



Final Service and Performance Plan

2021/22

Callide Valley Bulk Water Service Contract

13 August 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:**
\$2.42 million

Significant areas of expenditure:

- insurance (\$0.65 million)
- operations (\$1.27 million)
- preventative maintenance (\$0.30 million).

 **Forecast annuity-funded costs:**
\$12.34 million

Key projects planned:

- comprehensive risk assessment of Kroombit Dam, using previously completed input studies (\$0.16 million)
- 20-year dam safety review of Kroombit Dam (\$0.30 million)
- investigate, remediate and restore Callide Dam’s gates to address intermittent occurrences of vibration during their operation (\$11.29 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 costs¹ 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. Sunwater will also be undertaking a project to investigate, remediate and restore Callide Dam’s gates to address intermittent occurrences of vibration during their operation. This project will ensure ongoing dam safety and long-term water security.

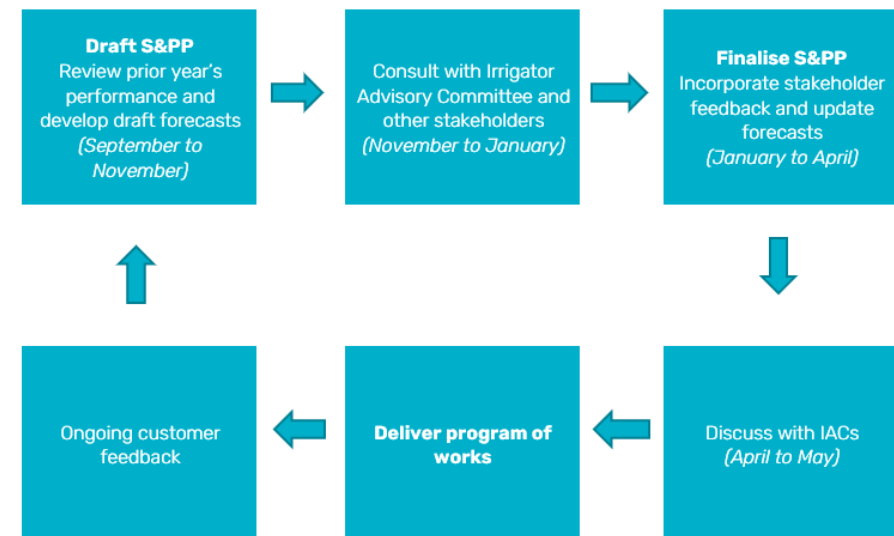
In addition to this S&PP, Sunwater has published an information sheet which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The information sheet is available at:

www.sunwater.com.au/customer/products-and-services/service-and-performance-plans/

¹ 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

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
Total	19,449	4311	1066	13,558	514	15,900

Irrigation charges

The 2021/22 charges and cost per megalitre are shown in Table 2.

Table 2: Irrigation charges for 2021/22

Tariff group	Product	2021/22 (\$/ML) ¹	QCA cost-reflective (\$/ML) ²
Surface Water Callide & Kroombit Creek	Allocation Charge – Part A	18.10	72.11
	Allocation Water – Part B	7.55	9.08
Callide Benefited Groundwater Area	Allocation Charge – Part A	18.10	72.11
	Allocation Water – Part B	7.55	9.08

- Includes the Queensland Government's 15 per cent discount for irrigation customers. Refer to www.rdmw.qld.gov.au for more information.
- Is the cost-reflective price determined by the Queensland Competition Authority (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/

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 ¹	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 ¹	80.00%	94.87%
Requests actioned within Service Level Agreement (SLA) timeframes ²	> 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 \$473 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)

