

SunWater Limited
Level 10, 179 Turbot Street
PO Box 15536 City East
Brisbane Queensland 4002
www.sunwater.com.au
ACN 131 034 985



2016 Annual Network Service Plan

Chinchilla Weir 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	11
Material Projects 2023-41	11
Appendix –Total Expenditure by Expense Type	14

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

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

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

Water Data

Table 2 – Water Data

	No. of Customers	Water Entitlements ML
Industrial		290
Irrigation		2,594
Urban		1,160
Other		0
SunWater		5
Total	40	4,049
QCA Assumed Water Usage for Irrigation		48.5%
QCA Assumed Water Usage for Total		61.1%

Table 3 – Revenue¹

	2013 SunWater Actual \$'000	2014 SunWater Actual \$'000	2015 SunWater Budget \$'000	2016 SunWater Budget \$'000
Irrigation Revenue	92	83	72	75
Industrial and Urban	113	117	118	125
Other Revenue	3	1	2	2
Total Revenue	207	200	192	202

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.)	83	156%	85	155%	67	121%	61	108%
Preventative	3	22%	5	41%	12	95%	20	152%
Corrective	0	0%	0	0%	8	95%	10	121%
Electricity	0	n/a	0	n/a	0	n/a	0	n/a
Total Routine Expenses	85	116%	91	119%	88	113%	91	117%

The routine expenditure budget in 2016 is 17% above the QCA target; however this is mostly 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 105% of the QCA target when the insurance over-run is taken into account.

Operations

The operations budget is 8% above the QCA target for 2016, which is mostly due to the increases in insurance costs discussed above.

Preventive Maintenance

Preventive maintenance is budgeted \$7k (52%) above the QCA's target for 2016.

Corrective Maintenance

Corrective maintenance is budgeted \$2K (21%) above the QCA's target for 2016.

Electricity

No electricity costs are planned for this service contract in 2016.

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, it is expected that the 2013-17 non-routine budget 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

	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 %
Annuity Funded								
R&E - Annuity Funded	45		0		0		11	
Corrective	0		0		0		0	
Other	0		0		0		0	
Non-direct	3		(0)		0		1	
Annuity Funded Total	48	54%	(0)	0%	0	0%	12	14%
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

There are no projects planned for Chinchilla Weir in 2016.

Table 6 – Non-Routine Projects 2016

Project Title	Project Scope	2016 Budget (\$'000)
Replacement of Chinchilla Meter Outlets - 2015 IBH Strategy	Based on the Southern Region's documented meter strategy, we use a weighted average for meter replacement costs on a life span of 20 years. There are 39 meters in the Chinchilla catchment and this will be a conservative annual occurrence.	12
Total		12

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

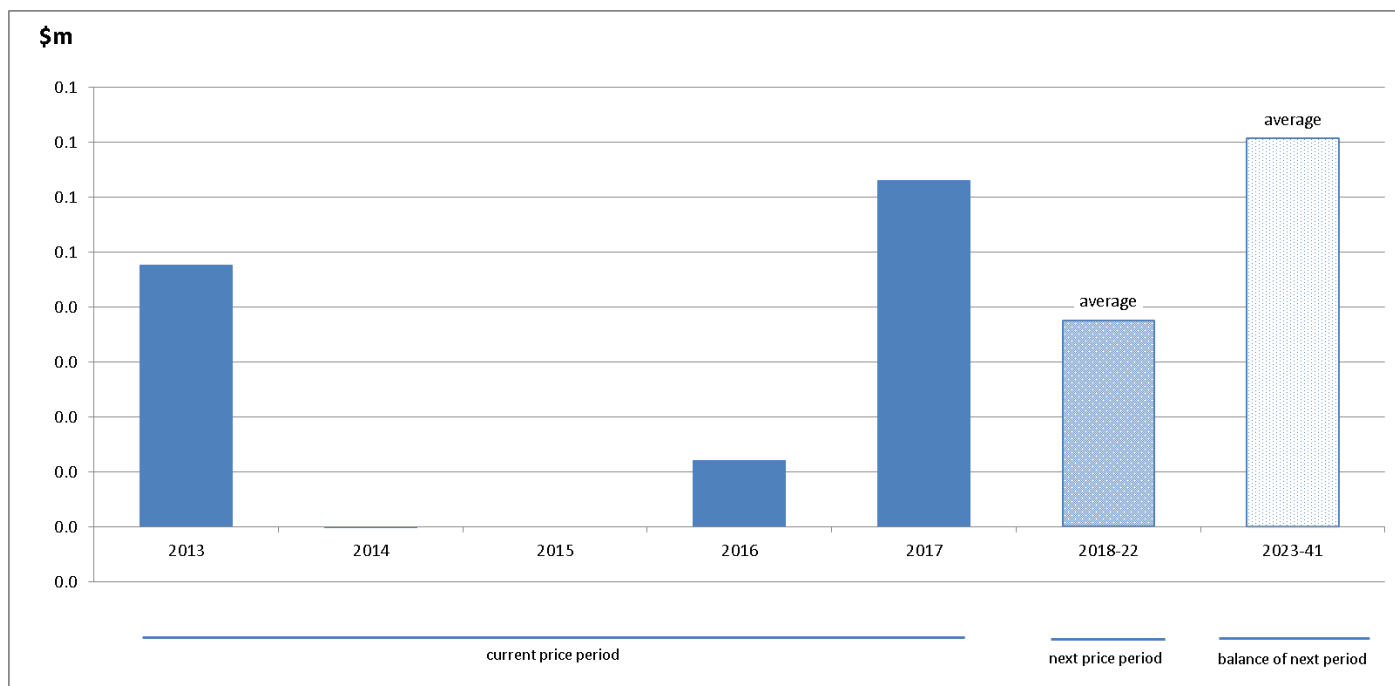
ANNUITY	2013	2014	2015*	2016
	\$'000	\$'000	\$'000	\$'000
Opening Balance	103	68	77	87
Annuity Income	4	4	4	4
Spend	(48)	0	0	(12)
Interest	8	5	6	6
Closing Balance	68	77	87	85

