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2015 Annual Network Service Plan

Bundaberg Bulk

June 2014

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 |
| 2015 Non-Routine Budget | 7 |
| Annuity Balance | 9 |
| Overview of Annuity Funded Non-Routine Projects 2013-41 | 10 |
| Material Projects 2015-17 | 10 |
| Flood damage repairs - BEN ANDERSON BARRAGE | 10 |
| Material Projects 2018-22 | 11 |
| 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 2015 NSPs for each of 30 Service Contracts during March 2014. 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>.

The feedback has led to changes being made to SunWater's plans for 2015. While the plans for 2015 are now complete, customer feedback is always welcome 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 | | 986 |
| Irrigation | | 199,114 |
| Urban | | 9,571 |
| Other | | 46 |
| SunWater | | 170,869 |
| Total | 1,126 | 380,586 |
| QCA Assumed Water Usage for Irrigation | | 41.4% |
| QCA Assumed Water Usage for Total | | 46.7% |

Table 3 – Revenue¹

| | 2013 SunWater Actual \$'000 | 2014 SunWater Budget \$'000 | 2015 SW Draft Budget \$'000 |
|-----------------------|--|--|--|
| Irrigation Revenue* | 250 | 368 | 430 |
| Industrial and Urban* | 722 | 656 | 615 |
| Other Revenue | 13 | 13 | 13 |
| Total Revenue | 984 | 1,037 | 1,059 |

* 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 2015 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 Budget | % of 2014 Target | 2015 SunWater Budget | % of 2015 Target |
|-------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|-------------------------------------|---------------------------------|
| | \$'000 | % | \$'000 | % | \$'000 | % |
| Operations (Excl. Elect.) | 1,103 | 153% | 807 | 108% | 961 | 128% |
| Preventative | 132 | 40% | 342 | 99% | 217 | 62% |
| Corrective | 122 | 93% | 165 | 121% | 100 | 72% |
| Electricity | 5 | 52% | 11 | 111% | 4 | 39% |
| Total Routine Expenses | 1,362 | 114% | 1,325 | 107% | 1,282 | 102% |

The budget routine spend is 2% above the QCA's target for 2015 however the budget falls to 91% of target when the above-QCA increases in insurance are taken into account.

Operations

The operations budget in 2015 is 28% 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 108% of the QCA target when the insurance over-run is taken into account.

Preventive Maintenance

SunWater has restructured its bulk water business during 2013/14. As a consequence the bulk water business will undertake a number of maintenance tasks, such as electrical and mechanical servicing, utilising specialist private sector organisations. Therefore the budget for preventive maintenance, at 62% of target, reflects a reduction in internal labour that is offset by an increase in contract services. The costs of the contract services are yet to be confirmed via the market.

Corrective Maintenance

Corrective maintenance is budgeted well below the QCA's target for 2015. Significant corrective maintenance will also be undertaken by specialist contractors, as described above.

Electricity

Electricity costs are budgeted at \$6k below the QCA target in 2015. This is despite the QCA limiting estimated tariff increases to around 30% over the first three years of the price path when actual increases have been around 50%. Bundaberg electricity costs can vary from year-to-year and represent less than 1% of total routine costs.

² The 2015 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, the most recent of which was completed in February 2014; 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.

2015 Non-Routine Budget

The budget non-routine spend for 2015 is shown in the table below, along with the actual spend for 2013 and the budget spend for 2014. There have been significant corrective works in this service contract with over \$7m of expenditure planned to repair damage at Ben Anderson Barrage in 2015. Corrective works are unplanned and were not allowed for in the QCA's targets. Consequently, it is clear that non-routine expenditure will exceed the QCA's target for the 2013-17 price path.