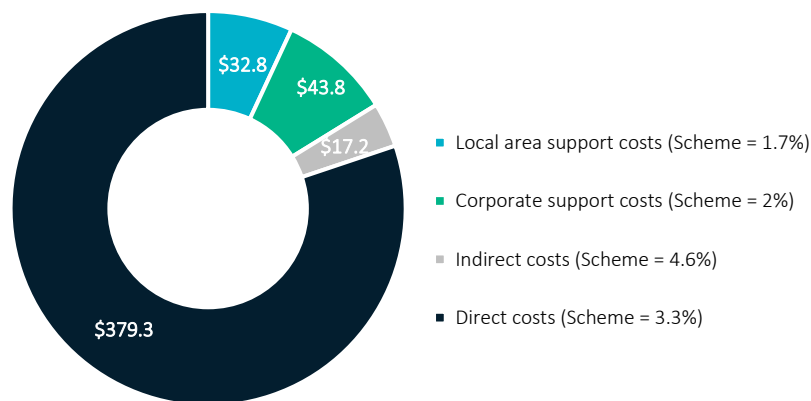


Table 6: Service contract financial summary

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 ¹	1005.8	898.6	911.5	1345.4	985.1
Urban ¹	355.2	386.4	390.2	401.0	399.0
Revenue transfers	-	-	-	-	-
Drainage	-	-	-	-	-
Other	326.0	52.8	(9.2)	2.0	-
Revenue total	2011.9	1688.7	1639.7	2059.3	1773.5
Less – Operating expenditure	1250.3	1613.9	1748.6	2115.0	2420.4
Less					
Annuity-funded	838.6	651.9	1086.1	2689.5	12,342.1
Non-annuity funded	118.4	1055.1	0.4	-	-
Surplus (deficit)	(195.5)	(1632.3)	(1195.5)	(2745.2)	(12,989.0)

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.² 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 expenditure¹

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 ²	Sunwater Forecast \$'000	QCA Target \$'000 ²	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	1933.6	1403.6	1912.0	1962.8	2008.4	2054.5
Electricity	-	15.1	4.5	5.9	1.4	4.5	4.8	4.5	4.8	4.6	4.7	4.8	4.9
Insurance	299.4	322.9	359.3	369.0	9.6	498.8	406.7	654.6	414.8	667.7	681.1	694.7	708.6
Operations	570.9	729.3	1031.7	731.7	(299.9)	1200.0	963.2	1274.5	983.9	1239.7	1277.0	1308.9	1341.0
Preventative maintenance	305.4	434.1	227.4	492.5	265.1	267.8	333.8	296.3	341.1	296.2	305.4	313.5	320.7
Corrective maintenance	74.6	112.6	161.2	149.5	(11.7)	143.9	79.1	190.5	80.8	191.4	196.8	201.7	206.2
Operating costs total	1250.3	1613.9	1784.2	1748.6	(35.6)	2115.0	1787.6	2420.4	1825.4	2399.6	2465.1	2523.5	2581.3
Recreational facility costs ³						-		-		-	-	-	-
Operating costs total (incl. recreational facility costs)	1250.3	1613.9	1784.2	1748.6	(35.6)	2115.0		2420.4		2399.6	2465.1	2523.5	2581.3

1. Sunwater's 2022/23 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.

² See the 2019/20 Network Service Plan at 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 37.8 per cent above the QCA's recommended cost target. The total variance from the QCA cost target is \$530.1k. The key cost categories driving this variance are insurance costs (\$239.8k above), corporate support costs (\$134.3k above) and direct labour (\$108.6k above).

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 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 13.1 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 \$190.5k on corrective maintenance in the Callide Valley Bulk Water Service Contract. This is 135.8 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**.

Sunwater will investigate, remediate and restore the spillway gates at Callide Dam to address intermittent occurrences of vibration during their operation and ensure ongoing dam safety and long-term water security. Further information on the project is available at: www.sunwater.com.au/projects/callide-dam-gates-project/

Table 8: Annuity and non-annuity funded expenditure^{1,2}

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 ³	Sunwater Actual \$'000 ³	Sunwater Forecast \$'000	Sunwater Actual \$'000		Sunwater Forecast \$'000	QCA Target \$'000 ⁴	Sunwater Forecast \$'000	QCA Target \$'000 ⁴	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Annuity-funded													
Operations	18.6	-	-	-	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Planned corrective maintenance	803.6	651.9	904.6	1086.1	181.5	2689.5	861.8	12,342.1	229.3	436.6	1591.8	1377.8	871.0
Unplanned corrective maintenance	16.5	-	-	-	-	-	-	-	-	-	-	-	-
Annuity-funded total	838.6	651.9	904.6	1086.1	181.5	2689.5	861.8	12,342.1	229.3	436.6	1591.8	1377.8	871.0
Non-annuity funded													
Dam Improvement Program	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreational facility projects													
Metered offtakes and dividend reinvestment	118.4	1055.1	90.7	0.4	(90.3)	-	-	-	-	-	-	-	-
Non-annuity total	118.4	1055.1	90.7	0.4	(90.3)	-	-	-	-	-	-	-	-

1. Sunwater’s 2022/23 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.³

Sunwater acknowledges there is room for improvement in our asset management system and is working on several initiatives to address these potential improvements, as outlined below.

