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2016 Annual Network Service Plan

Burdekin 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..... | 12 |

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

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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 | | 20,214 |
| Irrigation | | 631,780 |
| Urban | | 10,550 |
| Other | | 8 |
| SunWater | | 417,040 |
| Total | 387 | 1,079,592 |
| QCA Assumed Water Usage for Irrigation | | 80.6% |
| QCA Assumed Water Usage for Total | | 55.8% |

Table 3 – Revenue¹

| | 2013 SunWater Actual \$'000 | 2014 SunWater Actual \$'000 | 2015 SunWater Budget \$'000 | 2016 SunWater Budget \$'000 |
|-----------------------|--|--|--|--|
| Irrigation Revenue* | 2,175 | 2,405 | 1,237 | 1,400 |
| Industrial and Urban* | 143 | 152 | 154 | 90 |
| Other Revenue | 52 | 65 | 51 | 51 |
| Total Revenue | 2,371 | 2,622 | 1,443 | 1,541 |

* Bulk water charges have not been unbundled from Distribution charges therefore a portion of the Distribution revenue is attributable to the Bulk service contract.

¹ 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.

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.) | 2,035 | 79% | 2,478 | 92% | 3,118 | 116% | 2,748 | 103% |
| Preventative | 242 | 68% | 245 | 66% | 372 | 100% | 564 | 152% |
| Corrective | 338 | 152% | 326 | 140% | 233 | 100% | 315 | 135% |
| Electricity | 89 | 93% | 100 | 98% | 129 | 118% | 129 | 109% |
| Total Routine Expenses | 2,705 | 83% | 3,149 | 93% | 3,852 | 113% | 3,755 | 111% |

The budget routine spend is 11% 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 in line with the QCA's target for 2016.

Preventive Maintenance

Preventive maintenance is budgeted 52% above the QCA's target for 2016, however this is mainly due to surveillance undertaken to comply with Dam Safety compliance.

Corrective Maintenance

Corrective maintenance is budgeted 35% above the QCA's target for 2016, however this is mainly due to work undertaken to rectify safety issues in regards to the Clare Weir.

Electricity

Electricity costs are budgeted 9% higher than the QCA target in 2016 due to announced increases in electricity prices being much higher than the increases allowed for by the QCA. The QCA had allowed for tariff increases of around 35% over the first four years of the price path whereas actual increases have been around 50%. Resultant cost over-runs are beyond SunWater's control. 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.

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 | 410 | | 260 | | 707 | | 472 | |
| Corrective | 0 | | 0 | | 0 | | 0 | |
| Other | 10 | | 8 | | 0 | | 0 | |
| Non-direct | 185 | | 128 | | 137 | | 160 | |
| Annuity Funded Total | 605 | 23% | 397 | 15% | 844 | 33% | 632 | 24% |
| Non-Annuity Funded | | | | | | | | |
| R&E - Non-Annuity Funded | 237 | | 2 | | 0 | | 0 | |
| Non-direct | 287 | | 3 | | 0 | | 0 | |
| Total Non-Annuity Funded | 525 | n/a | 4 | n/a | 0 | n/a | 0 | n/a |

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) |
|---|--|-----------------------------|
| Refurbish/replace lower gallery and external water pipework (2014 DS Rec.2.8.8) - BURDEKIN FALLS DAM | During the 2014 annual inspection it was noted the overall condition of joints and fittings of both water line pipes (river water and treated water) is very poor and require replacement/repair as soon as practicable. | 116 |
| Dam Break revision - BURDEKIN FALLS DAM | Statutory requirement from the Dam Safety Regulator to periodically review the dam break analysis. | 99 |
| Refurbish up to 30 hydraulic cylinders - CLARE WEIR | This is an ongoing project for refurbishment of all faulty flap gate hydraulic cylinders. The cylinder refurbishment involves inspecting and replacing hydraulic seals that have failed or have been assessed to fail prior to the next scheduled refurbishment, inspecting and refurbishing or replacing failed or damaged cylinders and the cylinder shafts. | 80 |
| Option Analysis, Procurement and Repair of Bulkhead Gate Guides - Gate 2 (2014 DS Rec 2.9.2) - BURDEKIN FALLS DAM | The guides were inspected in June 2014 by remotely operated under-water vehicle. Two guides have a non-critical bend causing problems for the installation of a bulkhead gate. Loss of storage may result if Radial Gate 2 is broken. | 65 |
| Desktop Comprehensive Risk Assessment Review based on 2016 Dam Break revision results - BURDEKIN FALLS DAM | This is a requirement of the SunWater Board to ensure all dam safety risks are identified and a program of works to mitigate them implemented. | 57 |
| Other works | Various smaller replacement and refurbishment projects. | 215 |
| Total | | 632 |

