



2018/19 to 2023/24 Network Service Plan

Burdekin Haughton Bulk Water Service Contract

31 July 2018

Final

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Disclaimer

This Network Service Plan (NSP) has been prepared by SunWater to provide indicative information to our customers for the purpose of consultation. It contains estimates and forecasts which are based upon a number of assumptions. The actual financial performance of the Service Contract to which this NSP relates, and the operations and activities actually undertaken by SunWater during the relevant periods, may vary materially from the information contained in this NSP. This NSP should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this NSP in making decisions about your circumstances. SunWater will not be responsible or liable for any loss (including consequential loss), claim or damage (including in tort) that is in any way connected with the use of this NSP or the information contained within it.

Our plan for Burdekin Haughton

We’re focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Burdekin Haughton Bulk Water Service Contract continues to meet the needs and expectations of our diverse customer base.

In this Network Service Plan (NSP) we outline a range of proposed immediate refurbishment and longer-term improvement projects, and provide a detailed breakdown of anticipated costs for review.

Our focus during the 2018/19 to 2023/24 NSP period will be on maintaining an efficient and reliable water supply and continuing safe operations. Customers will also see improved transparency, openness to working together, a focus on efficiency gains, and more appropriate risk sharing, which hopefully results in lower costs.

It is important to us that our customers are consulted in making important decisions. We welcome and encourage your feedback on this NSP, and look forward to working with you to deliver the programs of work.

Travis Richards

General Manager North

1. Introduction

A Network Service Plan details a range of proposed immediate and longer-term improvement projects, and provides a detailed breakdown of anticipated costs for review.

NSPs are an important part of our asset management framework, feeding into our strategic asset management and corporate strategic plans, as illustrated in **Appendix 1**.

The purpose of this year’s NSP is twofold:

1. to consult with customers on routine and non-routine expenditure throughout the coming financial year
2. to present to customers SunWater’s projected efficient costs for the six year period from 2018/19 to 2023/24.

In particular, the NSP covers:

- past performance for routine and non-routine expenditure
- forecast routine and non-routine expenditure for 2018/19 to 2023/24.

In this NSP, the focus of consultation was the draft budget figures for 2018/19 and thereafter. We have retained prior year actual results in **Appendix 2** for reference, as requested by customers.

Input from customers is a valuable part of SunWater’s planning processes and ensures that we invest in areas which support the services we provide to customers. Figure 1 below shows how SunWater and customers work together in relation to NSPs. SunWater has consulted with the Burdekin River Irrigation Area Board (BRIA) on the draft NSP and feedback from BRIA has been considered and incorporated where appropriate.

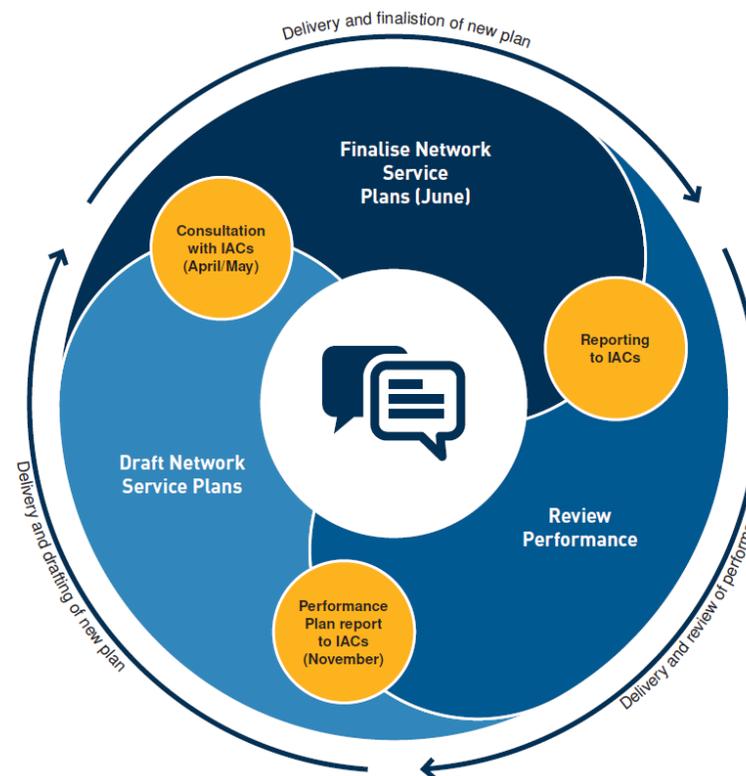
To have your say and shape future NSPs, please contact us via email or post:

Email: nspfeedback@sunwater.com.au

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

We consider and respond to all submissions, publishing all responses on our website.

Figure 1: Customer consultation and Network Service Plans



2. Delivering services to customers

At SunWater we are committed to working collaboratively with our customers to deliver value and fit-for-purpose water solutions. SunWater’s Customer Service Commitment can be viewed at: www.sunwater.com.au

2.1 Our customers

Our customers for the bulk water scheme include the Burdekin Haughton Water Supply Scheme, Lower Burdekin Water, riparian users and farmers with land adjacent to the Burdekin River. Water is also supplied for some industrial uses and to the towns of Clare, Millaroo and Dalbeg.

The water entitlements for each customer segment are shown in Table 1.

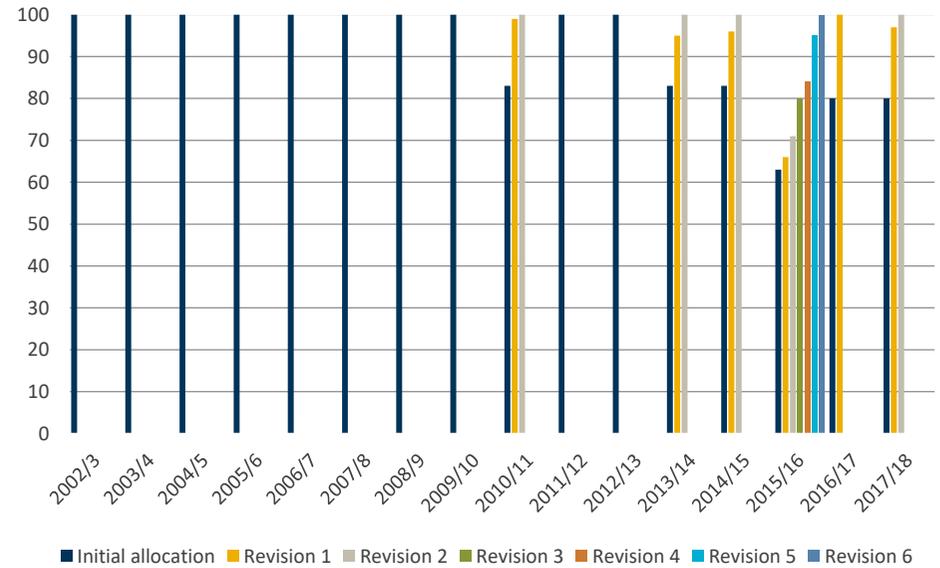
Table 1: Water entitlement and usage data¹

| Customer Segment | Total Water Entitlements (ML) | High Priority Water Entitlements (ML) | Medium Priority Water Entitlements (ML) | Water Deliveries 2016/17 (ML) |
|--|-------------------------------|---------------------------------------|---|-------------------------------|
| Irrigation | 635,213 | 0 | 635,213 | 502,176 |
| Urban | 10,537 | 10,537 | 0 | 7822 |
| Industrial | 20,820 | 19,779 | 1041 | 1543 |
| SunWater (excluding distribution loss) | 206,279 | 53,422 | 152,857 | 0 |
| SunWater distribution loss | 206,737 | 16,260 | 190,477 | 69,718 |
| Other | 6 | 0 | 6 | 50 |
| Total | 1,079,592 | 99,998 | 979,594 | 581,309 |

1. This table presents water entitlements and usage data for the bulk water supply scheme, the distribution system, Burdekin Town Water and Burdekin Moranbah Pipeline. Customers have expressed a preference for data to be presented in this manner.

The historical medium priority announced allocations for the Burdekin Haughton Bulk Water Service Contract are shown in Figure 2.

Figure 2: Medium Priority Announced Allocations¹



1. Data as at 28 February 2018.

The 2018/19 charges and cost per megalitre are shown in Table 2 below. For the full suite of charges that apply, refer to SunWater’s website.

Table 2: Irrigation charges for 2018/19¹

| Product | | 2018/19 (\$/ML) | Cost (\$/ML) ^{2,3} | Subsidy (\$/ML) |
|---|--|-----------------|-----------------------------|-----------------|
| Bulk water customers | | | | |
| Medium Priority Allocation Charge | Bulk Water Charge – Part A (fixed charge based upon entitlement) | 12.40 | 3.05 | N/A |
| Medium Priority Allocation Water | Bulk Water Charge – Part B (variable charge based upon usage) | 0.53 | 0.63 | 0.10 |
| Bulk water customers who are also customers of a distribution system | | | | |
| Medium Priority Allocation Charge | Bulk Water Charge – Part A (fixed charge based upon entitlement) | 3.40 | 3.05 | N/A |
| Medium Priority Allocation Water | Bulk Water Charge – Part B (variable charge based upon usage) | 0.53 | 0.63 | 0.10 |

1. This table includes bulk water charges only. For distribution charges (Part C and Part D) please refer to the Distribution Service Contract NSP.
2. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
3. The notional High Priority Allocation Charge cost per megalitre is \$6.33.

2.2 Service targets

SunWater and customers have agreed Water Supply Arrangements and Service Targets for the Burdekin Haughton Bulk Water Service Contract.