Predictive maintenance and asset condition reporting

A focus during 2021/22 and beyond is to better leverage data to make more informed decisions and to ensure operations and maintenance activities are implemented safely, timely and efficiently.

To achieve this, Sunwater has invested in a new Enterprise Asset Management system (SAP). The new system and other IT infrastructure changes, such as a mobility solution that enables near real-time data to be loaded into the system and data automation initiatives, have presented a significant opportunity to transition to a data driven decision-making business.

In addition, Sunwater is improving predictive maintenance capability by monitoring asset performance data of critical assets. For example, the preventative maintenance program for pump stations is transitioning to usage-based intervals and energy and condition data is being analysed via remote dashboards. The asset data will provide a greater insight to asset performance, condition, and refurbishment and replacement planning.

³ See pages 58 to 60, www.qca.org.au/wp-content/uploads/2020/02/irrigation-price-review-part-b-sunwater-final-report.pdf

Cost estimation approach

A change to Sunwater’s asset planning cycle in 2019 has improved the near-term cost estimation of annuity funded work. The change targets two years of fully cost-estimated work and has increased the visibility of the forward program.

Sunwater has also recently undertaken an asset valuation exercise to estimate the value of fully replacing high value assets including dams and pipelines using a bottom-up assessment of material line items. This data will inform the replacement values underpinning forecast annuity-funded costs.

Options analyses

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 maintenance work is identified and delivered.

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 project, program and portfolio management framework (P3MF) and is subject to an options analysis.

Options analyses under P3MF examine a range of options and assess the shortlisted options against selected criteria, including financial, regulatory, social and environmental factors.

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 ¹	(5826.2)	(6711.2)	(7361.6)	(8589.4)	(10,308.6)	(21,749.9)	(21,755.4)	(22,315.6)	(20,629.4)
Spend ²	(838.6)	(651.9)	(1086.1)	(2689.5)	(12,342.1)	(436.6)	(1591.8)	(1377.8)	(871.0)
Insurance proceeds receipts (if applicable)									
Prior year	-	-	-	-	-	-	-	-	-
Current year	-	104.5	-	-	-	-	-	-	-
Annuity contribution ³	390.0	399.7	409.7	1345.9	1351.6	1382.0	1982.8	4039.7	4053.3
Interest/financing costs	(436.4)	(502.7)	(551.4)	(375.6)	(450.7)	(951.0)	(951.2)	(975.7)	(902.0)
Sunwater – Closing balance	(6711.2)	(7361.6)	(8589.4)	(10,308.6)	(21,749.9)	(21,755.4)	(22,315.6)	(20,629.4)	(18,349.1)
QCA – Closing balance	(6711.2)	(7361.6)	(8254.4)	(8131.2)	(7364.5)	(6416.7)	(5320.3)		
Difference	-	-	(335.0)	(2177.4)	(14,385.4)	(15,338.7)	(16,995.3)		

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
18-year historical average	12,028