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

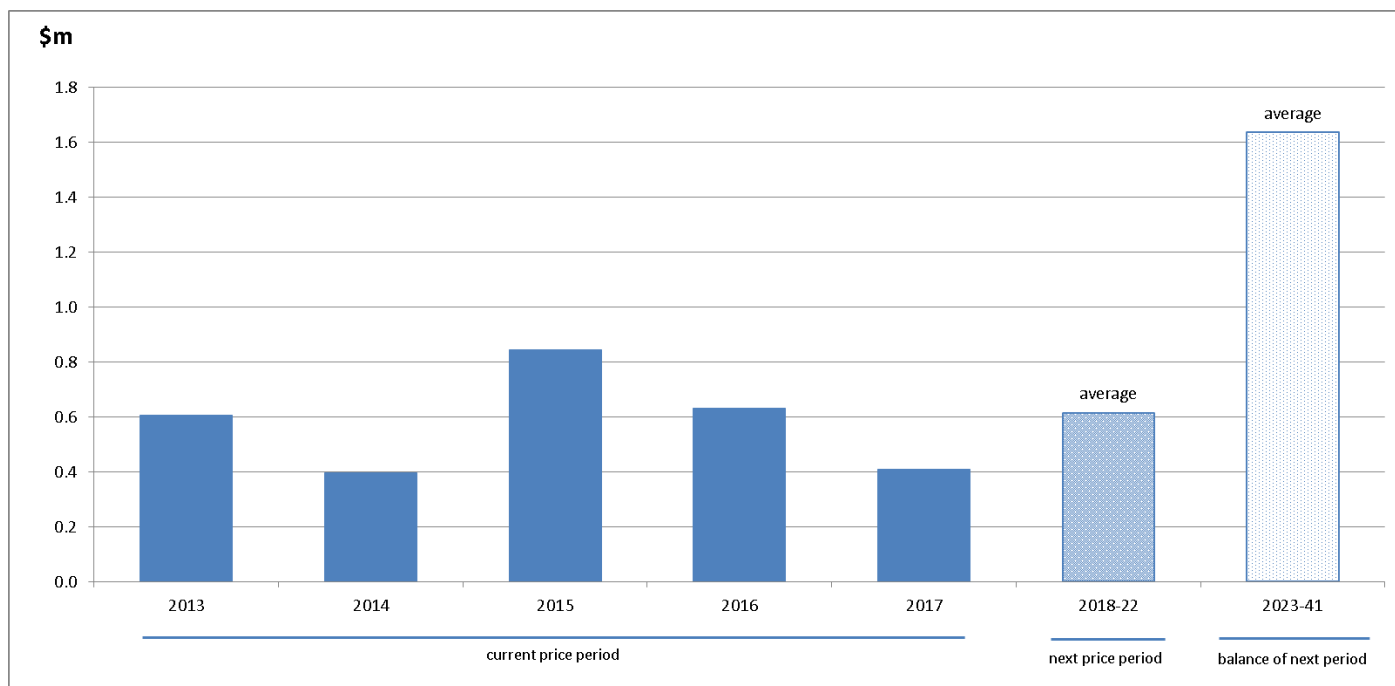
| ANNUITY | 2013 | 2014 | 2015* | 2016 |
|------------------------|-------------|-------------|--------------|-------------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| Opening Balance | 4,805 | 5,108 | 5,652 | 5,798 |
| Annuity Income | 548 | 558 | 567 | 592 |
| Spend | (605) | (397) | (844) | (632) |
| Interest | 360 | 383 | 423 | 434 |
| Closing Balance | 5,108 | 5,652 | 5,798 | 6,192 |

* 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 following chart.