Table 3 below sets out our performance in 2016/17 against the service targets for: issuing notification of planned shutdowns; the duration of unplanned shutdowns; and the frequency of interruptions to supply.

In addition, SunWater will be setting targets for the time it takes to resolve complaints and will be able to report our performance against these targets in future NSPs.

Table 3: Service targets and performance

| Service target | | Target | Number of exceptions 2016/17 |
|--|---|----------------|------------------------------|
| Planned shutdowns – notification | For shutdowns planned to exceed 2 weeks | 8 weeks | 0 |
| | For shutdowns planned to exceed 3 days | 2 weeks | 0 |
| | For shutdowns planned to be less than 3 days | 5 days | 0 |
| Unplanned shutdowns – duration¹ | Unplanned shutdowns during Peak Demand Period | 48 hours | 0 |
| | Unplanned shutdowns outside Peak Demand Period | 5 working days | |
| Maximum number of interruptions² | Planned or unplanned interruptions per water year | 10 | 0 |

1. This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.
2. This is the total number of bulk and distribution customers in the scheme that have been interrupted in excess of the target.

2.3 Key infrastructure

Table 4 lists the key infrastructure used to deliver bulk water services to our customers in Burdekin Haughton.

Table 4: Key infrastructure

| Asset | Description | Total storage capacity (ML) |
|---------------------------|--|------------------------------------|
| Burdekin Falls Dam | Mass concrete main wall with ogee crest spillway. Includes 3 saddle dams. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> . | 1,860,000 |
| Clare Weir | Mass concrete structure. Incorporates a fish lock | 15,900 |
| Gorge Weir | Mass concrete structure | 9095 |
| Blue Valley Weir | | 3820 |
| Giru Weir | Earth and cemented rock fill between two parallel rows of sheet piling | 1025 |

3. Financial summary – revenue and expenditure

All financial figures in this report are presented in nominal dollars.

A high-level summary of the budgeted financial performance of the Burdekin Haughton Bulk Water Service Contract is presented in Table 5.

The revenue SunWater receives from urban and industrial customers is agreed by term contract. The revenue we receive from irrigation customers is determined by the Queensland Government based on recommendations made by the Queensland Competition Authority (QCA) as part of its review of irrigation charges and is intended to allow SunWater to recover its prudent and efficient costs of operating the Service Contract.

SunWater anticipates no material change to revenue for the Burdekin Haughton Bulk Water Service Contract in 2018/19.

In 2018/19, SunWater’s routine expenditure will increase primarily due to the move to increase the utilisation of SunWater resources for maintenance work and to reduce the spend on contractor services. Non-routine expenditure on projects within the Burdekin Haughton Bulk Water Service Contract will reduce in 2018/19, with a focus on projects that improve efficiency and performance, and allow us to deliver the best possible service to our customers. This will continue to be our focus throughout the upcoming price path period.

Further detail on the planned spend and annuity revenue is outlined on subsequent pages of this NSP and a further breakdown of expenditure by type can be found in **Appendix 2**.

Table 5: Service contract financial summary¹

| Burdekin Haughton Service Contract | 2014/15 Actual \$'000 | 2015/16 Actual \$'000 | 2016/17 Actual \$'000 | 2017/18 Estimate \$'000 | 2018/19 Forecast \$'000 |
|------------------------------------|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|
| Revenue | | | | | |
| Irrigation | 1507.3 | 1397.7 | 1371.4 | 1743.7 | 1600.4 |
| Community Service Obligation | - | - | - | 318.0 | 318.0 |
| Industrial ² | 6.1 | 18.3 | 54.3 | 55.1 | 56.5 |
| Urban ² | - | - | - | - | - |
| Revenue transfers ³ | 2799.5 | 3030.4 | 3435.3 | 3694.4 | 3726.9 |
| Drainage | - | - | - | - | - |
| Other | 92.5 | 78.8 | 64.7 | 65.2 | 66.8 |
| Insurance proceeds – flood | - | - | - | - | - |
| Revenue Total | 4405.4 | 4525.2 | 4925.6 | 5876.4 | 5768.5 |
| Less – Routine expenditure | (2515.2) | (2407.5) | (2823.2) | (3281.0) | (3420.3) |
| Less – Non-routine expenditure | | | | | |
| Annuity funded | (696.3) | (423.0) | (618.9) | (1755.3) | (1201.6) |
| Non annuity funded ⁴ | - | (7.1) | (3384.5) | (6413.3) | (7775.9) |
| Surplus (deficit) | 1194.0 | 1687.6 | (1901.0) | (5573.2) | (6629.2) |

- Totals may not add due to rounding.
- Forecast revenues for industrial and urban customers are based on current contractual arrangements.
- Revenue transfers represent the cost of bulk water supplies delivered through the distribution system(s) and the Burdekin Moranbah pipeline. The revenue accrues to the distribution system and pipeline system before it is transferred to the Bulk Water Service Contract as a contribution to the cost of the bulk water service.
- This is expenditure which has not been funded by irrigation customers. An example of this in the Burdekin Haughton Bulk Water Service Contract is the dam improvement program (DIP).

As part of our commitment to transparency, Figure 3 and Figure 4 show a high-level breakdown of total Service Contract costs. The item 'Annuity Contribution' refers to the annualised renewals annuity component of the Service Contract's total costs.

Figure 3: Breakdown of total service contract costs – 2018/19 forecast

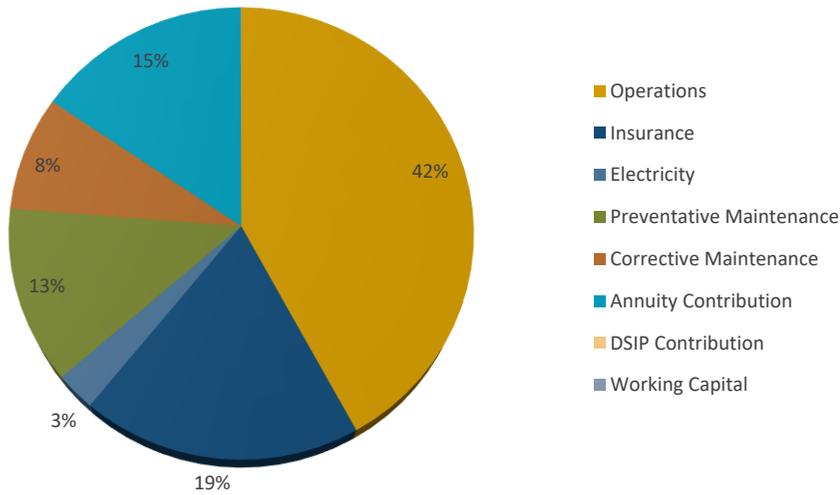
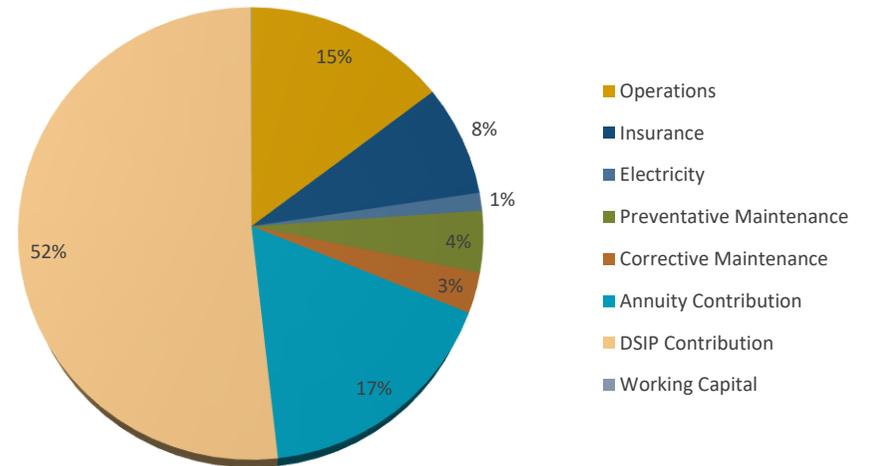


Figure 4: Breakdown of total service contract costs – 2019/20 to 2023/24 forecasts



4. Cost of delivering services – routine expenditure

Routine (or annual) expenditure includes funds for operations activities (operations, electricity and insurance), preventative maintenance and corrective maintenance.

SunWater has budgeted an increase in Burdekin Haughton Bulk Water Service Contract's routine operating expenditure in 2018/19 (refer to Table 6). SunWater's proposed budgets for routine operating expenditure for 2019/20 to 2023/24 are also presented in this table.

From 2019/20, SunWater has built into forecast costs an efficiency saving of 0.2 per cent every year (cumulative).

Following consultation with customers on the draft NSPs and a further review of potential savings in non-direct costs, SunWater has included an additional one-off reduction in routine non-direct expenditure from 2019/20 onwards comprising: an 8.00 per cent reduction in corporate support costs, a 1.00 per cent reduction in local area support costs and a 1.97 per cent reduction in indirect costs.

The data presented in Table 6 includes direct expenses and a share of local area support costs, indirect costs and corporate support costs. For a more detailed breakdown and explanation of these costs, refer to **Appendix 2**.