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
Operating costs													
Operations	870.3	1067.2	1395.5	1106.6	(288.9)	1703.3	1374.7	1933.6	1403.6	1912.0	1962.8	2008.4	2054.5
Labour	126.2	135.4	201.0	196.4	(4.6)	222.3	170.6	283.2	174.5	279.9	288.3	297.0	305.9
Contractors	8.6	14.8	20.0	13.8	(6.2)	20.0	48.2	23.0	49.2	20.4	20.8	21.2	21.6
Materials	1.7	0.4	2.0	5.4	3.4	2.0	3.0	2.0	3.1	2.0	2.1	2.1	2.2
Electricity	-	15.1	4.5	5.9	1.4	4.5	4.8	4.5	4.8	4.6	4.7	4.8	4.9
Insurance	299.4	322.9	359.3	369.0	9.6	498.8	406.7	654.6	414.8	667.7	681.1	694.7	708.6
Other	89.7	175.4	142.7	120.3	(22.4)	147.2	127.3	144.7	129.8	148.3	150.4	151.2	154.8
Local area support costs	98.3	118.8	103.2	108.6	5.4	130.2	82.4	184.8	84.2	182.1	187.6	193.2	199.0
Corporate support costs	69.0	127.5	150.1	151.6	1.5	166.7	131.9	269.0	134.7	265.9	273.9	282.1	290.6
Indirect costs	177.5	156.8	412.6	135.7	(276.9)	511.7	399.8	367.8	408.4	341.0	353.9	362.1	366.9
Preventative maintenance	305.4	434.1	227.4	492.5	265.1	267.8	333.8	296.3	341.1	296.2	305.4	313.5	320.7
Labour	91.2	116.8	63.9	141.0	77.2	74.4	102.3	78.3	104.6	80.7	83.1	85.6	88.2
Contractors	31.0	56.7	25.0	54.9	29.9	25.0	12.2	28.5	12.5	29.1	29.7	30.2	30.8
Materials	1.0	3.8	2.0	6.2	4.2	2.0	5.6	2.0	5.7	2.0	2.1	2.1	2.2
Other	4.7	5.2	7.0	9.5	2.5	9.0	12.4	9.0	12.6	9.2	9.4	9.6	9.7
Local area support costs	71.1	100.0	37.5	78.8	41.3	44.2	49.4	50.9	50.5	52.4	54.0	55.6	57.3
Corporate support costs	37.4	95.4	47.7	108.1	60.4	55.8	79.0	74.4	80.7	76.6	78.9	81.3	83.7
Indirect costs	69.1	56.1	44.4	94.0	49.6	57.4	72.9	53.2	74.5	46.1	48.3	49.0	48.8
Corrective maintenance	74.6	112.6	161.2	149.5	(11.7)	143.9	79.1	190.5	80.8	191.4	196.8	201.7	206.2
Labour	8.5	19.5	32.5	22.8	(9.7)	28.6	11.2	36.7	11.5	37.8	39.0	40.1	41.4
Contractors	41.0	40.2	50.0	42.9	(7.1)	40.0	28.2	50.0	28.8	51.0	52.0	53.1	54.1
Materials	5.2	4.8	10.0	28.8	18.8	10.0	7.3	15.0	7.5	15.3	15.6	15.9	16.2
Other	1.1	2.2	5.0	9.4	4.4	5.0	10.2	5.0	10.4	5.1	5.2	5.3	5.4
Local area support costs	6.6	18.2	16.8	13.0	(3.9)	16.7	5.4	23.9	5.5	24.6	25.3	26.1	26.9
Corporate support costs	5.7	16.1	24.3	18.0	(6.3)	21.5	8.7	34.9	8.9	36.0	37.0	38.1	39.3
Indirect costs	6.4	11.5	22.6	14.6	(8.0)	22.1	8.0	24.9	8.2	21.6	22.6	23.0	22.9
Operating costs total	1250.3	1613.9	1784.2	1748.6	(35.6)	2115.0	1787.6	2420.4	1825.4	2399.6	2465.1	2523.5	2581.3
Annuity-funded costs													
Labour			132.1	156.1	24.0	187.8	60.2	516.7	9.6	12.4	106.1	214.5	127.9
Contractors			366.8	602.8	236.0	1440.3	461.5	10,572.9	196.5	367.8	586.3	332.2	160.7
Materials			152.7	25.3	(127.4)	671.4	215.1	114.9	2.1	29.5	667.7	323.6	258.7
Other			-	6.9	6.9	2.7	0.9	-	-	-	0.1	40.3	47.8
Local area support costs			62.6	72.6	10.0	101.7	32.6	295.9	5.5	8.1	69.1	140.6	83.6
Corporate support costs			98.6	125.8	27.2	140.8	45.1	490.9	9.1	11.8	100.8	203.8	121.5
Indirect costs			91.8	96.7	4.9	144.9	46.4	350.8	6.5	7.1	61.6	122.9	70.7
Annuity-funded total¹	838.6	651.9	904.6	1086.1	181.5	2689.5	861.8	12,342.1	229.3	436.6	1591.8	1377.8	871.0
Total costs²	2088.9	2265.9	2688.9	2834.8	145.9	4804.6	2649.4	14,762.5	2054.8	2836.2	4056.8	3901.4	3452.4

