



# Draft Service and Performance Plan 2021/22

Callide Valley Bulk Water Service Contract

28 January 2021

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# At a glance

## Our performance in 2019/20

 **Operating costs:**  
\$1.75 million (2.0% less than forecast)

Higher preventative maintenance costs were offset by lower than budgeted operations and corrective maintenance costs.


 **Annuity-funded costs:**  
\$1.09 million (20.1% more than forecast)

Key drivers of cost variance:

- higher contractor and labour costs were incurred in relation to the 20-year dam safety review at Kroombit Dam
- additional works to investigate the cause of vibrations at the Callide Dam radial gates and action the recommendations.

 **Total water deliveries:**  
15,900 ML

Water delivered to irrigators: 11,110 ML

 **Service targets: Met**


No exceptions

## Outlook for 2021/22

 **Forecast operating costs:**  
\$2.18 million

Significant areas of expenditure:

- insurance (\$0.51 million)
- operations (\$1.24 million)
- preventative maintenance (\$0.28 million).

 **Forecast annuity-funded costs:**  
\$1.60 million

Key projects planned:

- procurement, installation and commissioning of radial gate pump arrangements at Callide Dam (\$1.24 million)
- comprehensive risk assessment of Kroombit Dam, using previously completed input studies (\$0.16 million)
- scheduled replacement of electrical cabling and conduit services at Callide Dam (\$0.09 million).

# Introduction

This Service and Performance Plan (S&PP) details a range of proposed scheme activities and projects, and presents a breakdown of anticipated costs for review. It also compares Sunwater’s actual costs for 2019/20 with our previous forecasts for this scheme.

The purpose of this year’s S&PP for the Callide Valley Bulk Water Service Contract is to:

- present to customers Sunwater’s projected costs<sup>1</sup> for the upcoming five-year period, i.e. 2021/22 to 2025/26
- consult with our customers on forecast operating and annuity-funded costs for 2021/22 and the forward program of works
- examine Sunwater’s performance in 2019/20 against previous forecasts and service targets.

Our focus during 2021/22 will be on ensuring dam safety compliance is maintained and that refurbishment and corrective work identified through our annual and five yearly comprehensive inspections at Callide and Kroombit Dams are implemented safely, timely and efficiently.

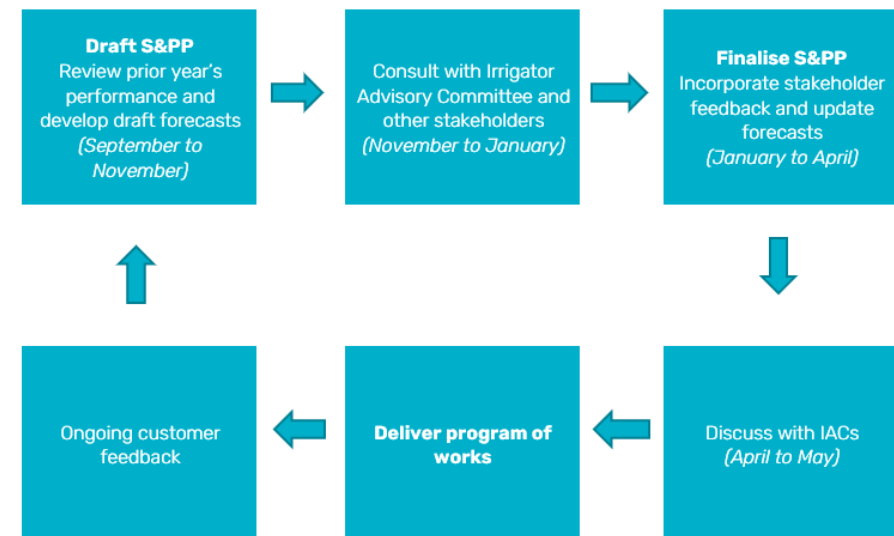
In addition to this S&PP, Sunwater has published an information sheet which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The information sheet is available at:

[www.sunwater.com.au/customer/products-and-services/service-and-performance-plans/](http://www.sunwater.com.au/customer/products-and-services/service-and-performance-plans/)

<sup>1</sup> All financial figures reported in this document are in nominal dollars, i.e. dollars of the day. Figures may not sum due to rounding.

Input from customers is a valuable part of Sunwater’s planning process and ensures that we invest in areas which support the services we provide to customers. Figure 1 outlines how Sunwater and customers work together in relation to S&PPs.

Figure 1: Customer consultation and S&PPs



We welcome and encourage your feedback on this S&PP. To have your say and shape future S&PPs, please contact us via email or post:

Email: [sppfeedback@sunwater.com.au](mailto:sppfeedback@sunwater.com.au)

Post: S&PP Feedback  
PO Box 15536  
City East Qld 4002

# Delivering services to our customers

At Sunwater we are committed to working collaboratively with our customers to deliver value and fit-for-purpose water solutions.

## Our customers

The majority of our 134 customers in this scheme are irrigators of agriculture including dairy, fodder crops and winter and summer cereal cropping. Water is also supplied to township of Biloela, an abattoir and industrial users, including the Callide Power Station.

The water allocations for each customer segment are included in Table 1, together with water deliveries in 2019/20. Historical total water usage is available in **Appendix 1**.