Table 6: Routine operating expenditure^{1,2}

| Burdekin Haughton Service Contract | 2016/17 | | | 2017/18 ³ | | 2018/19 ³ | | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|------------------------------------|------------------------|------------------------|-----------------|--------------------------|---|--------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | SunWater Actual \$'000 | QCA Recommended \$'000 | Variance \$'000 | SunWater Estimate \$'000 | 2016/17 QCA Recommended (adjusted) \$'000 | SunWater Forecast \$'000 | 2016/17 QCA Recommended (adjusted) \$'000 | SunWater Forecast \$'000 |
| Electricity | 101.8 | 126.5 | (24.7) | 138.6 | 129.7 | 110.0 | 132.9 | 129.4 | 128.7 | 133.0 | 136.4 | 133.8 |
| Insurance | 789.7 | 315.4 | 474.4 | 789.7 | 323.3 | 765.6 | 331.3 | 783.2 | 801.2 | 819.6 | 838.5 | 857.8 |
| Operations | 1114.2 | 2377.4 | (1263.3) | 1599.2 | 2436.9 | 1701.5 | 2497.8 | 1431.2 | 1468.6 | 1506.9 | 1546.2 | 1586.6 |
| Operations Total | 2005.8 | 2819.3 | (813.6) | 2527.5 | 2889.8 | 2577.1 | 2962.1 | 2343.7 | 2398.5 | 2459.5 | 2521.1 | 2578.2 |
| Preventative maintenance | 535.0 | 373.4 | 161.5 | 485.8 | 382.8 | 509.9 | 392.3 | 429.3 | 440.5 | 452.1 | 464.0 | 476.1 |
| Corrective maintenance | 282.5 | 235.9 | 46.6 | 267.6 | 241.8 | 333.3 | 247.8 | 281.4 | 288.6 | 296.1 | 303.7 | 311.5 |
| Routine Total | 2823.2 | 3428.6 | (605.5) | 3281.0 | 3514.4 | 3420.3 | 3602.2 | 3054.4 | 3127.6 | 3207.6 | 3288.8 | 3365.8 |

1. Totals may not add due to rounding.

2. SunWater's 2019/20 to 2023/24 budget figures are draft as at the time of consultation. These figures will not be locked down until late in the financial year prior.

3. For 2017/18 and 2018/19 SunWater has included and reported against the 2016/17 QCA recommended costs adjusted for inflation which was assumed to be 2.5%.

4.1 Operations

Burdekin Haughton Bulk Water Service Contract's total operations budget in 2018/19 is aligned with the QCA's recommended costs (adjusted for inflation). Higher than projected insurance costs have been offset by lower labour costs and associated overheads.

SunWater has revised our approach to the use of contractor labour for this Service Contract. Internal labour hours have been increased in 2018/19 and the budget for contractor services has been reduced to improve labour utilisation and increase cross skilling within our workforce.

For further detail on what is included in operations expenditure, refer to **Appendix 3**.

Electricity

One of the key challenges for SunWater is managing the cost of electricity. SunWater is therefore targeting several initiatives over the next 24 months to help manage these costs, including:

- annual tariff reviews to match electricity usage with the best electricity tariff
- testing the contestable market for potential savings
- ensuring our assets are operating as efficiently as possible
- operational management of usage to reduce the impact of demand charges.

Insurance

Insurance is one of SunWater's largest expenditure items and these costs have increased significantly in recent years due to multiple flood events in Queensland and global insurable events impacting premiums. Although SunWater is subject to market forces in the pricing of insurance premiums, we have also been actively managing insurance premium costs by reviewing coverage levels and policy specifications including deductibles to ensure that our insurance coverage is appropriate and reflective of the risks faced by our business.

Although insurance premiums are forecast to increase globally in 2018/19, SunWater is forecasting a small reduction in our insurance costs in 2018/19

compared to the 2017/18 budget as a result of the review of our insurance coverage and recent market testing.

4.2 Preventative maintenance

Preventative maintenance underpins the ongoing operational performance and service capacity of Burdekin Haughton Bulk Water Service Contract's physical assets.

Preventative maintenance is cyclical in nature with a typical interval of 12 months or less, however, the intervals can be longer. Burdekin Haughton Bulk Water Service Contract's preventative maintenance for 2018/19 is budgeted to be 29.97 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely related to the difference in the QCA's recommended contractor costs and SunWater's budgeted spend on contractors, which has reduced since 2017/18 as we are reducing our reliance on contractors and using SunWater resources.

For more information on what is included as preventative maintenance, refer to **Appendix 3**.

4.3 Corrective maintenance

Corrective maintenance is identified in several ways including:

- through the performance of preventative maintenance
- operation of assets and equipment
- operational inspections where defects are identified
- through continuous monitoring by control systems, hazard inspections, safety audits and from incident and accident investigation outcomes.

Corrective maintenance includes activities to correct unexpected failures or to return an asset to an acceptable level of performance or condition. While these are difficult to forecast with accuracy, history has shown that such events can be expected and need to be factored into expenditure forecasts. SunWater conducts two types of corrective maintenance: scheduled and emergency.

Corrective maintenance expenditure forecasts include provision for labour, materials and plant hire, but do not include costs of damage arising from major

unexpected events, such as floods. These costs are categorised as non-routine corrective maintenance, which is discussed in the following section.

Burdekin Haughton Bulk Water Service Contract's corrective maintenance for 2018/19 is budgeted to be 34.48 per cent above the QCA's recommended costs (adjusted for inflation). Similar to the variance in preventative maintenance, the QCA's recommended costs for contractors is considerably lower than actual expenditure.

Scheduled corrective maintenance

Scheduled corrective maintenance is maintenance that can be planned and scheduled. For a list of what this typically includes, refer to **Appendix 3**. This

work is managed on a risk and priority basis with as much forward planning as possible to cater for pricing cycles.

Emergency corrective maintenance

Emergency corrective maintenance (or breakdown maintenance) includes works required to restore system supply and capacity or equipment operation after an unplanned event. It is carried out immediately to restore normal operation or supply to customers or to meet regulatory obligations (eg rectify a safety hazard). For a list of what this typically includes, refer to **Appendix 3**.

5. Cost of delivering services – non-routine expenditure

SunWater’s approach to managing non-routine expenditure is underpinned by the concept of ‘optimised life cycle cost’, which seeks to optimise capital outlays and ongoing maintenance spend.

Our whole-of-life asset replacement and maintenance strategy looks at the risk and condition of each asset and uses this information to estimate the future work required to ensure it will continue to provide the required level of service into the future.

Having up-to-date knowledge of asset conditions is essential to this process. Information from our continuous program of asset inspections and condition assessments feeds into the annual review of the renewals program.

Non-routine expenditure is funded via an annuity. This expenditure could be capital or operating expenditure. The annuity approach acknowledges a long-term view of renewals spend and seeks to reduce the burden on future generations of water users.

The QCA applied a 20 year planning period for the purpose of calculating the 2012/13 to 2016/17 renewals annuity. For 2018/19 to 2023/24, SunWater is proposing to adopt a 30 year planning period. BRIA endorsed this proposal during consultation in June 2018. Our forecast annuity funded non-routine expenditure presented in Table 8 and elsewhere in this NSP reflects this agreement.

While the immediate program for the 2018/19 budget is well defined, estimates become more uncertain further into the planning timeline. As such, the program of works is not a specific forecast of when individual projects are expected to be executed, but rather a portfolio-level estimate based on the best-available risk and condition information for the Service Contract as a whole.

At SunWater, we focus on ensuring our assets are maintained to the required standard at the lowest cost. Our review of the renewals profiles also extends to considering the key asset replacement assumptions so that the profile better reflects likely spend each year and moves away from assuming assets are replaced at end of standard life, based on their replacement costs.

Table 8 sets out our non-routine annuity and non-annuity funded expenditure.

Details of the major non-routine projects planned for the period from 2018/19 to 2023/24 are set out in **Appendix 4**.

5.1 Dam improvement program

Under current Queensland Government policy, expenditure for the dam improvement program (DIP) is not recovered from customers. Table 7 shows forecast DIP expenditure, as well as the return on assets. This expenditure is non annuity funded.

Table 7: Dam improvement program¹

| Burdekin Haughton Service Contract | 2019/20 Forecast \$'000 | 2020/21 Forecast \$'000 | 2021/22 Forecast \$'000 | 2022/23 Forecast \$'000 | 2023/24 Forecast \$'000 |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| DIP Expenditure | 10,173.2 | 25,993.5 | 139,466.3 | 154,492.1 | 19,719.1 |
| DIP Contribution ² | - | 500.4 | 3694.4 | 9424.6 | 12,990.3 |
| DIP Contribution - % of Total Costs | 0.0% | 11.2% | 51.5% | 79.1% | 86.7% |

1. Based on estimates as at 31 July 2018. Subject to review.
2. The DIP contribution is based on an “as incurred” approach for transparency of cost impacts on customers to 2023/24.

Table 8: Non-routine expenditure¹

| Burdekin Houghton Service Contract | 2016/17 | | | 2017/18 ² | | 2018/19 ² | | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|------------------------------------|------------------------|------------------------|-----------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | SunWater Actual \$'000 | QCA Recommended \$'000 | Variance \$'000 | SunWater Estimate \$'000 | QCA Forecast \$'000 | SunWater Forecast \$'000 | QCA Forecast \$'000 | SunWater Forecast \$'000 |
| Annuity funded | | | | | | | | | | | | |
| Operations | 37.7 | - | 37.7 | 14.0 | - | - | - | - | - | - | - | - |
| Preventative maintenance | - | - | - | - | - | - | - | - | - | - | - | - |
| Corrective maintenance (flood) | 17.3 | - | 17.3 | - | - | - | - | - | - | - | - | - |
| Renewals | 563.9 | 1395.4 | (831.5) | 1741.3 | 1078.5 | 1201.6 | 1182.0 | 1840.9 | 1381.2 | 1091.7 | 932.3 | 1209.3 |
| Non-routine total | 618.9 | 1395.4 | (776.5) | 1755.3 | 1078.5 | 1201.6 | 1182.0 | 1840.9 | 1381.2 | 1091.7 | 932.3 | 1209.3 |
| Non annuity funded | | | | | | | | | | | | |
| Other | 3384.5 | | | 6413.3 | | 7775.9 | | 10,153.1 | 25,939.5 | 139,143.0 | 154,133.6 | 19,673.7 |

1. Totals may not add due to rounding.

2. The QCA Forecast for 2017/18 and 2018/19 are based upon the modelling undertaken by the QCA as part of the 2012 irrigation pricing review.