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	Project paused to address ongoing challenges.
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"> lower labour costs to inspect electrical services at Callide Dam (20CVA06, \$5k less than forecast) lower contractor costs being incurred for a bathymetric survey of the spillway plunge pool at Kroombit Dam (20CVA13, \$10k less than forecast) a reduction in time required to complete a risk assessment of four manholes at Callide Dam (18CVA01, \$2k less than forecast). 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"> an investigation into the cause of vibrations on the Callide Dam radial gates during operation (20CVA18, \$256k) and implementation of resulting actions (20CVA20, \$44k). Significant works will be undertaken in 2021/22.

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

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	Facility	Activity description	Forecast \$'000
2020/21 ⁴	Callide Dam	Refurbish – investigate and enhance radial gate pump arrangements to ensure full manual control over gate operations when not being automatically controlled by water levels.	811
	Kroombit Dam	Study – investigate roller compacted concrete to determine material properties and confirm strength and stability data for dam safety analysis.	802
	Callide Dam	Study – ground penetrating radar survey of the concrete spillway for sub-surface damage.	244
	Callide Dam	Replace – main electrical services building and diesel generator switchboards based on known asset condition and age, including options analysis and design.	170
	Kroombit Dam	Study – input studies to inform the comprehensive risk assessment (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	Study – 20-year dam safety review based on regulatory requirements to better understand asset condition and risk.	100
	Callide Dam	Study – 20-year dam safety review based on regulatory requirements to better understand asset condition and risk.	83
	Scheme	Study – asset revaluation to define asset value for insurance purposes and future expenditure profiles.	65
	Callide Valley	Replace – groundwater metering (12 sites) to Australian Standard (AS) 4747 to meet regulatory compliance.	63
	Callide Dam	Study – CCTV inspection of the spillway sub-surface drainage to confirm drainage functionality. This information will be used as an input to the 20-year dam safety review.	32
	Multiple	There were five other annuity-funded projects planned for 2020/21 consisting of a Callide Creek weir inspection; a contingency amount for unplanned capital replacements; and arc flash inspections and reviews.	108
		2020/21 Total⁵	

⁴ Based on the program of works underpinning the 2020/21 annuity-funded budget figures presented in this S&PP. This data was extracted from Sunwater’s systems in mid-2020 and has been provided to facilitate future reporting of our performance against forecast costs. Changes to the 2020/21 program of works since the date of extraction are not incorporated here.

⁵ Sunwater commenced a project in 2021 to investigate, remediate and restore the spillway gates at Callide Dam to address intermittent occurrences of vibration during their operation. The 2020/21 project costs of \$1.55 million are not shown in this table.