*Table 1: Water allocations and usage data*

Customer segment	Total water allocations (ML)	High-A priority water allocations (ML)	High-B priority water allocations (ML)	Medium priority water allocations (ML)	Risk priority water allocations (ML)	Total water deliveries 2019/20 (ML)
Irrigation	13,463	0	79	12,870	514	11,110
Industrial	3772	3084	0	688	0	3470
Urban	2207	1220	987	0	0	1316
Sunwater	7	7	0	0	0	4
<b>Total</b>	<b>19,449</b>	<b>4311</b>	<b>1066</b>	<b>13,558</b>	<b>514</b>	<b>15,900</b>

## Irrigation charges

The 2021/22 charges and cost per megalitre from the Queensland Competition Authority's (QCA) 2020–2024 irrigation price investigation are shown in Table 2. The Callide Valley Bulk Water Service Contract is not expected to fully recover irrigation's share of costs.

Table 2: Irrigation charges for 2021/22

Tariff group	Product	2021/22 (\$/ML) <sup>1</sup>	QCA cost-reflective (\$/ML) <sup>2</sup>	Subsidy (\$/ML)
Surface Water Callide & Kroombit Creek	Allocation Charge – Part A	24.20	72.11	47.90
	Allocation Water – Part B	9.08	9.08	n/a
Callide Benefited Groundwater Area	Allocation Charge – Part A	24.20	72.11	47.90
	Allocation Water – Part B	9.08	9.08	n/a

- As recommended by the QCA. The Queensland Government has not yet determined the irrigation charges to apply in 2021/22.
- Reflects the cost-reflective price determined by the QCA in its 2020–2024 irrigation price investigation. Costs reflect lower bound cost recovery, i.e. recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.

For more information on Sunwater's fees and charges, refer to: [www.sunwater.com.au/customer/fees-and-charges/](http://www.sunwater.com.au/customer/fees-and-charges/)

## Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for the Callide Valley Bulk Water Service Contract. Table 3 sets out our recent performance against selected service targets for this scheme.

Table 3: Scheme service targets and performance

Service target		Target	Number of exceptions		
			2017/18	2018/19	2019/20
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	8 weeks	0	0	0
	For shutdowns planned to exceed 3 days	2 weeks	0	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0	0
Unplanned shutdowns – duration <sup>1</sup>	Unplanned shutdowns during Peak Demand Period	48 hours	0	1	0
	Unplanned shutdowns outside Peak Demand Period	5 working days			
Maximum number of interruptions	Planned or unplanned interruptions per water year	6	0	0	0

- This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.

In addition, Sunwater has company-wide customer interactions service targets. Our performance in 2019/20 against these service targets is shown in Table 4.

Table 4: Customer interactions service targets and performance

Service target	Target	2019/20
Telephone answering <sup>1</sup>	80.00%	94.87%
Requests actioned within Service Level Agreement (SLA) timeframes <sup>2</sup>	> 95.00%	95.46%

- This target measures the percentage of 13 15 89 calls that are answered within 60 seconds. The 2019/20 result reflects the average monthly performance over the November 2019 to June 2020 period.
- This target measures the percentage of email or workflow requests (such as property transfers and temporary transfers) to the Customer Support email address that are completed within the agreed SLAs. The SLA timeframes range between two and 10 business days, depending on the request. The 2019/20 result covers the October 2019 to June 2020 period.

## Key infrastructure

Table 5 lists the key infrastructure used to deliver bulk water services to our customers in Callide Valley.

Table 5: Key infrastructure

Asset	Description	Total storage capacity (ML)
Callide Dam	Earth and rock fill dam with an ogee-type crest with three pairs of radial gates. The spillway chute is concrete lined and ends with a long dissipator pool. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	136,300
Kroombit Dam	Spillway of roller-compacted concrete covered with facing concrete, which is flanked by earth and rock fill embankments. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	14,600
Callide Weir	Steel sheet piled structure with three concreted rockfill steps.	506
Callide Diversion Channel	A diversion channel (consisting of earth channel and pipeline sections) through which water can be diverted from Callide Dam to Kroombit and Kariboe Creeks.	n/a

## Financial summary—Revenue and expenditure

A high-level summary of the budgeted financial performance of the Callide Valley Bulk Water Service Contract is presented in Table 6.

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 QCA as part of its review of irrigation prices.

Sunwater anticipates a decrease in revenue for the Callide Valley Bulk Water Service Contract in 2021/22.

In 2021/22, Sunwater expects to spend \$489 million across all parts of our business, i.e. regulated and non-regulated. A breakdown of the forecast total cost pool at the direct and non-direct cost level is shown in Figure 2, together with the percentage of these costs allocated to the Callide Valley Bulk Water Service Contract. Detail on the planned spend for this scheme is outlined on subsequent pages of this S&PP.

Figure 2: Total Sunwater cost pools and allocation to scheme—2021/22 forecast (\$M)