6. Annuity balance

Annuities are managed by SunWater on behalf of each Service Contract. They allow for customer charges to reflect a constant amount necessary to recoup the costs of refurbishment/rehabilitation of the assets over a pre-determined period of time. The forecast annuity balances, and the impacts of budgeted non-routine spend, are shown in Table 9 below.

The QCA and SunWater closing balances will differ due to differences in the expenditure profile allowed by the QCA in 2012 and actual expenditure incurred

by SunWater between 2012/13 and 2018/19. For example, in 2017/18, SunWater commenced an extensive maintenance/upgrade program for Clare Weir. This program includes a number of phases, spanning multiple years, to ensure a systematic maintenance program is embedded for this critical asset. The costs for this program of works make up a significant portion of the annuity funded expenditure for the next five years. Repairing damage caused by flood events in 2010/11 and 2016/17 (approximately \$115,000) has also contributed to the closing balance differences.

Table 9: Annuity balance¹

| Burdekin Houghton Service Contract | 2016/17 Actual \$'000 | 2017/18 Estimate \$'000 | 2018/19 Forecast \$'000 | 2019/20 Forecast \$'000 | 2020/21 Forecast \$'000 | 2021/22 Forecast \$'000 | 2022/23 Forecast \$'000 | 2023/24 Forecast \$'000 |
|---|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Annuity | | | | | | | | |
| Opening balance ² | 6592.0 | 7063.2 | 6448.2 | 6356.3 | 5003.5 | 5869.8 | 7112.7 | 8624.4 |
| Spend | (618.9) | (1755.3) | (1201.6) | (1840.9) | (1381.2) | (1091.7) | (932.3) | (1209.3) |
| Insurance proceeds receipts (if applicable) | | | | | | | | |
| Prior year | - | - | - | - | - | - | - | - |
| Current year | - | - | - | - | - | - | - | - |
| Annuity contribution ³ | 596.4 | 611.3 | 626.6 | 642.3 | 1958.0 | 1994.9 | 2032.4 | 2158.2 |
| Interest/financing costs | 493.7 | 529.0 | 483.0 | 476.1 | 289.5 | 339.7 | 411.6 | 499.1 |
| SunWater – Closing Balance | 7063.2 | 6448.2 | 6356.3 | 5633.7 | 5869.8 | 7112.7 | 8624.4 | 10,072.4 |
| QCA – Closing Balance | 7219.6 | 7293.2 | 7284.1 | | | | | |
| Difference | (156.4) | (844.9) | (927.8) | | | | | |

1. Totals may not add due to rounding.

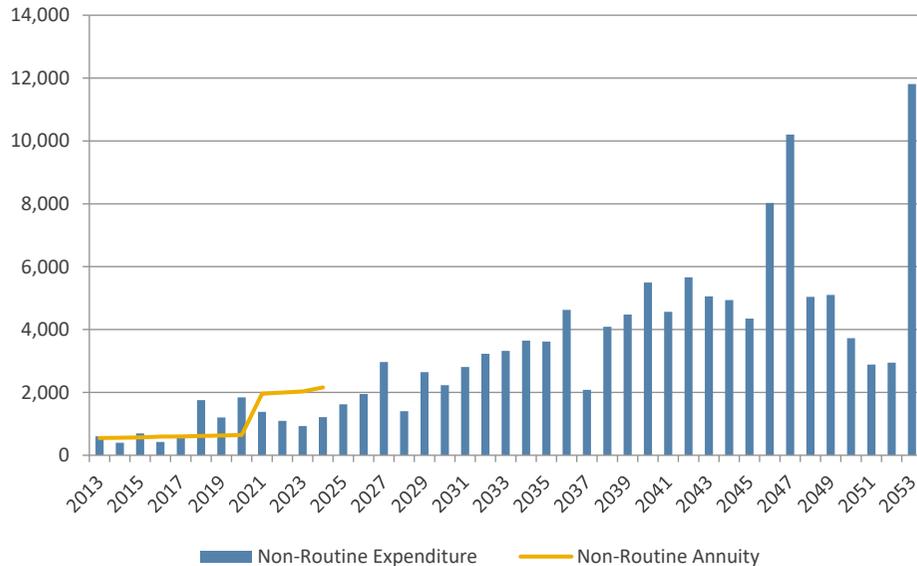
2. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. For example, flood repairs associated with an insurance claim that were still outstanding in 2012. These amounts have been carried forward to 2020/21 so that they can be considered as part of the QCA's review of expenditure for the new irrigation price path.

3. The annuity contribution is included in the prices paid by customers. It was set by the QCA for 2012/13 to 2016/17 and is rolled forward with CPI for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based upon SunWater's forecast and will be included as part of SunWater's submission to the QCA for the upcoming price review.

6.1 Overview of annuity-funded, non-routine projects to 2052/53

The estimated renewals expenditure out to 2052/53 is shown in Figure 5 below.

Figure 5: Annuity expenditure to 2052/53 (\$'000)



The renewals annuity presented above is calculated over a 30 year planning period, with projects forecast to occur up to 2052/53 affecting the renewals annuity. The greater the value of the project, the more significant impact upon the renewals annuity.

6.2 Options assessment

SunWater is committed to maintaining assets that are fit for service with the lowest possible lifecycle cost.

In response to a recommendation from the QCA in 2012, SunWater has been preparing options analyses for all material renewals projects within the planning period. SunWater now has the benefit of learnings, having applied this approach for number of years, and has reflected and considered whether it is the most efficient approach or whether there is another way to approach this which provides customers with reassurance that SunWater's renewals expenditure is prudent and justified.

Following consultation with BRIA and other Irrigator Advisory Committees across the state, SunWater has decided to implement a new procedure for options assessments.

SunWater will continue to prepare an options analysis and supporting investigation where:

- there is no obvious solution
- the current maintenance strategy is changing
- technology has changed significantly, or
- there is a high risk in the project execution.

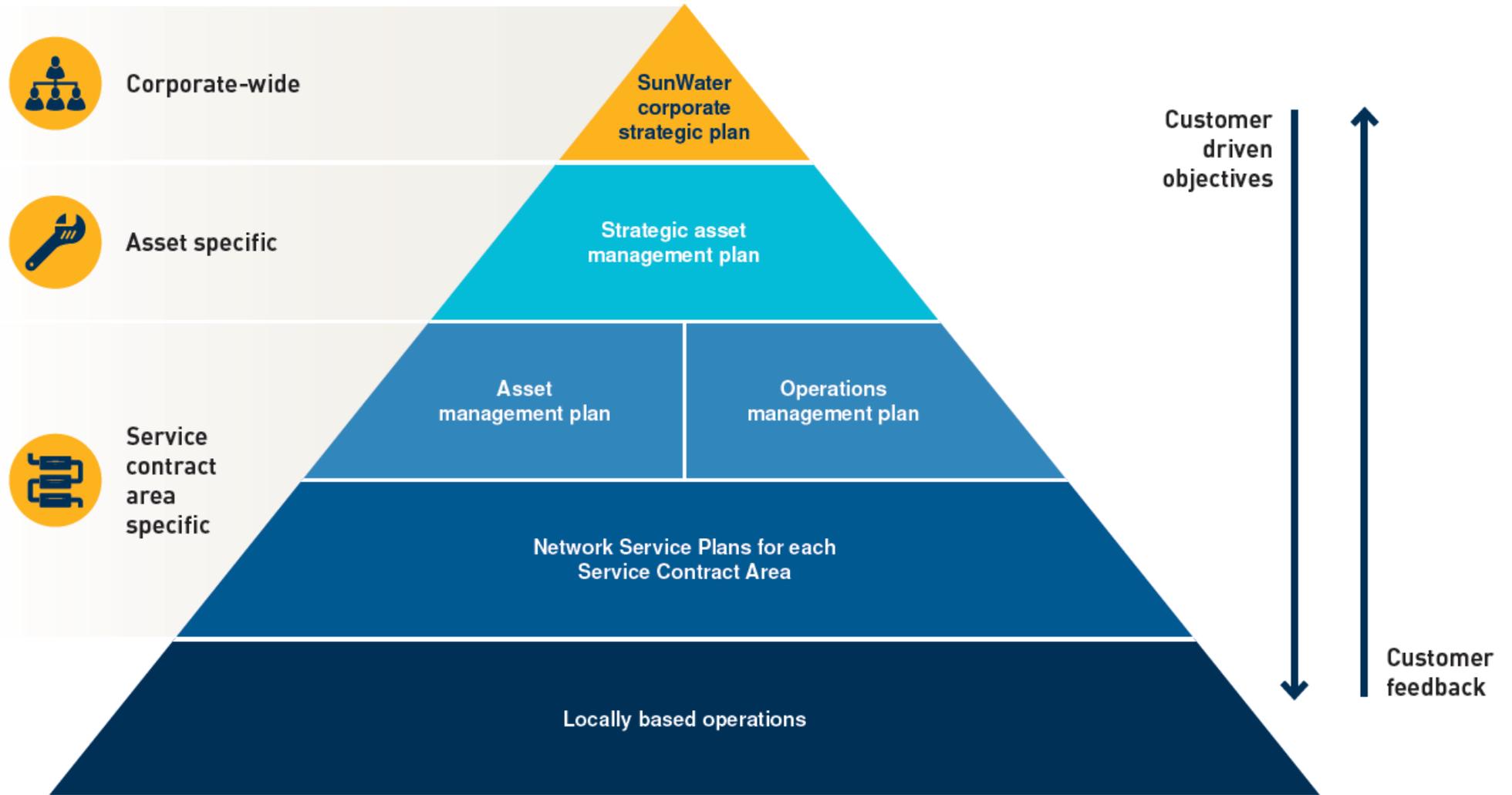
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

This approach takes the emphasis off the value of the renewals project and focuses on solutions and risk. It ensures that SunWater invests resources appropriately in those projects that would benefit from an options analysis.

