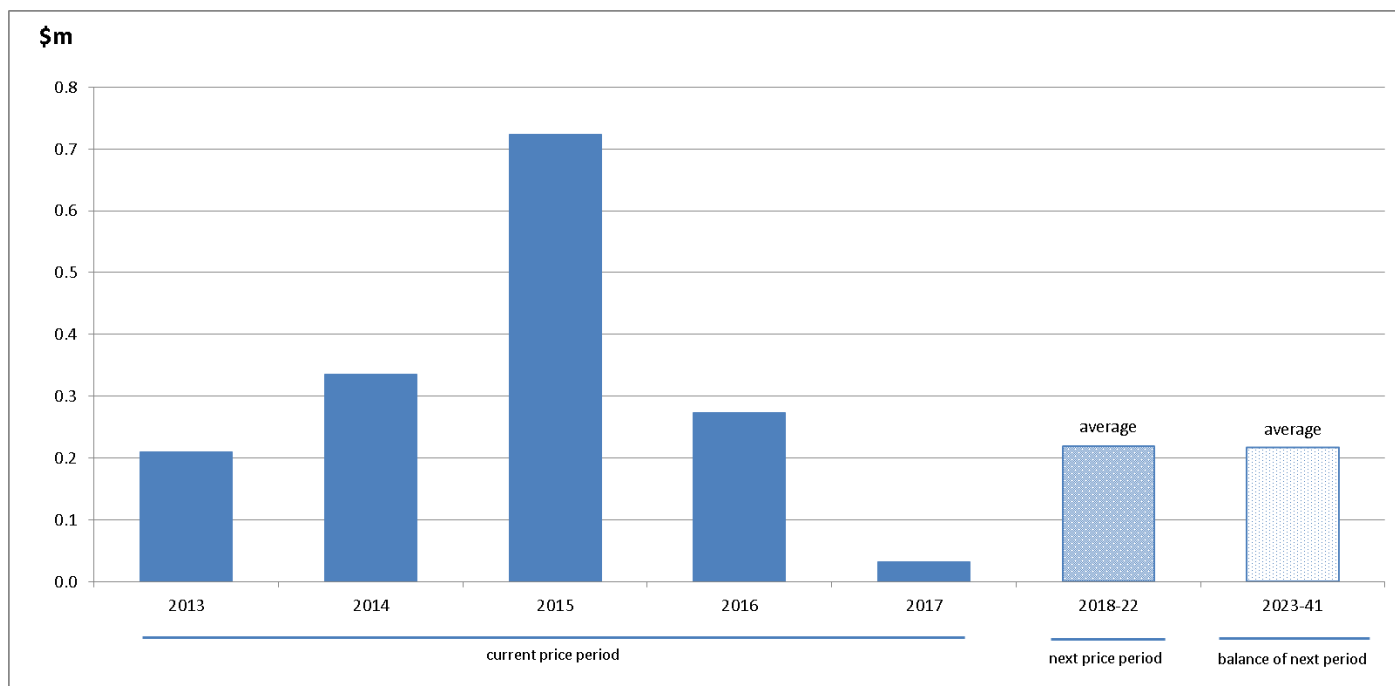
ANNUITY	2013	2014	2015*	2016
	\$'000	\$'000	\$'000	\$'000
Opening Balance	(337)	(466)	(728)	(1,397)
Annuity Income	107	108	109	112
Spend	(210)	(336)	(724)	(273)
Interest	(25)	(35)	(55)	(105)
Closing Balance	(466)	(728)	(1,397)	(1,663)

* 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 expenditure in 2013-15 includes the previously flagged flood damage repairs.

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

The evenness in the spread of estimated project costs and/or spend that has already occurred over 2013-15 means there are no projects which exceed the materiality threshold for this service contract for the 2016-17 period.

Material Projects 2018-22

The program of works for 2018-22 should be viewed as indicative at this stage and will be refined as the next pricing review draws closer.