Year	Facility	Activity description	Forecast \$'000
2021/22	Callide Dam	Remediation – Callide Dam gates to address intermittent occurrences of vibration during their operation and ensure ongoing dam safety and long-term water security.	11,285
	Kroombit Dam	Study – 20-year dam safety review based on regulatory requirements to better understand asset condition and risk.	300
	Kroombit Dam	Study – CRA based on regulatory requirements to better understand asset condition and risk.	158
	Callide Dam	Replace – main electrical services building switchboard based on known asset condition and age.	134
	Callide Dam	Refurbish – inspect radial gates, trunnion bearings and regrease to mitigate known safety risk.	120
	Multiple	There are seven other annuity-funded projects planned for 2021/22 related to meter replacements; a Level 2 assessment of the access bridge at Callide Dam; fence replacements at Callide Diversion Channel; refurbishment of a gate raising header pipe at Callide Dam; a 7-yearly crane inspection at Kroombit Dam; radial gate float chamber sheaves and interconnecting pipework inspection at Callide Dam; and a generator control switchboard replacement at Callide Dam.	344
	2021/22 Total		12,341
2022/23	Kroombit Dam	Study – 20-year dam safety review based on regulatory requirements to better understand asset condition and risk.	306
	Callide Valley	Replace – groundwater metering to AS4747 to meet regulatory compliance.	66
	Callide Dam	Refurbish – multi-level intake based on known asset condition and age.	54
	Callide Dam	Inspect – 7-yearly third-party crane inspection of inlet hoist 1 to meet regulatory compliance.	10
	2022/23 Total		
2023/24	Callide Dam	Refurbish – radial gate pump system extension to mitigate known safety risk. ⁶	1271
	Callide Dam	Replace – electrical services (facility cableways) based on known asset condition and age. Design and drawing stage.	88
	Callide Dam	Refurbish – guard valve 1 based on known asset condition and age.	85
	Callide Valley	Replace – groundwater metering to AS4747 to meet regulatory compliance.	67
	Callide Dam	Replace – inlet tower switchboard based on known asset condition and age.	19
	Multiple	There are four other annuity-funded projects planned for 2023/24 related to a valve house distribution board replacement at Callide Dam; a customer meter outlet upgrade; refurbishment of guard valve 2 at Callide Dam; and refurbishment of the building services switchboard at Callide Dam.	62
	2023/24 Total		1592

⁶ At the time of data extraction this project was forecast to occur in 2023/24. It is now expected to be undertaken as part of the Callide Dam gates project and will be removed from the 2023/24 program of works in future S&PPs.

Year	Facility	Activity description	Forecast \$'000
2024/25	Callide Dam	Replace – electrical services (facility cableways) based on known asset condition and age. Procurement, installation and commissioning stage.	348
	Callide Dam	Study – comprehensive inspection based on regulatory requirements to better understand asset condition and risk.	125
	Callide Dam	Refurbish – 1200mm diameter butterfly valves 3 and 4 based on known asset condition and age.	116
	Callide Dam	Refurbish – 900mm diameter butterfly valves 5 and 6 based on known asset condition and age.	111
	Callide Dam	Refurbish – repack trunnion bearing grease based on known asset condition and age.	97
	Callide Valley	Replace – groundwater metering to AS4747 to meet regulatory compliance.	69
	Callide Dam	Refurbish – 660mm diameter regulating valve 1 (repaint, new seals etc.) based on known asset condition and age.	59
	Kroombit Dam	Study – comprehensive inspection based on regulatory requirements to better understand asset condition and risk.	54
	Callide Dam	Refurbish – outlet works guard valves based on known asset condition and age.	53
	Multiple	There are 15 other annuity-funded projects planned for 2024/25 related to gate valve and regulative valve refurbishments at Callide Dam; electrical works at Callide Dam; an options study into the electrical control equipment at Callide Dam; signage replacements at Callide Diversion Channel; a generator fuel pump motor replacement at Callide Dam; refurbishment of Callide Diversion Channel erosion protection works; pump refurbishments; outlet works pipe and valve works at Callide Dam; and generator works at Callide Dam.	347
	2024/25 Total		1379
2025/26	Callide Dam	Refurbish – site facilities (barrier fencing) based on known asset condition and age.	263
	Callide Dam	Replace – outlet works inlet trash rack based on known asset condition and age.	122
	Scheme	Study – asset revaluation to define asset value for insurance purposes and future expenditure profiles.	73
	Callide Valley	Replace – groundwater metering to AS4747 to meet regulatory compliance.	70
	Callide Dam	Replace – water level recorder based on known asset condition and age.	66
	Callide Dam	Replace – left and right-hand gate lifting system trash racks based on known asset condition and age.	59
	Kroombit Dam	Replace – gauge boards based on known asset condition and age.	27
	Multiple	There are 11 other annuity-funded projects planned for 2025/26 related to an outlet works sump pump level controller replacement; a comprehensive inspection of Callide Creek Weir; testing pump local control stations; rain and tailwater level recorder replacements at Kroombit Dam; testing a gate pump pressure switch; a baulk storage rack refurbishment at Kroombit Dam; an inlet tower intake crane hydraulic system refurbishment at Callide Dam; sump pump outlet works replacements; and building works.	191
		2025/26 Total	

Contact us

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

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