SunWater will transition to this new approach, given options analyses have already been prepared for the 2018/19 material renewals projects. In the future, the Network Service Plans will identify renewals projects that we expect to prepare an options analysis for under the new approach. Customers will be able to provide feedback through the consultation process.

Appendix 1: SunWater's asset management framework

Figure 6: SunWater's asset management framework



Appendix 2: Total expenditure by expense type

Table 10: Expenditure for activity by type¹

| Burdekin Houghton Service Contract | 2014/15 | | | 2015/16 | | | 2016/17 | | | 2017/18 | | 2018/19 | | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|------------------------------------|------------------------|------------------------|-----------------|------------------------|------------------------|-----------------|------------------------|------------------------|-----------------|--------------------------|---|--------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | SunWater Actual \$'000 | QCA Recommended \$'000 | Variance \$'000 | SunWater Actual \$'000 | QCA Recommended \$'000 | Variance \$'000 | SunWater Actual \$'000 | QCA Recommended \$'000 | Variance \$'000 | SunWater Estimate \$'000 | 2016/17 QCA Recommended (Adjusted) \$'000 | SunWater Forecast \$'000 | 2016/17 QCA Recommended (Adjusted) \$'000 | SunWater Forecast \$'000 |
| Routine spend | | | | | | | | | | | | | | | | | | |
| Operations | | | | | | | | | | | | | | | | | | |
| Labour | 258.0 | 723.9 | (465.9) | 251.2 | 747.1 | (495.9) | 270.5 | 771.0 | (500.4) | 311.7 | 790.2 | 340.4 | 810.0 | 293.2 | 301.8 | 310.6 | 319.6 | 328.9 |
| Contractors | 97.1 | 18.6 | 78.5 | 49.4 | 19.2 | 30.2 | 36.9 | 19.5 | 17.5 | 350.0 | 20.0 | 50.0 | 20.5 | 42.8 | 43.8 | 44.9 | 46.0 | 47.1 |
| Materials | 12.4 | 22.9 | (10.5) | 17.5 | 23.7 | (6.2) | 12.1 | 24.1 | (12.0) | 22.0 | 24.7 | 20.0 | 25.3 | 17.1 | 17.5 | 17.9 | 18.3 | 18.7 |
| Electricity | 121.8 | 109.5 | 12.3 | 107.1 | 118.2 | (11.2) | 101.8 | 126.5 | (24.7) | 138.6 | 129.7 | 110.0 | 132.9 | 129.4 | 128.7 | 133.0 | 136.4 | 133.8 |
| Insurance | 677.1 | 304.8 | 372.2 | 569.3 | 310.1 | 259.2 | 789.7 | 315.4 | 474.4 | 789.7 | 323.3 | 765.6 | 331.3 | 783.2 | 801.2 | 819.6 | 838.5 | 857.8 |
| Other | 104.2 | 85.2 | 19.0 | 209.6 | 87.1 | 122.5 | 229.2 | 88.6 | 140.7 | 284.0 | 90.8 | 279.0 | 93.0 | 238.6 | 244.1 | 249.7 | 255.4 | 261.3 |
| Local area support costs | 190.6 | - | 190.6 | 216.0 | - | 216.0 | 232.5 | - | 232.5 | 243.2 | - | 420.7 | - | 356.9 | 366.2 | 375.8 | 385.6 | 395.6 |
| Corporate support costs | 134.1 | 729.5 | (595.4) | 112.6 | 716.9 | (604.3) | 129.1 | 732.6 | (603.5) | 204.0 | 750.9 | 221.3 | 769.7 | 172.2 | 176.7 | 181.3 | 186.0 | 190.9 |
| Indirect costs | 213.4 | 801.7 | (588.3) | 259.7 | 762.6 | (502.9) | 203.8 | 741.7 | (538.0) | 184.3 | 760.3 | 370.1 | 779.3 | 310.4 | 318.5 | 326.8 | 335.3 | 344.0 |
| Preventative maintenance | | | | | | | | | | | | | | | | | | |
| Labour | 106.5 | 104.8 | 1.7 | 102.8 | 108.2 | (5.4) | 138.7 | 111.7 | 27.1 | 77.9 | 114.4 | 110.4 | 117.3 | 95.1 | 97.9 | 100.8 | 103.7 | 106.7 |
| Contractors | 179.4 | 36.3 | 143.2 | 140.1 | 37.4 | 102.7 | 130.6 | 38.1 | 92.6 | 240.0 | 39.0 | 100.0 | 40.0 | 85.6 | 87.7 | 89.8 | 92.0 | 94.2 |
| Materials | 7.2 | 8.0 | (0.8) | 4.4 | 8.2 | (3.8) | 11.6 | 8.4 | 3.2 | 20.0 | 8.6 | 12.0 | 8.8 | 10.3 | 10.5 | 10.7 | 11.0 | 11.2 |
| Other | 5.8 | 7.6 | (1.8) | 8.3 | 7.8 | 0.5 | 6.1 | 7.9 | (1.9) | 16.0 | 8.1 | 9.0 | 8.3 | 7.7 | 7.9 | 8.1 | 8.2 | 8.4 |
| Local area support costs | 82.8 | - | 82.8 | 88.3 | - | 88.3 | 119.3 | - | 119.3 | 60.8 | - | 141.4 | - | 119.9 | 123.1 | 126.3 | 129.6 | 132.9 |
| Corporate support costs | 45.0 | 105.1 | (60.1) | 36.4 | 103.3 | (66.9) | 46.2 | 105.5 | (59.3) | 46.7 | 108.2 | 71.8 | 110.9 | 55.9 | 57.3 | 58.8 | 60.4 | 61.9 |
| Indirect costs | 78.4 | 111.4 | (33.0) | 93.2 | 105.7 | (12.5) | 82.4 | 101.9 | (19.4) | 24.3 | 104.4 | 65.3 | 107.0 | 54.8 | 56.2 | 57.7 | 59.2 | 60.7 |
| Corrective maintenance | | | | | | | | | | | | | | | | | | |
| Labour | 9.4 | 54.1 | (44.6) | 18.6 | 55.8 | (37.2) | 33.4 | 57.6 | (24.2) | 20.0 | 59.0 | 60.0 | 60.5 | 51.7 | 53.2 | 54.7 | 56.3 | 58.0 |
| Contractors | 163.1 | 11.2 | 151.9 | 81.2 | 11.6 | 69.6 | 148.7 | 11.8 | 136.9 | 160.0 | 12.1 | 90.0 | 12.4 | 77.1 | 78.9 | 80.8 | 82.8 | 84.8 |
| Materials | 2.4 | 32.8 | (30.4) | 2.4 | 33.8 | (31.4) | 28.1 | 34.4 | (6.3) | 35.0 | 35.2 | 24.0 | 36.1 | 20.5 | 21.0 | 21.5 | 22.0 | 22.5 |
| Other | 0.6 | 21.8 | (21.2) | 2.4 | 22.5 | (20.1) | 5.3 | 22.9 | (17.6) | 12.0 | 23.5 | 8.0 | 24.1 | 6.8 | 7.0 | 7.2 | 7.3 | 7.5 |
| Local area support costs | 6.8 | - | 6.8 | 16.0 | - | 16.0 | 28.7 | - | 28.7 | 15.6 | - | 76.8 | - | 65.1 | 66.8 | 68.6 | 70.4 | 72.2 |
| Corporate support costs | 11.6 | 56.3 | (44.6) | 9.5 | 55.4 | (45.9) | 18.4 | 56.7 | (38.2) | 18.8 | 58.1 | 39.0 | 59.5 | 30.4 | 31.1 | 32.0 | 32.8 | 33.6 |
| Indirect costs | 7.2 | 57.4 | (50.2) | 11.5 | 54.5 | (43.0) | 19.8 | 52.5 | (32.7) | 6.2 | 53.8 | 35.5 | 55.2 | 29.8 | 30.5 | 31.3 | 32.1 | 33.0 |
| Routine total | 2515.2 | 3402.9 | (887.7) | 2407.5 | 3389.2 | (981.6) | 2823.2 | 3428.6 | (605.5) | 3281.0 | 3514.4 | 3420.3 | 3602.2 | 3054.4 | 3127.6 | 3207.6 | 3288.8 | 3365.8 |
| Non-routine spend | | | | | | | | | | | | | | | | | | |
| Labour | 110.1 | 37.9 | 72.2 | 81.1 | 47.8 | 33.3 | 156.1 | 225.4 | (69.3) | 229.9 | 169.6 | 136.9 | 185.9 | 218.7 | 202.6 | 181.4 | 136.0 | 188.3 |
| Contractors | 344.9 | 68.9 | 276.1 | 153.0 | 76.0 | 77.0 | 155.5 | 255.1 | (99.6) | 1081.2 | 218.0 | 561.6 | 238.9 | 718.0 | 320.1 | 211.1 | 277.0 | 302.5 |
| Materials | 11.6 | 28.5 | (16.9) | 13.3 | 40.6 | (27.3) | 2.6 | 245.3 | (242.7) | 14.0 | 178.3 | 191.7 | 195.4 | 346.7 | 332.2 | 217.8 | 143.2 | 195.8 |
| Other | 8.2 | 16.4 | (8.2) | 10.4 | 22.1 | (11.8) | 24.7 | 126.2 | (101.5) | 25.9 | 94.4 | 47.2 | 103.5 | 86.3 | 67.3 | 78.8 | 75.7 | 105.4 |
| Local area support costs | 79.7 | 49.4 | 30.3 | 69.7 | 54.4 | 15.3 | 134.3 | 293.6 | (159.3) | (1.7) | 221.3 | 94.2 | 242.5 | 170.2 | 171.7 | 150.6 | 115.0 | 156.9 |
| Corporate support costs | 57.1 | - | 57.1 | 31.2 | - | 31.2 | 52.9 | - | 52.9 | 334.2 | - | 89.0 | - | 181.5 | 168.2 | 150.6 | 112.9 | 156.3 |
| Indirect costs | 84.7 | 45.8 | 38.9 | 64.3 | 48.9 | 15.4 | 92.8 | 249.7 | (156.9) | 71.8 | 196.9 | 81.0 | 215.8 | 119.3 | 119.2 | 101.4 | 72.5 | 104.2 |
| Non-routine total | 696.3 | 246.9 | 449.4 | 423.0 | 289.8 | 133.1 | 618.9 | 1395.4 | (776.5) | 1755.3 | 1078.5 | 1201.6 | 1182.0 | 1840.9 | 1381.2 | 1091.7 | 932.3 | 1209.3 |
| Total spend | 3211.5 | 3649.8 | (438.3) | 2830.5 | 3679.0 | (848.5) | 3442.1 | 4824.0 | (1382.0) | 5036.3 | 4592.9 | 4621.8 | 4784.2 | 4895.3 | 4508.9 | 4299.3 | 4221.1 | 4575.2 |