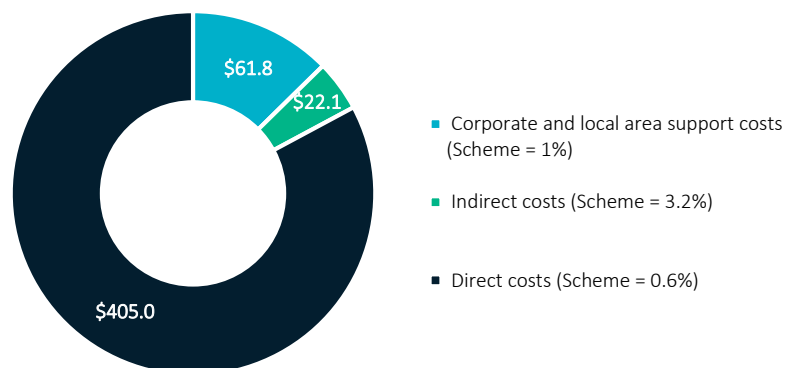


Table 6: Service contract financial summary

Callide Valley Bulk Water Service Contract	2017/18 Actual \$'000	2018/19 Actual \$'000	2019/20 Actual \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000
Revenue					
Irrigation	324.9	350.8	347.0	311.0	389.4
Community Service Obligation	-	-	-	-	-
Industrial <sup>1</sup>	1005.8	898.6	911.5	1345.4	1224.9
Urban <sup>1</sup>	355.2	386.4	390.2	401.0	411.0
Revenue transfers	-	-	-	-	-
Drainage	-	-	-	-	-
Other	326.0	52.8	(9.2)	2.0	2.0
<b>Revenue total</b>	<b>2011.9</b>	<b>1688.7</b>	<b>1639.7</b>	<b>2059.3</b>	<b>2027.3</b>
Less – Operating expenditure	1250.3	1613.9	1748.6	2115.0	2176.8
Less					
Annuity-funded	838.6	651.9	1086.1	2689.5	1601.8
Non-annuity funded	118.4	1055.1	0.4	-	-
<b>Surplus (deficit)</b>	<b>(195.5)</b>	<b>(1632.3)</b>	<b>(1195.5)</b>	<b>(2745.2)</b>	<b>(1751.3)</b>

1. Forecast revenues for industrial and urban customers are based on current contractual arrangements.

## Cost of delivering services—Operating expenditure

Operating expenditure includes funds for: operations activities, i.e. operations, electricity and insurance; preventative maintenance; and corrective maintenance.

Table 7 sets out actual and forecast operating expenditure for the Callide Valley Bulk Water Service Contract. For a more detailed breakdown by cost category, refer to **Appendix 2**.

### Our performance in 2019/20

In 2019/20, operating costs were broadly in line with our previous forecast.<sup>2</sup> However, there were variations at the cost category level. Operations costs were \$289k less than forecast, while preventative maintenance costs were \$265k greater. Direct labour and contractor costs contributed \$107k of this increase. Corporate support costs (\$60k) and indirect costs (\$50k) were the other significant items over budget. Actual corrective maintenance costs were marginally lower than budget.

Table 7: Operating expenditure<sup>1</sup>

Callide Valley Bulk Water Service Contract	2017/18	2018/19	2019/20		2020/21		2021/22		2022/23	2023/24	2024/25	2025/26	
	Sunwater Actual \$'000	Sunwater Actual \$'000	Sunwater Forecast \$'000	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'000 <sup>2</sup>	Sunwater Forecast \$'000	QCA Target \$'000 <sup>2</sup>	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operations	870.3	1067.2	1395.5	1106.6	(288.9)	1703.3	1374.7	1752.2	1403.6	1845.8	1859.6	1935.1	1923.3
Electricity	-	15.1	4.5	5.9	1.4	4.5	4.8	4.6	4.8	4.9	4.9	5.5	5.7
Insurance	299.4	322.9	359.3	369.0	9.6	498.8	406.7	511.2	414.8	524.0	537.1	550.6	564.3
Operations	570.9	729.3	1031.7	731.7	(299.9)	1200.0	963.2	1236.3	983.9	1316.9	1317.6	1379.0	1353.4
Preventative maintenance	305.4	434.1	227.4	492.5	265.1	267.8	333.8	276.4	341.1	299.0	296.0	313.7	314.9
Corrective maintenance	74.6	112.6	161.2	149.5	(11.7)	143.9	79.1	148.2	80.8	158.0	157.9	165.8	167.4
<b>Operating costs total</b>	<b>1250.3</b>	<b>1613.9</b>	<b>1784.2</b>	<b>1748.6</b>	<b>(35.6)</b>	<b>2115.0</b>	<b>1787.6</b>	<b>2176.8</b>	<b>1825.4</b>	<b>2302.9</b>	<b>2313.4</b>	<b>2414.5</b>	<b>2405.6</b>
Recreational facility costs <sup>3</sup>						-		-		-	-	-	-
<b>Operating costs total (incl. recreational facility costs)</b>	<b>1250.3</b>	<b>1613.9</b>	<b>1784.2</b>	<b>1748.6</b>	<b>(35.6)</b>	<b>2115.0</b>		<b>2176.8</b>		<b>2302.9</b>	<b>2313.4</b>	<b>2414.5</b>	<b>2405.6</b>

1. Sunwater's 2021/22 to 2025/26 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. Reflects the QCA's 2020–2024 irrigation price investigation final recommendations. Excludes recreational facility costs.
3. From 1 July 2020, irrigation customers no longer contribute towards the cost of operating and maintaining recreational facilities. Forecast costs have been separately identified for transparency.

<sup>2</sup> See the 2019/20 Network Service Plan at [www.sunwater.com.au/schemes/Callide-Valley/](http://www.sunwater.com.au/schemes/Callide-Valley/)



## Outlook for 2021/22

### Operations

Callide Valley Bulk Water Service Contract's total operations budget in 2021/22 is 24.8 per cent above the QCA's recommended cost target. The total variance from the QCA cost target is \$350k. The biggest variance is for indirect costs (\$122k), then insurance costs (\$100k, see below). Direct labour costs (\$54k) and local area support costs (\$50k) make up most of the remaining variance.