20yr Dam Safety Review (by 1 Dec 2019) - CANIA DAM

Year: 2019

Current estimate: \$393k

Options analysis completed: No

Cania Dam is a category 2 referable structure and the 20 Year Dam Safety Review is required for Queensland Government Regulatory Compliance and is usually conducted in conjunction with a Five Yearly Dam Safety Inspection.

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 the following:

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

Given this requirement is mandatory, an individual options analysis is not required.

5yr Dam Comprehensive Inspection - CANIA DAM

Year: 2020

Current estimate: \$142k

Options analysis completed: No

SunWater policy is to conduct annual and 5 yearly inspections on our dam assets to ensure that the asset will be able to perform its designed function. The estimate to carry out the works is a built up figure using our works order system and recognised the time and rate of engineers and also the remoteness of the site. No options analysis is required.

Comprehensive Risk Assessment - CANIA DAM

Year: 2020

Current estimate: \$174k

Options analysis completed: No

A Comprehensive Risk Assessment for Cania Dam is scheduled to be undertaken in 2020 to follow up any findings from the Dam Safety Review that is scheduled to be undertaken in 2019 (see 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 - CANIA DAM

Year: 2025

Current estimate: \$256k

Options analysis completed: No

The scheduled replacement of the cables and cableways at Cania Dam is based on the latest electrical equipment condition assessment. The next condition assessment will be undertaken in 2017, which will determine the ultimate replacement date.

5yr Dam Comprehensive Inspection - CANIA DAM

Year: 2020

Current estimate: \$153k

Options analysis completed: No

See 2020 project description, above.

5yr Dam Comprehensive Inspection - CANIA DAM

Year: 2020

Current estimate: \$175k

Options analysis completed: No

See 2020 project description, above.

5yr Dam Comprehensive Inspection - CANIA DAM

Year: 2020

Current estimate: \$198k

Options analysis completed: No

See 2020 project description, above.

20yr Dam Safety Review (by 1 Dec 2019) - CANIA DAM

Year: 2039

Current estimate: \$635k

Options analysis completed: No

Cania Dam is a category 2 referable structure and the 20 Year Dam Safety Review is required for Queensland Government Regulatory Compliance and is usually conducted in conjunction with a Five Yearly Dam Safety Inspection.

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 the following:

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

Given this requirement is mandatory, an individual options analysis is not required.

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 %
ROUTINE EXPENSES								
Operations								
Labour	62		48		61		55	
Materials	1		2		0		0	
Contractors	3		3		2		2	
Other	94		165		120		115	
Non-direct	114		95		119		130	
Operations Total	274	115%	314	126%	303	122%	301	122%
Preventative								
Labour	20		31		26		19	
Materials	0		2		0		0	
Contractors	7		12		6		6	
Other	1		0		1		1	
Non-direct	36		56		49		44	
Preventative Total	64	72%	101	109%	82	89%	70	76%
Corrective								
Labour	6		13		2		7	
Materials	10		13		1		1	
Contractors	16		12		4		9	
Other	1		0		0		0	
Non-direct	15		24		4		17	
Corrective Total	48	354%	62	439%	12	86%	35	251%
Electricity	8	85%	16	166%	9	86%	9	79%
Total Routine Expenses	394	113%	493	135%	406	111%	416	114%
	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 %
NON-ROUTINE EXPENSES								
Annuity Funded								
R&E - Annuity Funded	125		4		84		63	
Corrective	39		278		487		88	
Other	0		0		0		0	
Non-direct	46		54		153		122	
Total Annuity Funded Non-Routine	210	49%	336	78%	724	168%	273	63%
TOTAL REGULATED EXPENSES	605		829		1,130		688	
Non-Annuity Funded								
R&E - Non-Annuity Funded	0		0		0		0	
Non-direct	0		0		0		0	
Total Non-Annuity Funded	0	n/a	0	n/a	0	n/a	0	n/a
TOTAL EXPENSES	605		829		1,130		688	