1. Totals may not add due to rounding.

Direct costs

Direct costs are those costs which are able to be directly attributable to either an asset or a service contract eg maintenance or insurance of an asset or the electricity and other operations costs for a service contract.

Local area support costs

Local area support costs are spread across service contracts managed in each locality. They are costs which support local people doing their jobs eg regional accommodation costs, local administration support and training.

In 2018/19 the Burdekin Haughton Bulk Water Service Contract is allocated 3.034 per cent of the forecast total local area support costs. Forecast local overheads in 2018/19 are higher than previous years and now more closely reflect actual local overheads in each region rather than local overheads averaged across SunWater.

Indirect costs

Indirect cost pools capture costs such as billing and customer support, irrigation pricing regulation and asset management (including dam safety, asset systems, channels and drainage) that have not been directly charged. They also include flood room operations, the Inspector-General Emergency Management (IGEM) emergency management program, water planning, hydrographic services, and environmental support costs. Indirect costs are based on a user pays approach eg service contracts without a dam or weir are not apportioned dam safety costs.

In 2018/19 the Burdekin Haughton Bulk Water Service Contract is allocated 2.672 per cent of the forecast total indirect costs. Increases in indirect costs allocated to Operations are largely driven by new IGEM costs, which are \$141,000 in 2018/19 for this Service Contract.

Corporate support costs

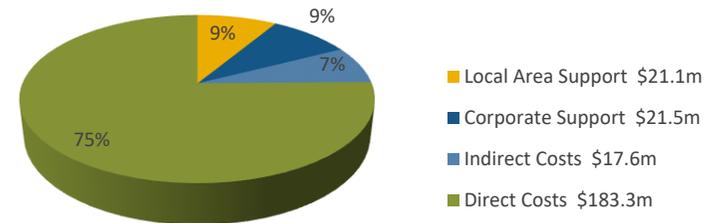
Corporate support costs are more generic than indirect costs and local area support costs, and are spread across all service contacts based on direct labour. They include the cost of human resources and payroll, information and communications technology, corporate communications, legal, property, finance,

and internal audit, plus the costs of the Chief Executive Officer, Chief Financial Officer and the SunWater Board, where these costs are not directly charged to activities within service contracts.

In 2017/18 SunWater completed a corporate restructure which resulted in a net reduction of 20 positions from the business and a reduction in total corporate overhead costs. Despite this, corporate overheads allocated to each service contract have increased since 2017/18. Contributing factors to the increase are: the transfer of St George and potential transfer of Dawson distribution schemes to locally managed entities and less charging of labour to direct costs.

In 2018/19 the Burdekin Haughton Bulk Water Service Contract is allocated 1.544 per cent of the forecast total corporate support costs.

Figure 7: Total SunWater cost pools – 2018/19 forecast



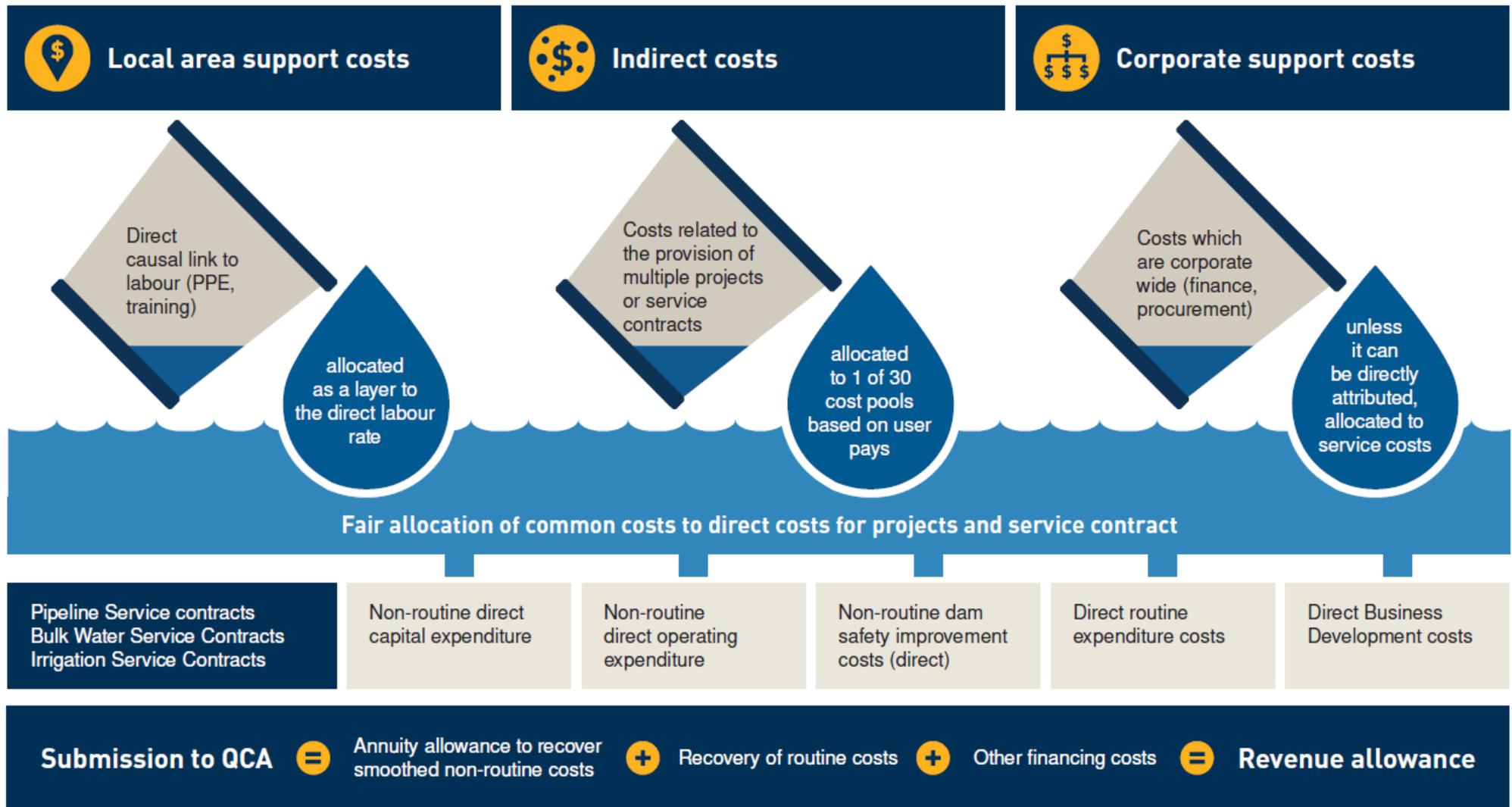
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater's methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and the allocation of corporate support costs to direct expenses. We also:

- removed the cascading of corporate overheads into indirect costs
- made the local overhead rate specific to each region
- simplified the cost drivers to labour only, removing the 5 per cent on direct cash costs excluding labour and electricity.

Forecast figures contained in this NSP reflect this change in approach.

Figure 7 below illustrates the allocation of costs associated with providing services.

Figure 8: How are SunWater's costs allocated to each service contract?



Appendix 3: Routine expenditure

Operations

Operations expenditure includes day-to-day costs associated with management of the Service Contract, water delivery and meeting compliance obligations. Specific activities include the direct and non-direct costs of:

- scheduling and delivering water, including processing water orders, releasing water, and monitoring customer deliveries
- Emergency Action Plans and seasonal event responses
- meter reading
- administration of water accounts, billing and receipting payments
- customer management, including enquiries, complaints and maintaining the customer service help desk
- Service Contract management, including licences and permits, rates, land management, planning and reporting
- insurance
- monitoring the security of infrastructure and unauthorised access
- managing engagement associated with the Service Contract
- managing enquiries from adjoining landholders and developers that require input from and negotiations with SunWater's property and legal sections
- daily dam inspections and other surveillance activities.