Dam levels in 2021/22 may influence some operating costs. If Kroombit Dam remains dry and if Callide Dam remains below the release for recharge level, some operating costs may reduce due to less requirement for managing creek releases for recharge. It should be noted, however, that dam surveillance activities will need to continue. Should inflows occur during the third or fourth quarter in 2020/21 or during 2021/22, then these operations costs will continue as release for recharge resumes.

The operations and maintenance tasks associated with the Callide Diversion Channel are significant for this scheme. The opportunity to run this asset may influence scheme costs in 2021/22.

### Insurance

Insurance is one of Sunwater's largest expenditure items. 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.

In 2020/21, Sunwater experienced a significant price increase in insurance premiums. Our insurance broker has indicated this is the beginning of an upward trend in premiums due to, among other factors, the number and size of natural disasters that have occurred in Australia over the past 12 months. Insurance premiums in 2021/22 are therefore expected to be higher than the QCA's recommended allowance and historical costs.

### Preventative maintenance

The forecast preventative maintenance costs for the Callide Valley Bulk Water Service Contract are 19.0 per cent below the QCA's recommended cost target. Sunwater will continue to use best endeavours to complete all necessary maintenance activities as efficiently as possible.

### Corrective maintenance

In 2021/22, Sunwater anticipates spending \$148.2k on corrective maintenance in the Callide Valley Bulk Water Service Contract. This is 83.5 per cent above the QCA's recommended cost target.

It is inherently difficult to forecast corrective maintenance costs. Sunwater will aim to keep actual corrective maintenance costs to a minimum, while ensuring all assets can perform satisfactorily. Labour and contractor costs make up the largest proportion of the corrective maintenance budget. These costs will only be realised if required.

## Cost of delivering services—Annuity and non-annuity funded expenditure

Annuity expenditure include funds for preventative and corrective maintenance, as well as large, one-off operations activities. The preventative maintenance activities monitor the asset condition and inform the corrective maintenance program when an asset needs to be refurbished or replaced. Non-annuity funded expenditure largely relates to Sunwater’s Dam Improvement Program and recreational facility costs.

Table 8 outlines our annuity and non-annuity funded expenditure. A comparison of forecast and actual annuity-funded projects for 2019/20 is provided in **Appendix 3**, with details of the major annuity-funded projects planned for the 2020/21 to 2025/26 period set out in **Appendix 4**.

Table 8: Annuity and non-annuity funded expenditure<sup>1,2</sup>

Callide Valley Bulk Water Service Contract	2017/18	2018/19	2019/20		Variance \$'000	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26		
	Sunwater Actual \$'000 <sup>3</sup>	Sunwater Actual \$'000 <sup>3</sup>	Sunwater Forecast \$'000	Sunwater Actual \$'000		Sunwater Forecast \$'000	QCA Target \$'000 <sup>4</sup>	Sunwater Forecast \$'000	QCA Target \$'000 <sup>4</sup>	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	
<b>Annuity-funded</b>													
Operations	18.6	-	-	-	-	-	-	-	-	-	-		
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-		
Planned corrective maintenance	803.6	651.9	904.6	1086.1	181.5	2689.5	861.8	1601.8	229.3	424.5	101.1	1133.8	952.9
Unplanned corrective maintenance	16.5	-	-	-	-	-	-	-	-	-	-	-	-
<b>Annuity-funded total</b>	<b>838.6</b>	<b>651.9</b>	<b>904.6</b>	<b>1086.1</b>	<b>181.5</b>	<b>2689.5</b>	<b>861.8</b>	<b>1601.8</b>	<b>229.3</b>	<b>424.5</b>	<b>101.1</b>	<b>1133.8</b>	<b>952.9</b>
<b>Non-annuity funded</b>													
Dam Improvement Program	-	-	-	-	-	-	-	-	-	499.4	1503.3	2513.5	
Recreational facility projects						-	-	-	-	-	-	-	
Metered offtakes and dividend reinvestment	118.4	1055.1	90.7	0.4	(90.3)	-	-	-	-	-	0.0	-	
<b>Non-annuity total</b>	<b>118.4</b>	<b>1055.1</b>	<b>90.7</b>	<b>0.4</b>	<b>(90.3)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>499.4</b>	<b>1503.3</b>	<b>2513.5</b>	

1. Sunwater’s 2021/22 to 2025/26 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. Forecast annuity-funded costs from 2020/21 exclude recreational facility projects.
3. The annuity-funded spend for 2017/18 and 2018/19 reflects the QCA’s 2020–2024 irrigation price investigation final recommendations, which included adjustments to Sunwater’s actual costs.
4. Reflects the QCA’s 2020–2024 irrigation price investigation final recommendations.

## Asset management and planning improvements

In its final report for the 2020–2024 irrigation price investigation, the QCA identified several potential improvements to Sunwater’s asset management and planning framework. It suggested Sunwater should:

- improve our predictive maintenance and asset condition reporting arrangements to better inform the timing of asset replacement
- review our cost estimation approach and ensure that asset values are based on modern equivalent replacement values where appropriate
- develop transparent guidelines for options analyses.<sup>3</sup>

Sunwater acknowledges there is room for improvement in our asset management system and is working on several initiatives to address specific potential improvements and the broader asset management and planning processes as outlined below. We will report on our progress on the implementation of these initiatives in the final S&PP for 2021/22.

## Asset management performance growth

This initiative provides the opportunity to improve predictive maintenance capability and focuses on monitoring asset performance data of critical assets. The asset data will provide a greater insight into asset performance, condition, and refurbishment and replacement planning.

## Asset management planning

A change to Sunwater’s asset planning cycle has improved the near-term cost estimation of annuity-funded work. The change targets 18 months of fully cost-estimated work and will help improve future asset replacement values.