* 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

5yr Dam Comprehensive Inspection - CHINCHILLA WEIR

Year: 2017

Current estimate: \$51k

Options analysis completed: No

Chinchilla Weir is classed as a major weir with annual inspections and a comprehensive inspection every 5 years. These inspections are undertaken under SunWater policy. This inspection has allowed for internal inspection of the conduit using a dive team to perform the inspection to give certainty on asset condition and to identify any faults or defects which can be planned for repair rather than have sudden failures. Additionally, the trashracks can be inspected and so can the seating arrangements for a proposed future bulkhead gate.

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.

Technical Review / Options analysis - bulkhead gate, review fitment strategy, review alternate options for Isolation - CHINCHILLA WEIR

Year: 2018

Current estimate: \$25k

Options analysis completed: This is the options analysis

This is an options analysis with a strong emphasis on risk to determine if we require a bulkhead gate. If the new hydraulic regulator valve fails and the 41-year-old Guard Valve fails, we will have an uncontrolled release, which could potentially leave the township of Chinchilla with no water. If that risk is within acceptable limits, or we develop a different emergency strategy, then the 2019 project for \$38K and the 2025 project for \$429K will likely be cancelled.

Construct Bulkhead Gate - CHINCHILLA WEIR

Year: 2019

Current estimate: \$39k

Options analysis completed: No

Undertaking a condition assessment with divers in 2017 and also getting the existing design for the bulkhead gate checked by RPQ Engineer. The actual building of the bulkhead gate will need to be aligned with the long term strategy for the weir and how we would actually fit it after it was built. As the regulating valves were replaced in 2012 we feel confident that we are not creating an additional risk by holding off on the actual construction for a year:

5yr Dam Comprehensive Inspection - CHINCHILLA WEIR

Year: 2022

Current estimate: \$56k

Options analysis completed: No

Chinchilla Weir is classed as a major weir with annual inspections and a comprehensive inspection every 5 years.. This inspection has allowed for internal inspection of the conduit using a dive team to perform the inspection to give certainty on asset condition and to identify any faults or defects which can be planned for repair rather than have sudden failures. Additionally, the trashracks can be inspected and so can the seating arrangements for a proposed future bulkhead gate.

Material Projects 2023-41

The program of works for 2022-41 should be viewed as indicative at this stage and will be refined as the next pricing review draws closer.

Replace: 840 GATE VALVE - CHINCHILLA WEIR (Left Conduit)

Year: 2025

Current estimate: \$451k

Options analysis completed: No

The Guard valve on the left conduit was installed in 1973 and originally scheduled for replacement in 2013. With the coal seam gas project replacing the regulating valve with hydraulics and the guard valve still operational, it was decided to extend the life of the guard valve by 20 years. We are unable to undertake any maintenance (or replace the guard valve unless we build a bulkhead gate (refer 2019 project) and this will also be factored into the options analysis from the bulkhead gate project.