Preventative maintenance

Preventative maintenance for the Burdekin Haughton Bulk Water Service Contract includes:

- Condition monitoring — the inspection, testing or measurement of physical assets to report and record condition and performance to determine

maintenance requirements. Condition monitoring is carried out on electrical, mechanical and civil assets.

- Servicing — planned maintenance activities carried out routinely on physical assets including valves, gauging stations, cranes, sump pumps and associated equipment.
- Weed control — management of weeds, including spraying and other activities to control nuisance and noxious weeds.

Scheduled corrective maintenance

Scheduled corrective maintenance varies by asset type and typically includes:

- Service Contract roads:
 - repairing pot holes and grading roads
 - repairing, replacing, and painting guide posts and signs.
- Storages (headworks and weirs):
 - repairing control gates, valves and concrete structures
 - repairing walls, embankments and spillways.
- Meters:
 - repairing bulk water meters and customer meters.

Emergency corrective maintenance

Emergency corrective maintenance typically includes responding to theft or vandalism associated with Service Contract assets.

Appendix 4: Non-routine projects for 2018/19 to 2023/24

Non-routine projects are asset-related projects required to support service delivery which are undertaken less frequently than annually.

Table 11: Non-routine projects (or planning items) 2018/19 to 2023/24

| Year | Project Title | Project Scope | Budget (\$'000) |
|---------|---|---|-----------------|
| 2018/19 | Clare Weir – Hydraulic system upgrade (Stage 2) | The Clare Weir hydraulic system has been underperforming for many years mainly due to design inefficiencies. This is Stage 2 of a multi-year project to redesign and improve the hydraulic system. | 608 |
| | Burdekin Falls Dam – 20 year dam safety review | This is the commencement of the 20 year safety review of Burdekin Falls Dam. The safety review assesses the condition of the dam against current standards and design guidelines before the recommendations are risk assessed for action. | 143 |
| | Burdekin Falls Dam – Transformer installation x2 | The two high voltage transformers at the dam are in poor condition. This project will replace both of them. | 244 |
| | Clare Weir – Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) upgrade | This is the continuation of the PLC and SCADA upgrade at Clare Weir. It should not affect or be affected by the hydraulic system upgrade. | 84 |
| | Other works | There are 3 other non-routine projects for 2018/19. | 122 |
| | 2018/19 Total | | 1201 |
| 2019/20 | Clare Weir – Hydraulic system upgrade (Stage 3) | The Clare Weir hydraulic system has been underperforming for many years mainly due to design inefficiencies. This is Stage 3 of a multi-year project to redesign and improve the hydraulic system. | 781 |
| | Burdekin Falls Dam – Sewage treatment plant | Jacobs recommended that the sewage treatment plant sludge be removed and the aerating blower replaced to improve efficiency of water treatment. This is in preparation for the dam safety upgrade site work. | 249 |
| | Burdekin Falls Dam – 20 year dam safety review | This is the continuation of the 20 year safety review of Burdekin Falls Dam. The safety review assesses the condition of the dam against current standards and design guidelines before the recommendations are risk assessed for action. | 146 |

| Year | Project Title | Project Scope | Budget (\$'000) |
|----------------|--|--|-----------------|
| | Burdekin Falls Dam – Bulkhead gate refurbishment | The bulkhead did not seal adequately during the 2017 comprehensive inspection. The gate is also distorted. The seals will be replaced and the gate straightened out prior to work on the three conduits in later years. | 113 |
| | Other works | There are 23 other non-routine projects for 2019/20. | 552 |
| | 2019/20 Total | | 1841 |
| 2020/21 | Clare Weir – Hydraulic system upgrade (Stage 4) | The Clare Weir hydraulic system has been underperforming for many years mainly due to design inefficiencies. This is Stage 4 of a multi-year project to redesign and improve the hydraulic system. | 644 |
| | Burdekin Falls Dam – Baulks refurbishment | The baulks at the dam all require patch painting to remove corrosion. Costs have been determined based on the work being done at the dam which requires encapsulation of the sand used to remove the paint. | 275 |
| | Burdekin Falls Dam – Radial gate 1 refurbishment | The 2017 comprehensive inspection recommended that all three radial gates be refurbished by repainting and replacing seals. This is the first of the three gates to be refurbished. | 99 |
| | Burdekin Falls Dam – Radial gate 1 refurbishment | Prior to the gate refurbishment, safe access is required to be installed. Currently an uncertified ladder is used. Properly designed and manufactured ladders and walkways will be installed. | 55 |
| | Other works | There are 13 other non-routine projects for 2020/21. | 308 |
| | 2020/21 Total | | 1381 |
| 2021/22 | Clare Weir – Hydraulic system upgrade (Stage 5) | The Clare Weir hydraulic system has been underperforming for many years mainly due to design inefficiencies. This is Stage 5 of a multi-year project to redesign and improve the hydraulic system. | 468 |
| | Burdekin Falls Dam – Comprehensive inspection | SunWater conducts comprehensive inspections on its dams every five years. This allows us to maintain a current knowledge of the asset condition and risks so projects can be brought in and deferred as needed in order to maintain the asset in serviceable condition. This is a requirement of the dam safety condition schedule for Burdekin Falls Dam. | 124 |
| | Burdekin Falls Dam – Road refurbishment | The internal roads at the dam are in a deteriorating condition. This project will reseal them, fill potholes and improve drainage. | 236 |

| Year | Project Title | Project Scope | Budget (\$'000) |
|----------------|--|--|-----------------|
| | Burdekin Falls Dam – Radial gate 2 refurbishment | The 2017 comprehensive inspection recommended that all three radial gates be refurbished by repainting and replacing seals. This is the second of the three gates to be refurbished. | 72 |
| | Burdekin Falls Dam – Radial gate 2 refurbishment | Prior to the gate refurbishment, safe access is required to be installed. Currently an uncertified ladder is used. Properly designed and manufactured ladders and walkways will be installed. | 39 |
| | Other works | There are 4 other non-routine projects for 2021/22. | 152 |
| | 2021/22 Total | | 1091 |
| 2022/23 | Clare Weir – Hydraulic system upgrade (Stage 6) | The Clare Weir hydraulic system has been underperforming for many years mainly due to design inefficiencies. This is Stage 6 of a multi-year project to redesign and improve the hydraulic system. | 667 |
| | Burdekin Falls Dam – Radial gate 3 refurbishment | The 2017 comprehensive inspection recommended that all three radial gates be refurbished by repainting and replacing seals. This is last of the three gates to be refurbished. | 22 |
| | Burdekin Falls Dam – Radial gate 3 refurbishment | Prior to the gate refurbishment, safe access is required to be installed. Currently an uncertified ladder is used. Properly designed and manufactured ladders and walkways will be installed. | 40 |
| | Burdekin Falls Dam – Dissipater repairs | The dissipater downstream of the penstock gates is scoured away to the extent that the reinforcement is exposed. The concrete will be cut out where needed and replaced. | 76 |
| | Burdekin Falls Dam – Penstock reline x3 | The 2017 comprehensive inspection recommended that the three penstock liners be refurbished as they were corroding. | 40 |
| | Gorge Weir – Comprehensive inspection | SunWater conducts comprehensive inspections on its weirs every five years. This allows us to maintain a current knowledge of the asset condition and risks so projects can be brought in and deferred as needed in order to maintain the asset in serviceable condition. | 25 |
| | Other works | There are 4 other non-routine projects for 2022/23. | 62 |
| | 2022/23 Total | | 932 |

| Year | Project Title | Project Scope | Budget (\$'000) |
|---------|--|--|-----------------|
| 2023/24 | Clare Weir – Hydraulic system upgrade (Stage 7) | The Clare Weir hydraulic system has been underperforming for many years mainly due to design inefficiencies. This is Stage 7 of a multi-year project to redesign and improve the hydraulic system. | 452 |
| | Clare Weir – Access road refurbishment | This is an allowance to refurbish the left and right bank access roads and ramps at Clare Weir. A condition assessment in 2022/23 will determine if this work will proceed. | 248 |
| | Clare Weir – Refurbish ladders, walkways and handrails | This is an allowance to refurbish ladders, walkways and handrails at Clare Weir. A condition assessment in 2022/23 will determine if this work will proceed. | 69 |
| | Burdekin Falls Dam – Ventilation fan replacement | This is an allowance to replace the upper and lower ventilation fans and systems at the dam. A condition assessment in 2022/23 will determine if this work will proceed. | 116 |
| | Burdekin Falls Dam – Sewage treatment plant | This is an allowance to replace the control unit for the sewage treatment plant at the dam. A condition assessment in 2022/23 will determine if this work will proceed. | 69 |
| | Other works | There are 14 other non-routine projects for 2023/24. | 255 |
| | 2023/24 Total | | 1209 |



Contact us

To have your say and shape future NSPs, please contact us via email or post:

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Post: NSP Feedback
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Brisbane Qld 4002

We consider and respond to all submissions, publishing all responses on our website.

Addendum to the 2018/19 to 2023/24 Network Service Plan

Burdekin Haughton Bulk Water Service
Contract

6 November 2018

Final

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How to read this addendum

Several changes have been made to our forecast costs since we published our 2019 Network Service Plan for the Burdekin Houghton Bulk Water Service Contract in July 2018. We have therefore prepared this addendum to aid our customers' understanding of the changes and to assist the Queensland Competition Authority (QCA) in their review.