## Asset management improvement

Sunwater is implementing improvements to our asset management system with a fit for purpose alignment to the ISO55001 asset management standard. Key to the alignment is the simplification of how we identify and deliver maintenance work. Low value, low complexity work follows a standard work management methodology and is managed at a service contract level. High value, high complexity work is managed at an individual level and follows Sunwater’s Portfolio, Program and Project Management Framework (P3MF). P3MF defines the management and governance of projects including when an options analysis is required.

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<sup>3</sup> See pages 58 to 60, [www.qca.org.au/wp-content/uploads/2020/02/irrigation-price-review-part-b-sunwater-final-report.pdf](http://www.qca.org.au/wp-content/uploads/2020/02/irrigation-price-review-part-b-sunwater-final-report.pdf)

# 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/replacement of the assets over a pre-determined period of time. The forecast annuity balances, and the impacts of budgeted spend, are shown in Table 9 below.

The QCA and Sunwater closing balances differ due to differences in the expenditure profile allowed by the QCA in its 2020–2024 final recommendations and actual expenditure incurred by Sunwater in 2019/20 and what we expect to spend thereafter.

Table 9: Annuity balance

Callide Valley Bulk Water Service Contract	2017/18 Actual \$'000	2018/19 Actual \$'000	2019/20 Actual \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000	2024/25 Forecast \$'000	2025/26 Forecast \$'000
Opening balance <sup>1</sup>	(5826.2)	(6711.2)	(7361.6)	(8589.4)	(10,308.6)	(11,009.5)	(10,533.4)	(9112.3)	(7012.4)
Spend <sup>2</sup>	(838.6)	(651.9)	(1086.1)	(2689.5)	(1601.8)	(424.5)	(101.1)	(1133.8)	(952.9)
Insurance proceeds receipts (if applicable)									
Prior year	-	-	-	-	-	-	-	-	-
Current year	-	104.5	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	390.0	399.7	409.7	1345.9	1351.6	1382.0	1982.8	3632.1	3649.5
Interest/financing costs	(436.4)	(502.7)	(551.4)	(375.6)	(450.7)	(481.4)	(460.5)	(398.4)	(306.6)
<b>Sunwater – Closing balance</b>	<b>(6711.2)</b>	<b>(7361.6)</b>	<b>(8589.4)</b>	<b>(10,308.6)</b>	<b>(11,009.5)</b>	<b>(10,533.4)</b>	<b>(9112.3)</b>	<b>(7012.4)</b>	<b>(4622.3)</b>
<b>QCA – Closing balance</b>	<b>(6711.2)</b>	<b>(7361.6)</b>	<b>(8254.4)</b>	<b>(8131.2)</b>	<b>(7364.5)</b>	<b>(6416.7)</b>	<b>(5320.3)</b>		
Difference	-	-	(335.0)	(2177.4)	(3645.0)	(4116.7)	(3792.0)		

1. The opening balances for 2017/18, 2018/19 and 2019/20 reflect the QCA's 2020–2024 irrigation price investigation final recommendations.
2. The spend for 2017/18 and 2018/19 reflects the QCA's 2020–2024 irrigation price investigation final recommendations, which included adjustments to Sunwater's actual costs. The 2019/20 spend reflects Sunwater's actual costs. Thereafter, the spend is based on Sunwater's forecasts.
3. The annuity contribution is included in the prices paid by customers. It was set by the QCA from 2012/13 to 2016/17 and was rolled forward with the Consumer Price Index (CPI) for 2017/18, 2018/19 and 2019/20. From 2020/21 to 2023/24, the annuity contribution is based on the QCA's 2020–2024 irrigation price investigation final recommendations. Thereafter, it is based on Sunwater's projections.

## Appendix 1—Historical water usage

The below table contains the scheme's recent water use, together with the 18-year average for the 2002/03 to 2019/20 period.

Year	Usage (ML)
2010/11	6042
2011/12	11,117
2012/13	11,801
2013/14	13,808
2014/15	10,812
2015/16	14,442
2016/17	14,953
2017/18	14,907
2018/19	17,325
2019/20	15,900
<b>18-year historical average</b>	<b>12,028</b>