Table 5 – Non-Routine Expenditure

| | 2013 SunWater Actual | % of 2013-17 Target | 2014 SunWater Budget | % of 2013-17 Target | 2015 SunWater Budget | % of 2013-17 Target |
|---------------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| | \$'000 | % | \$'000 | % | \$'000 | % |
| Annuity Funded | | | | | | |
| R&E - Annuity Funded | 157 | | 672 | | 510 | |
| Corrective | 501 | | 2,556 | | 6,690 | |
| Other | 0 | | 0 | | 0 | |
| Non-direct | 287 | | 704 | | 1,105 | |
| Annuity Funded Total | 946 | 55% | 3,932 | 229% | 8,306 | 484% |
| Non-Annuity Funded | | | | | | |
| R&E - Non-Annuity Funded | 0 | | 0 | | 0 | |
| Non-direct | 0 | | 0 | | 0 | |
| Total Non-Annuity Funded | 0 | n/a | 0 | n/a | 0 | n/a |

The details for the five major projects planned for 2015 are provided below:

Table 6 – Non-Routine Projects 2015

| Project Title | Project Scope | 2015 Budget (\$'000) |
|---|--|-----------------------------|
| Flood damage repairs - BEN ANDERSON BARRAGE | Install an additional row of sheet piling upstream of the barrage to enhance the structure's capacity to handle another flood. Also included in this work is the reinstatement of the cathodic protection system, which was originally scheduled for 2014. | 7,658 |
| Flood proof the Fred Haigh Dam outlet building | Construct walls around top of the OLB to prevent flooding - FRED HAIGH DAM | 195 |
| Refurbish 10 Shutters - BEN ANDERSON BARRAGE | Repaint and recoat the shutters at Ben Anderson Barrage. This is an ongoing project aimed to keep the shutters in optimal condition. | 115 |
| Install redesigned nut and spindle on Bucca Weir gate to original arrangement 2014 - BUCCA WEIR | Install re-designed nut and spindle to be installed to prevent future outlet gate failures. | 61 |
| 5yr Dam Comprehensive Inspection (incl. diver inspection of the gate) (2014 calendar year) - BUCCA WEIR | Conduct a thorough civil and mechanical engineering assessment of the weir. Engineers will travel from Brisbane to assess its condition and risk, prepare a report including recommendations for refurbishment work and plan the work in future years. | 46 |
| Other works | | 231 |
| Total | | 8,306 |

Annuity Balance

The estimated 2014 and 2015 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 2015 is shown in the following table. The balances for 2014 and 2015 are estimates only at this stage because the final actual spends for 2014 and 2015 will not be known until after each of these years is completed.