We have:

- updated for 2017/18 actual expenditure. This has positively impacted the annuity balances for this service contract going forward, when compared to the 2019 Network Service Plan.
- revised market parameters, such as escalators and the Weighted Average Cost of Capital, for the latest available information
- used the scheme's 15-year average water usage over the 2002/03 to 2016/17 period to determine the Part B cost per megalitre
- updated dam improvement program (DIP) cost estimates.

Note:

- All financial figures contained in this addendum are nominal dollars.
- Totals may not add due to rounding.

Table 1: Irrigation charges for 2018/19¹ – Restatement of Table 2 from the 2019 Network Service Plan

| Product | | 2018/19 (\$/ML) | Cost (\$/ML)^{2,3} | Subsidy (\$/ML) |
|---|---|----------------------------|---------------------------------------|----------------------------|
| Bulk water customers | | | | |
| Medium Priority Allocation Charge | Bulk Water Charge – Part A (fixed charge based upon entitlement) | 12.40 | 3.11 | N/A |
| Medium Priority Allocation Water | Bulk Water Charge – Part B (variable charge based upon usage) | 0.53 | 0.61 | 0.08 |
| Bulk water customers who are also customers of a distribution system | | | | |
| Medium Priority Allocation Charge | Bulk Water Charge – Part A (fixed charge based upon entitlement) | 3.40 | 3.11 | N/A |
| Medium Priority Allocation Water | Bulk Water Charge – Part B (variable charge based upon usage) | 0.53 | 0.61 | 0.08 |

1. This table includes bulk water charges only. For distribution charges (Part C and Part D) please refer to the Addendum to the Distribution Service Contract NSP.
2. Costs reflect lower bound cost recovery, ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
3. The notional High Priority Allocation Charge cost per megalitre is \$6.39.

Table 2: Routine operating expenditure¹ – Restatement of Table 6 from the 2019 Network Service Plan

| | 2016/17 | | | 2017/18 ² | | 2018/19 ² | | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|--------------------------|------------------------|------------------------|-----------------|------------------------|---|--------------------------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | SunWater Actual \$'000 | QCA Recommended \$'000 | Variance \$'000 | SunWater Actual \$'000 | 2016/17 QCA Recommended (adjusted) \$'000 | SunWater Forecast \$'000 | 2016/17 QCA Recommended (adjusted) \$'000 | SunWater Forecast \$'000 |
| Electricity | 101.8 | 126.5 | (24.7) | (0.7) | 129.7 | 110.0 | 132.9 | 122.4 | 119.6 | 123.8 | 134.7 | 133.9 |
| Insurance | 789.7 | 315.4 | 474.4 | 721.2 | 323.3 | 765.6 | 331.3 | 781.3 | 799.2 | 817.6 | 836.4 | 855.7 |
| Operations | 1114.2 | 2377.4 | (1263.3) | 1768.6 | 2436.9 | 1701.5 | 2497.8 | 1428.1 | 1464.5 | 1501.9 | 1539.6 | 1578.2 |
| Operations Total | 2005.8 | 2819.3 | (813.6) | 2489.1 | 2889.8 | 2577.1 | 2962.1 | 2331.8 | 2383.4 | 2443.3 | 2510.7 | 2567.7 |
| Preventative maintenance | 535.0 | 373.4 | 161.5 | 427.8 | 382.8 | 509.9 | 392.3 | 428.4 | 439.4 | 450.6 | 461.9 | 473.6 |
| Corrective maintenance | 282.5 | 235.9 | 46.6 | 399.3 | 241.8 | 333.3 | 247.8 | 280.7 | 287.8 | 295.1 | 302.4 | 310.0 |
| Routine Total | 2823.2 | 3428.6 | (605.5) | 3316.2 | 3514.4 | 3420.3 | 3602.2 | 3040.9 | 3110.6 | 3189.0 | 3275.1 | 3351.2 |

1. SunWater's 2019/20 to 2023/24 budget figures are draft as at the time of consultation. These figures will not be locked down until late in the financial year prior.
2. For 2017/18 and 2018/19 SunWater has included and reported against the 2016/17 QCA recommended costs adjusted for inflation which was assumed to be 2.5%.

Table 3: Dam improvement program¹ – Restatement of Table 7 from the 2019 Network Service Plan

| | 2019/20 Forecast \$'000 | 2020/21 Forecast \$'000 | 2021/22 Forecast \$'000 | 2022/23 Forecast \$'000 | 2023/24 Forecast \$'000 |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| DIP Expenditure | 8691.3 | 31,641.7 | 143,423.2 | 155,216.4 | 14,027.8 |
| DIP Contribution ² | - | 640.4 | 4199.5 | 10,348.7 | 14,032.7 |
| DIP Contribution - % of Total Costs | 0.0% | 14.0% | 55.5% | 81.7% | 88.7% |

1. Based on estimates as at 23 October 2018.
2. The DIP contribution is based on an "as incurred" approach for transparency of cost impacts on customers to 2023/24.

Table 4: Annuity balance – Restatement of Table 9 from the 2019 Network Service Plan

| | 2016/17 Actual \$'000 | 2017/18 Actual \$'000 | 2018/19 Forecast \$'000 | 2019/20 Forecast \$'000 | 2020/21 Forecast \$'000 | 2021/22 Forecast \$'000 | 2022/23 Forecast \$'000 | 2023/24 Forecast \$'000 |
|---|-----------------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Annuity | | | | | | | | |
| Opening balance ¹ | 6592.0 | 7063.2 | 7363.3 | 7339.8 | 6059.2 | 6927.9 | 8173.5 | 9688.9 |
| Spend | (618.9) | (840.2) | (1201.6) | (1840.9) | (1381.2) | (1091.7) | (932.3) | (1209.3) |
| Insurance proceeds receipts (if applicable) | | | | | | | | |
| Prior year | - | - | - | - | - | - | - | - |
| Current year | - | - | - | - | - | - | - | - |
| Annuity contribution ² | 596.4 | 611.3 | 626.6 | 640.7 | 1895.6 | 1932.3 | 1969.7 | 2094.5 |
| Interest/financing costs | 493.7 | 529.0 | 551.5 | 549.8 | 354.3 | 405.1 | 477.9 | 566.5 |
| SunWater – Closing balance | 7063.2 | 7363.3 | 7339.8 | 6689.4 | 6927.9 | 8173.5 | 9688.9 | 11,140.6 |
| QCA – Closing balance | 7219.6 | 7293.2 | 7284.1 | | | | | |
| Difference | (156.4) | 70.1 | 55.8 | | | | | |

1. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. Table 5 provides further details.
2. The annuity contribution is included in the prices paid by customers. It was set by the QCA for 2012/13 to 2016/17 and is rolled forward with the Consumer Price Index (CPI) for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based on SunWater's forecast.

Table 5: Adjustments to 2020/21 opening annuity balance

| Adjustment | \$'000 |
|---------------------------------------|--------------|
| Actual spend adjustment | 14 |
| Annuity income difference | (487) |
| Intersafe project spend adjustment | 0 |
| Interest difference | 114 |
| Alignment to previously reported data | 2 |
| Interest | (273) |
| Total | (630) |

Table 6: Cost building blocks and notional cost allocations

| | 2018/19 Forecast \$'000 | 2019/20 Forecast \$'000 | 2020/21 Forecast \$'000 | 2021/22 Forecast \$'000 | 2022/23 Forecast \$'000 | 2023/24 Forecast \$'000 |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Cost building blocks | | | | | | |
| Routine costs | 3420.3 | 3040.9 | 3110.6 | 3189.0 | 3275.1 | 3351.2 |
| Non-routine costs (Annuity contribution) | 626.6 | 640.7 | 1895.6 | 1932.3 | 1969.7 | 2094.5 |
| Dam improvement program ¹ | - | - | - | - | - | - |
| Working capital | 2.7 | 2.5 | - | - | - | - |
| Revenue offsets | - | - | - | - | - | - |
| Transfers (Distribution losses) | (766.0) | (696.8) | (945.2) | (966.9) | (990.3) | (1028.1) |
| Total costs | 3283.6 | 2987.2 | 4061.0 | 4154.4 | 4254.6 | 4417.7 |
| Notional cost allocations | | | | | | |
| Irrigation customers | 1552.0 | 1411.5 | 1893.0 | 1936.8 | 1983.9 | 2058.6 |
| Urban/Industrial customers | 207.5 | 189.0 | 273.4 | 279.5 | 286.0 | 297.8 |
| SunWater | 1524.1 | 1386.7 | 1894.6 | 1938.1 | 1984.7 | 2061.3 |
| Total costs | 3283.6 | 2987.2 | 4061.0 | 4154.4 | 4254.6 | 4417.7 |

1. For the purposes of this table, DIP costs have been excluded.

Table 7: Historical actual water usage

| Year | Usage (ML) |
|------------------------|-------------------|
| 2002/03 | 792,536 |
| 2003/04 | 715,944 |
| 2004/05 | 788,285 |
| 2005/06 | 608,988 |
| 2006/07 | 632,675 |
| 2007/08 | 495,563 |
| 2008/09 | 425,354 |
| 2009/10 | 607,164 |
| 2010/11 | 184,950 |
| 2011/12 | 435,031 |
| 2012/13 | 514,753 |
| 2013/14 | 716,982 |
| 2014/15 | 801,890 |
| 2015/16 | 680,578 |
| 2016/17 | 581,308 |
| 15-year average | 598,800 |