## Appendix 2—Operating and annuity-funded costs by expense type

Callide Valley Bulk Water Service Contract	2017/18 Sunwater Actual \$'000	2018/19 Sunwater Actual \$'000	2019/20 Sunwater Forecast \$'000	2019/20 Sunwater Actual \$'000	Variance \$'000	2020/21 Sunwater Forecast \$'000	2020/21 QCA Target \$'000	2021/22 Sunwater Forecast \$'000	2021/22 QCA Target \$'000	2022/23 Sunwater Forecast \$'000	2023/24 Sunwater Forecast \$'000	2024/25 Sunwater Forecast \$'000	2025/26 Sunwater Forecast \$'000
<b>Operating costs</b>													
Operations	870.3	1067.2	1395.5	1106.6	(288.9)	1703.3	1374.7	1752.2	1403.6	1845.8	1859.6	1935.1	1923.3
Labour	126.2	135.4	201.0	196.4	(4.6)	222.3	170.6	228.9	174.5	235.8	241.7	247.7	253.9
Contractors	8.6	14.8	20.0	13.8	(6.2)	20.0	48.2	20.5	49.2	21.0	21.5	22.1	22.6
Materials	1.7	0.4	2.0	5.4	3.4	2.0	3.0	2.1	3.1	2.1	2.2	2.2	2.3
Electricity	-	15.1	4.5	5.9	1.4	4.5	4.8	4.6	4.8	4.9	4.9	5.5	5.7
Insurance	299.4	322.9	359.3	369.0	9.6	498.8	406.7	511.2	414.8	524.0	537.1	550.6	564.3
Other	89.7	175.4	142.7	120.3	(22.4)	147.2	127.3	148.4	129.8	152.5	155.4	156.8	161.1
Local area support costs	98.3	118.8	103.2	108.6	5.4	130.2	82.4	134.1	84.2	138.1	141.5	145.1	148.7
Corporate support costs	69.0	127.5	150.1	151.6	1.5	166.7	131.9	171.7	134.7	176.8	181.3	185.8	190.4
Indirect costs	177.5	156.8	412.6	135.7	(276.9)	511.7	399.8	530.7	408.4	590.5	574.0	619.3	574.3
Preventative maintenance	305.4	434.1	227.4	492.5	265.1	267.8	333.8	276.4	341.1	299.0	296.0	313.7	314.9
Labour	91.2	116.8	63.9	141.0	77.2	74.4	102.3	76.6	104.6	78.9	80.9	82.9	85.0
Contractors	31.0	56.7	25.0	54.9	29.9	25.0	12.2	25.6	12.5	26.3	26.9	27.6	28.3
Materials	1.0	3.8	2.0	6.2	4.2	2.0	5.6	2.1	5.7	2.1	2.2	2.2	2.3
Other	4.7	5.2	7.0	9.5	2.5	9.0	12.4	9.2	12.6	9.5	9.7	9.9	10.2
Local area support costs	71.1	100.0	37.5	78.8	41.3	44.2	49.4	45.5	50.5	46.9	48.1	49.3	50.5
Corporate support costs	37.4	95.4	47.7	108.1	60.4	55.8	79.0	57.5	80.7	59.2	60.7	62.2	63.8
Indirect costs	69.1	56.1	44.4	94.0	49.6	57.4	72.9	59.8	74.5	76.2	67.5	79.5	74.9
Corrective maintenance	74.6	112.6	161.2	149.5	(11.7)	143.9	79.1	148.2	80.8	158.0	157.9	165.8	167.4
Labour	8.5	19.5	32.5	22.8	(9.7)	28.6	11.2	29.5	11.5	30.4	31.1	31.9	32.7
Contractors	41.0	40.2	50.0	42.9	(7.1)	40.0	28.2	41.0	28.8	42.0	43.1	44.2	45.3
Materials	5.2	4.8	10.0	28.8	18.8	10.0	7.3	10.3	7.5	10.5	10.8	11.0	11.3
Other	1.1	2.2	5.0	9.4	4.4	5.0	10.2	5.1	10.4	5.3	5.4	5.5	5.7
Local area support costs	6.6	18.2	16.8	13.0	(3.9)	16.7	5.4	17.2	5.5	17.7	18.1	18.6	19.1
Corporate support costs	5.7	16.1	24.3	18.0	(6.3)	21.5	8.7	22.1	8.9	22.8	23.4	23.9	24.5
Indirect costs	6.4	11.5	22.6	14.6	(8.0)	22.1	8.0	23.0	8.2	29.3	26.0	30.6	28.8
<b>Operating costs total</b>	<b>1250.3</b>	<b>1613.9</b>	<b>1784.2</b>	<b>1748.6</b>	<b>(35.6)</b>	<b>2115.0</b>	<b>1787.6</b>	<b>2176.8</b>	<b>1825.4</b>	<b>2302.9</b>	<b>2313.4</b>	<b>2414.5</b>	<b>2405.6</b>
<b>Annuity-funded costs</b>													
Labour			132.1	156.1	24.0	187.8	60.2	109.5	15.7	56.6	10.4	180.1	136.3
Contractors			366.8	602.8	236.0	1440.3	461.5	625.0	89.5	124.8	25.7	200.2	173.7
Materials			152.7	25.3	(127.4)	671.4	215.1	637.1	91.2	114.8	42.6	307.3	293.1
Other			-	6.9	6.9	2.7	0.9	-	-	-	-	42.9	49.9
Local area support costs			62.6	72.6	10.0	101.7	32.6	62.6	9.0	31.1	5.8	95.6	77.7
Corporate support costs			98.6	125.8	27.2	140.8	45.1	82.2	11.8	42.5	7.8	135.0	102.2
Indirect costs			91.8	96.7	4.9	144.9	46.4	85.5	12.2	54.7	8.7	172.7	120.0
<b>Annuity-funded total<sup>1</sup></b>	<b>838.6</b>	<b>651.9</b>	<b>904.6</b>	<b>1086.1</b>	<b>181.5</b>	<b>2689.5</b>	<b>861.8</b>	<b>1601.8</b>	<b>229.3</b>	<b>424.5</b>	<b>101.1</b>	<b>1133.8</b>	<b>952.9</b>
<b>Total costs<sup>2</sup></b>	<b>2088.9</b>	<b>2265.9</b>	<b>2688.9</b>	<b>2834.8</b>	<b>145.9</b>	<b>4804.6</b>	<b>2649.4</b>	<b>3778.6</b>	<b>2054.8</b>	<b>2727.3</b>	<b>2414.6</b>	<b>3548.3</b>	<b>3358.4</b>

1. The 2017/18 and 2018/19 costs reflect the QCA's 2020–24 irrigation price investigation final recommendations, which included adjustments to Sunwater's actual costs. Sunwater has provided cost information at the lowest level of granularity available.