Table 7 – Annuity Balances

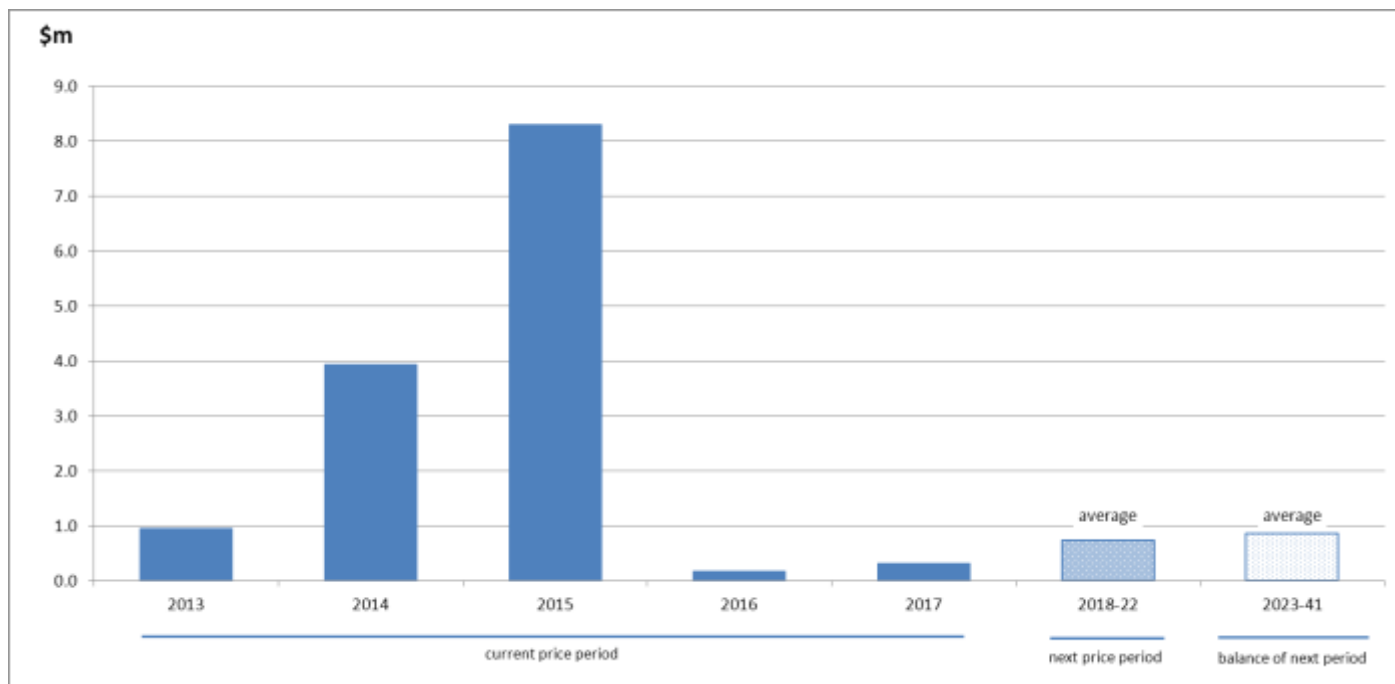
| | 2013 | 2014* | 2015* | 2016 | 2017 |
|------------------------|-------------|--------------|--------------|-------------|-------------|
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Opening Balance | (2,771) | (3,363) | (6,973) | | |
| Annuity Income | 561 | 574 | 585 | 599 | 618 |
| Spend | (946) | (3,932) | (8,306) | | |
| Interest | (208) | (252) | (522) | | |
| Closing Balance | (3,363) | (6,973) | (15,216) | | |

* All 2014 and 2015 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 annuity chart below has been updated to include the estimates of flood damage repairs over 2013-15.

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 2015-17

Flood damage repairs - BEN ANDERSON BARRAGE

Year: 2015

Current estimate: \$7.7m

Options analysis completed: Yes

In January 2013, high flood flows in the Burnett River caused extensive damage to Ben Anderson Barrage which is located on the Burnett River at AMTD 25.9 km. The flood peaked at the Barrage on the 27 January 2013 at EL 17.54 m which was 15.41 metres above the concrete crest slab. There was a subsequent smaller peak on the 4 March 2013 at EL 9.36 m which was 7.23 metres above the crest slab. The estimated probability of the flood at Paradise Dam, 103 km upstream of the Barrage, was 1:170 AEP.

The Barrage storage was drawn down one metre to allow inspection of the flood damage on Wednesday 4 September 2013. A 50 metre wide section of the upstream 300 mm deep concreted rockfill in the central section of the barrage, along with the upstream 600 mm thick layer of rock pitching and underlying clay, had been removed. Material was removed to a depth of 1.5 metres just upstream of the crest slab and to a depth of 4.0 metres, twenty metres upstream of the slab. On the left side of the river, a section of the concrete rockfill 70 metres wide had settled approximately 0.5 metres. This was probably caused by the underlying supporting material being drawn through the cracks in the concreted rockfill by the flood flows. Large rock boulders up to 1.5 metres in diameter were deposited at the toe of the sloping face slab, downstream of the 50 metre wide section where the concreted rockfill and rock pitching had been removed.

Divers inspected the condition of the exposed 1.5 metre deep part of the upstream row of sheet piling supporting the crest slab. They visually observed the narrow exposed section above the water level and observed the remainder below the water level by touch. Apart from aquatic growth and clay on the surface, the piling was found to be in good condition with no corroded layers of steel. The primary barrier between the fresh and salt water on each side of the Barrage is the upstream Row 1 steel sheet piling. This row was driven to bedrock and varies in depth from 16 to 6 metres. In the new condition there would have been a seepage path through the clutches in the piling. A clay layer of 1200 mm minimum thickness and extending 15 metres upstream was provided to increase the seepage path to the upstream row of piling.