Replacement of Chinchilla Meter Outlets - 2015 IBH Strategy - CHINCHILLA WEIR

Year: 2027

Current estimate: \$14k

Options analysis completed: No

Based on the Southern Region's documented meter strategy, we use a weighted average for meter replacement costs on a life span of 20 years. There are 39 meters in the Chinchilla catchment.

5yr Dam Comprehensive Inspection - CHINCHILLA WEIR

Year: 2027

Current estimate: \$60k

Options analysis completed: No

Chinchilla Weir is classed as a major weir with annual inspections and a comprehensive inspection every 5 years.. This inspection has allowed for internal inspection of the conduit using a dive team to perform the inspection to give certainty on asset condition and to identify any faults or defects which can be planned for repair rather than have sudden failures. Additionally, the trashracks can be inspected and so can the seating arrangements for a proposed future bulkhead gate.

Replacement of control equipment as per asset standards - CHINCHILLA WEIR

Year: 2027

Current estimate: \$65k

Options analysis completed: No

As part the new coal seam gas water pipeline project in 2012, amendments were made to Chinchilla Weir including the replacement of regulating valves, which are now controlled by SCADA and hydraulics. The total replacement value of the whole control system is some \$674,000, however many components making up that figure will have a long life span. Electronic obsolescence items with an expected life of 15 years are the root cause of this maintenance item, however based on condition and risk, the item will be re-assessed.

5yr Dam Comprehensive Inspection - CHINCHILLA WEIR

Year: 2032

Current estimate: \$68k

Options analysis completed: No

Chinchilla Weir is classed as a major weir with annual inspections and a comprehensive inspection every 5 years.. This inspection has allowed for internal inspection of the conduit using a dive team to perform the inspection to give certainty on asset condition and to identify any faults or defects which can be planned for repair rather than have sudden failures. Additionally, the trashracks can be inspected and so can the seating arrangements for a proposed future bulkhead gate.

Refurbishment: Repairs to the concrete face of the weir - CHINCHILLA WEIR

Year: 2033

Current estimate: \$63k

Options analysis completed: No

In 2013, SunWater undertook concrete repairs to the face of Chinchilla Weir. The repairs were needed as certain areas around weep holes had a notably thinner concrete cover and the reinforcing bars were starting to show through the concrete. The worst affected areas were patched up to a satisfactory condition, however it was noted in the weir maintenance reports that the RPEQ Engineer expected that more areas would require work over time and a rolling program of spending \$33,500 every 10 years was thought a minimum requirement. The figure of \$63,000 is the accumulated effect of inflation on \$33,500 over a 20 year period

5yr Dam Comprehensive Inspection - CHINCHILLA WEIR

Year: 2037

Current estimate: \$78k

Options analysis completed: No

Chinchilla Weir is classed as a major weir with annual inspections and a comprehensive inspection every 5 years.. This inspection has allowed for internal inspection of the conduit using a dive team to perform the inspection to give certainty on asset condition and to identify any faults or defects which can be planned for repair rather than have sudden failures. Additionally, the trashracks can be inspected and so can the seating arrangements for a proposed future bulkhead gate.

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	21		16		14		11	
Materials	0		0		1		1	
Contractors	1		1		2		2	
Other	17		37		23		21	
Non-direct	43		30		27		26	
Operations Total	83	156%	85	155%	67	121%	61	108%
Preventative								
Labour	1		2		4		6	
Materials	0		0		0		0	
Contractors	0		0		0		0	
Other	0		0		0		0	
Non-direct	2		3		8		14	
Preventative Total	3	22%	5	41%	12	95%	20	152%
Corrective								
Labour	0		0		3		3	
Materials	0		0		1		1	
Contractors	0		0		0		0	
Other	0		0		0		0	
Non-direct	0		0		5		7	
Corrective Total	0	0%	0	0%	8	95%	10	121%
Electricity	0	n/a	0	n/a	0	n/a	0	n/a
Total Routine Expenses	85	116%	91	119%	88	113%	91	117%
NON-ROUTINE EXPENSES								
Annuity Funded								
R&E - Annuity Funded	45		0		0		11	
Corrective	0		0		0		0	
Other	0		0		0		0	
Non-direct	3		(0)		0		1	
Total Annuity Funded Non-Routine	48	54%	(0)	0%	0	0%	12	14%
TOTAL REGULATED EXPENSES	133		91		88		103	
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	133		91		88		103	