2. Excludes recreational facility costs from 2020/21.

## Appendix 3—Comparison of forecast and actual annuity-funded projects for 2019/20

The below table sets out the major annuity-funded projects planned for the Callide Valley Bulk Water Service Contract in 2019/20 and the actual projects undertaken.

Project	Forecast \$'000	Actual \$'000	Commentary
Kroombit Dam – 20-year dam safety review (20CVA14)	259	404	Contractors and internal labour for peer review were more expensive than anticipated. A Kroombit seismic study scheduled for 2020/21 was also brought forward.
Callide Dam – 5-year comprehensive inspection (20CVA08)	139	90	Mobilisation costs were reduced by combining the inspection with other works within the area during one visit.
Callide Dam – Comprehensive Risk Assessment (CRA) inputs and seismic survey (20CVA16 and 20CVA17)	128	48	Sunwater accepted the recommendation from the Phase 1 seismic assessment for Callide Dam that the contribution to overall risk due to seismic hazard is very low. Therefore, the Phase 2 study was not needed (20CVA16, \$51k). The remaining input studies were delivered under budget, due to lower labour costs than originally estimated (20CVA17, \$29k less than forecast).
Callide Diversion Channel – Fence refurbishment (18CVA03)	101	22	Issues with landholders prevented the continuation of this project.
Groundwater meter replacements (20CVA11)	62	40	Meters were in a better condition than expected; therefore, fewer meters needed to be installed.
Callide Diversion Channel – Flow meter (20CVA07)	49	40	The cost of the meter was less than forecast, and internal labour was used to install the meter.
Kroombit Dam – 5-year comprehensive inspection (20CVA15)	46	33	Mobilisation costs were reduced due to efficiency gains.
Other works	121	64	Cost variances were due to: <ul style="list-style-type: none"> <li>lower labour costs to inspect electrical services at Callide Dam (20CVA06, \$5k less than forecast)</li> <li>lower contractor costs being incurred for a bathymetric survey of the spillway plunge pool at Kroombit Dam (20CVA13, \$10k less than forecast)</li> <li>a reduction in time required to complete a risk assessment of four manholes at Callide Dam (18CVA01, \$2k less than forecast).</li> </ul> The scheme's contingency of \$42k was re-allocated to non-scheduled works.
Non-scheduled works	-	345	The following non-scheduled works were undertaken in 2019/20: <ul style="list-style-type: none"> <li>an investigation into the cause of vibrations on the Callide Dam radial gates during operation (20CVA18, \$256k) and implementation of resulting actions (20CVA20, \$44k)</li> </ul>

Project	Forecast \$'000	Actual \$'000	Commentary
			<ul style="list-style-type: none"> <li>project scoping by the Sunwater technical services team for the 2020/21 annuity-funded program of works (20CVA19, \$45k).</li> </ul>
<b>2019/20 Total</b>	<b>905</b>	<b>1086</b>	



## Appendix 4—Annuity-funded projects for 2020/21 to 2025/26

The below table sets out Sunwater’s currently planned annuity-funded projects for the 2020/21 to 2025/26 period for this scheme. While the immediate program is well defined, estimates become more uncertain further into the planning timeline. Forecasts are likely to change in future S&PPs, reflecting changes in project delivery timing; asset condition and risk updates; outcomes from scheduled asset inspections; and customer feedback.

Year	Project title	Project scope	Forecast \$'000
2020/21	Callide Dam – Radial gates (Stage 1)	Investigation and enhancement of the radial gate pump arrangements to ensure full manual control over gate operations when not being automatically controlled by water levels.	811
	Kroombit Dam – Roller compacted concrete investigation	An investigation of the roller compacted concrete to determine material properties and confirm strength and stability data for dam safety analysis.	802
	Callide Dam – Spillway investigation	Sunwater is assessing all concrete spillways for sub-surface damage. This project involves the use of a ground penetrating radar to survey the spillway.	244
	Callide Dam – Switchboard replacements	Scheduled replacement of the main electrical services building and diesel generator switchboards, including options analysis and design. Works are required to ensure continued reliable power distribution to essential equipment.	170
	Kroombit Dam – Comprehensive risk assessment (CRA) inputs	Investigations and analysis to provide input into the planned CRA. <i>Note: The forecast amount includes \$58k for a seismic investigation. This investigation was completed in 2019/20 and appears in the 2020/21 program of works due to a data extraction timing issue.</i>	211
	Kroombit Dam – 20-year dam safety review	Completion of the 20-year dam safety review, analysis, reporting and recommendations.	100
	Callide Dam – 20-year dam safety review	Completion of the 20-year dam safety review, analysis, reporting and recommendations.	83
	Asset revaluation	Revalue the assets for insurance purposes; update asset replacement costs and Bill of Materials; and identify gaps in asset hierarchy data.	65
	Meter replacements	Upgrade customer groundwater metering (12 sites) to Australian Standard (AS) 4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	63
	Callide Dam – Spillway inspection	Undertake spillway sub-surface drainage CCTV inspection to confirm drainage functionality. This information will be used as an input to the 20-year dam safety review.	32
	Other works	The balance of the 2020/21 program consists of a Callide Creek weir inspection; a contingency amount for unplanned capital replacements; and arc flash inspections and reviews.	108
		<b>2020/21 Total</b>	
2021/22	Callide Dam – Radial gates (Stage 2)	Procurement, installation and commissioning of the radial gate pump arrangements to ensure full manual control over gate operations when not being automatically controlled by water levels.	1244