The stability of the Barrage relies on the ability of the upstream row of sheet piling to provide a secure water retaining barrier to prevent seepage. If sufficient material is removed from the upstream side, the piling may become unstable and the toe may move upstream. Seepage under the piles could lead to the formation of pipes in the supporting sand and eventually failure of the structure.

The following restoration options were considered for the upstream protection:

- Reinstatement like for like,
- Pinned concrete blocks or mattresses anchored at the upstream toe with concrete piles,
- Rockfilled gabions,
- Concrete slab anchored by new row of upstream piling.

After considering the options, the preferred option for the restoration of the Barrage is to construct a reinforced concrete sloping slab 6 metres wide attached to the existing upstream row of sheet piling and anchored along the upstream edge by a new row of sheet piling 6 metres deep. The aim of the new piling and slab arrangement is to retain the supporting material upstream of the existing row of sheet piling.

The insurance claim for the Ben Anderson barrage repairs is still being developed. A proportion of these costs will 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.

Material Projects 2018-22

The evenness in the spread of estimated project costs means there are no projects which exceed the materiality threshold for this service contract for the 2018-22 period.

Material Projects 2023-41

The evenness in the spread of estimated project costs means there are no projects which exceed the materiality threshold for this service contract for the 2023-41 period.

Appendix – Total Expenditure by Expense Type

Table 8 – Expenditure for Activity by Type

| | 2013 SunWater Actual \$'000 | % of 2013 Target % | 2014 SunWater Budget \$'000 | % of 2014 Target % | 2015 SunWater Budget \$'000 | % of 2015 Target % |
|---|--------------------------------------|-----------------------------|--------------------------------------|-----------------------------|--------------------------------------|-----------------------------|
| ROUTINE EXPENSES | | | | | | |
| Operations | | | | | | |
| Labour | 272 | | 172 | | 192 | |
| Materials | 6 | | 5 | | 6 | |
| Contractors | 29 | | 35 | | 26 | |
| Other | 242 | | 214 | | 304 | |
| Non-direct | 554 | | 381 | | 433 | |
| Operations Total | 1,103 | 153% | 807 | 108% | 961 | 128% |
| Preventative | | | | | | |
| Labour | 37 | | 107 | | 37 | |
| Materials | 7 | | 10 | | 5 | |
| Contractors | 13 | | 18 | | 100 | |
| Other | 1 | | 1 | | 0 | |
| Non-direct | 74 | | 207 | | 74 | |
| Preventative Total | 132 | 40% | 342 | 99% | 217 | 62% |
| Corrective | | | | | | |
| Labour | 31 | | 45 | | 9 | |
| Materials | 16 | | 21 | | 9 | |
| Contractors | 4 | | 12 | | 63 | |
| Other | 0 | | 0 | | 0 | |
| Non-direct | 70 | | 88 | | 19 | |
| Corrective Total | 122 | 93% | 165 | 121% | 100 | 72% |
| Electricity | 5 | 52% | 11 | 111% | 4 | 39% |
| Total Routine Expenses | 1,362 | 114% | 1,325 | 107% | 1,282 | 102% |
| NON-ROUTINE EXPENSES | | | | | | |
| Annuity Funded | | | | | | |
| R&E - Annuity Funded | 157 | | 672 | | 510 | |
| Corrective | 501 | | 2,556 | | 6,690 | |
| Other | 0 | | 0 | | 0 | |
| Non-direct | 287 | | 704 | | 1,105 | |
| Total Annuity Funded Non-Routine | 946 | 55% | 3,932 | 229% | 8,306 | 484% |
| TOTAL REGULATED EXPENSES | 2,308 | | 5,257 | | 9,587 | |
| Non-Annuity Funded | | | | | | |
| R&E - Non-Annuity Funded | 0 | | 0 | | 0 | |
| Non-direct | 0 | | 0 | | 0 | |
| Total Non-Annuity Funded | 0 | n/a | 0 | n/a | 0 | n/a |
| TOTAL EXPENSES | 2,308 | | 5,257 | | 9,587 | |