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 Jun 2021) - BURDEKIN FALLS DAM

Year: 2021

Current estimate: \$404k

Options analysis completed: No

Burdekin Falls 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.

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 Water Supply – BURDEKIN FALLS DAM

Year: 2028

Current estimate: \$1.07m

Options analysis completed: No

The scheduled replacement of the town water supply system at Burdekin Falls 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 Radial Gate Hydraulics – BURDEKIN FALLS DAM

Year: 2037

Current estimate: \$1.38m

Options analysis completed: No

The scheduled replacement of the radial gates hydraulic system at Burdekin Falls 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 Lift – BURDEKIN FALLS DAM

Year: 2038

Current estimate: \$1.04m

Options analysis completed: No

The scheduled replacement of the lift at Burdekin Falls 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 % |
|---|--------------------------------------|-------------------------------|--------------------------------------|-------------------------------|--------------------------------------|-------------------------------|--------------------------------------|-------------------------------|
| ROUTINE EXPENSES | | | | | | | | |
| Operations | | | | | | | | |
| Labour | 435 | | 432 | | 247 | | 275 | |
| Materials | 13 | | 64 | | 39 | | 33 | |
| Contractors | 12 | | 34 | | 1,297 | | 877 | |
| Other | 685 | | 1,104 | | 905 | | 824 | |
| Non-direct | 891 | | 845 | | 629 | | 739 | |
| Operations Total | 2,035 | 79% | 2,478 | 92% | 3,118 | 116% | 2,748 | 103% |
| Preventative | | | | | | | | |
| Labour | 45 | | 53 | | 27 | | 65 | |
| Materials | 20 | | 2 | | 10 | | 25 | |
| Contractors | 49 | | 88 | | 249 | | 290 | |
| Other | 37 | | 7 | | 22 | | 20 | |
| Non-direct | 91 | | 95 | | 64 | | 164 | |
| Preventative Total | 242 | 68% | 245 | 66% | 372 | 100% | 564 | 152% |
| Corrective | | | | | | | | |
| Labour | 65 | | 67 | | 16 | | 16 | |
| Materials | 56 | | 63 | | 50 | | 40 | |
| Contractors | 77 | | 66 | | 127 | | 205 | |
| Other | 6 | | 2 | | 3 | | 5 | |
| Non-direct | 134 | | 128 | | 38 | | 49 | |
| Corrective Total | 338 | 152% | 326 | 140% | 233 | 100% | 315 | 135% |
| Electricity | 89 | 93% | 100 | 98% | 129 | 118% | 129 | 109% |
| Total Routine Expenses | 2,705 | 83% | 3,149 | 93% | 3,852 | 113% | 3,755 | 111% |
| | 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 | 410 | | 260 | | 707 | | 472 | |
| Corrective | 0 | | 0 | | 0 | | 0 | |
| Other | 10 | | 8 | | 0 | | 0 | |
| Non-direct | 185 | | 128 | | 137 | | 160 | |
| Total Annuity Funded Non-Routine | 605 | 23% | 397 | 15% | 844 | 33% | 632 | 24% |
| TOTAL REGULATED EXPENSES | 3,310 | | 3,546 | | 4,695 | | 4,388 | |
| Non-Annuity Funded | | | | | | | | |
| R&E - Non-Annuity Funded | 237 | | 2 | | 0 | | 0 | |
| Non-direct | 287 | | 3 | | 0 | | 0 | |
| Total Non-Annuity Funded | 525 | n/a | 4 | n/a | 0 | n/a | 0 | n/a |
| TOTAL EXPENSES | 3,834 | | 3,550 | | 4,695 | | 4,388 | |