Year	Project title	Project scope	Forecast \$'000
	Kroombit Dam – CRA	CRA of Kroombit Dam utilising inputs, investigations and analysis undertaken in 2019/20 and 2020/21, in accordance with the dam safety conditions.	158
	Callide Dam – Electrical services	The scheduled replacement of electrical cabling and conduit services at Callide Dam to ensure continued reliable power transmission throughout the facility. Works will be subject to further investigation and scope definition.	85
	Meter replacements	Upgrade customer groundwater metering (12 sites) to AS4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	65
	Callide Dam – Switchboard replacements	Scheduled replacement of smaller building services, inlet tower and valve house distribution boards to ensure continued reliable power distribution.	45
	Other works	The balance of the 2021/22 program consists of a third-party crane inspection at Kroombit Dam.	5
	<b>2021/22 Total</b>		<b>1602</b>
2022/23	Callide Dam – Switchboard replacements	Scheduled replacement of the main electrical services building and diesel generator switchboards, including procurement and installation phases. Works are required to ensure continued reliable power distribution to essential equipment.	346
	Meter replacements	Upgrade customer groundwater metering (12 sites) to AS4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	68
	Other works	Callide Dam inlet tower hoist third-party inspections and certification.	10
	<b>2022/23 Total</b>		<b>424</b>
2023/24	Meter replacements	Upgrade customer groundwater metering (12 sites) to AS4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	68
	Meter replacements – Banana Shire Council	Upgrade Banana Shire Council customer meter to AS4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	17
	Callide Dam – Access bridge	Undertake Level 2 assessment of spillway access bridge to ensure structural integrity and compliance.	16
	Other works	There are no other annuity-funded projects planned for 2023/24.	-
	<b>2023/24 Total</b>		<b>101</b>
2024/25	Callide Dam – Outlet works	Scheduled refurbishment of outlet works valves (guard and regulating) and miscellaneous pipe works. The timing, scope and budget for the works will be subject to condition assessment as part of the five-yearly comprehensive inspection.	440
	Callide Dam – Comprehensive inspection	Sunwater conducts comprehensive inspections on our dams every five years. This allows us to maintain current knowledge of the asset condition and risks, so projects can be brought in and deferred as needed to maintain the asset in serviceable condition. This is a requirement of the dam safety condition schedule for Callide Dam.	130
	Callide Dam – Valve refurbishments	Scheduled refurbishment of two 900DIA diversion channel control valves to ensure continued reliable regulation and control of channel releases.	115

Year	Project title	Project scope	Forecast \$'000
	Callide Dam – Spillway gates	Radial gate trunnion bearing servicing and general handrail and walkway platform refurbishments to ensure continued safe operation of the gates and safe maintenance access.	100
	Meter replacements	Upgrade customer groundwater metering (12 sites) to AS4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	71
	Callide Dam – Control system options analysis	Options analysis to determine the most cost effective and functional replacement of the control system.	61
	Kroombit Dam – Comprehensive inspection	Sunwater conducts comprehensive inspections on our dams every five years. This allows us to maintain current knowledge of the asset condition and risks, so projects can be brought in and deferred as needed to maintain the asset in serviceable condition. This is a requirement of the dam safety condition schedule for Kroombit Dam.	56
	Callide Dam – Upgrade signs	Allocation to upgrade signage with current Sunwater standard arrangements to ensure safe operational and public access to the facility.	51
	Callide diversion channel – Protection works	Scheduled refurbishment of erosion control structures (rock drops) within the channel to ensure continued erosion protection.	24
	Other works	The balance of the 2024/25 program consists of minor facility protection works; handrails and platforms; generator battery replacements; and minor valve and pump refurbishments.	86
	<b>2024/25 Total</b>		<b>1134</b>
2025/26	Callide Dam – Trash screen replacements	Scheduled replacement of intake trash screens, to be reviewed pending condition assessment and least cost whole-of-life strategy.	238
	Callide Dam – Fencing refurbishments	Scheduled refurbishment of barrier fencing within the site facilities. Works scope, timing and budget will be subject to condition assessment and review of whole-of-life costs.	273
	Asset revaluation	Revalue the assets for insurance purposes; update asset replacement costs and Bill of Materials; and identify gaps in asset hierarchy data.	75
	Meter replacements	Upgrade customer groundwater metering (12 sites) to AS4747 standards to ensure accurate and robust water accounting and improve system delivery efficiency.	72
	Kroombit Dam – Instrumentation replacements	Scheduled replacement of Kroombit Dam gauge boards, rainfall recorder and tailwater recorder to ensure continued accurate and reliable data capture.	74
	Callide Dam – Instrumentation replacement	Scheduled replacement of the dam storage level recorder to ensure continued reliable level information.	68
	Callide Dam – Outlet works	Scheduled replacement of the outlet works sump pumps (1 and 2) and level controller to ensure reliable dewatering of the outlet works conduit tunnel and valve house.	45
	Callide Dam – Generator building refurbishment	Scheduled refurbishment of the diesel generator building to ensure continued protection and security of the plant and equipment.	27
	Other works	The balance of the 2025/26 program consists of Kroombit Dam storage rack refurbishment; Callide Creek Weir five-yearly inspection; and minor valve and control equipment replacements.	81
	<b>2025/26 Total</b>		<b>953</b>

## Contact us

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

Email: [sppfeedback@sunwater.com.au](mailto:sppfeedback@sunwater.com.au)

Post: S&PP Feedback  
PO Box 15536  
City East Qld 4002

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