



Final Service and Performance Plan

2022/23

Bowen Broken Rivers Bulk Water Service Contract

28 July 2022

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At a glance


Our performance in 2020/21



Operating costs:
\$1.44 million (4.5% more than QCA target)

Key drivers of cost variance:


- higher operations costs
- higher preventative maintenance costs due to increased labour and non-direct costs.



Annuity-funded costs:
\$0.83 million (67.4% more than QCA target)


Key drivers of cost variance:

- carryover of projects from 2019/20
- comprehensive risk assessment.



Total water deliveries:
18,604 ML


Water delivered to irrigators: 137 ML



Service targets: Met

No exceptions


Outlook for 2022/23



Forecast operating costs:
\$1.61 million

Significant areas of expenditure:

- insurance (\$0.24 million)
- operations (\$0.78 million)
- preventative maintenance (\$0.29 million)
- corrective maintenance (\$0.15 million).



Forecast annuity-funded costs:
\$0.34 million

Key projects planned:

- refurbish pump unit 3 pump at Gattonvale pump station (\$0.08 million)
- regulating valves 1 and 2 at Eungella Dam (\$0.12 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 sets out Sunwater’s actual costs for 2020/21.

The purpose of this year’s S&PP for the Bowen Broken Rivers Bulk Water Service Contract is to:

- present to customers Sunwater’s projected costs¹ for the upcoming five-year period, i.e. 2022/23 to 2026/27
- consult with our customers on forecast operating and annuity-funded costs for 2022/23 and the forward program of works
- examine Sunwater’s performance in 2020/21 against cost and service targets.

Our focus during 2022/23 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 Eungella Dam are implemented safely, timely and efficiently.

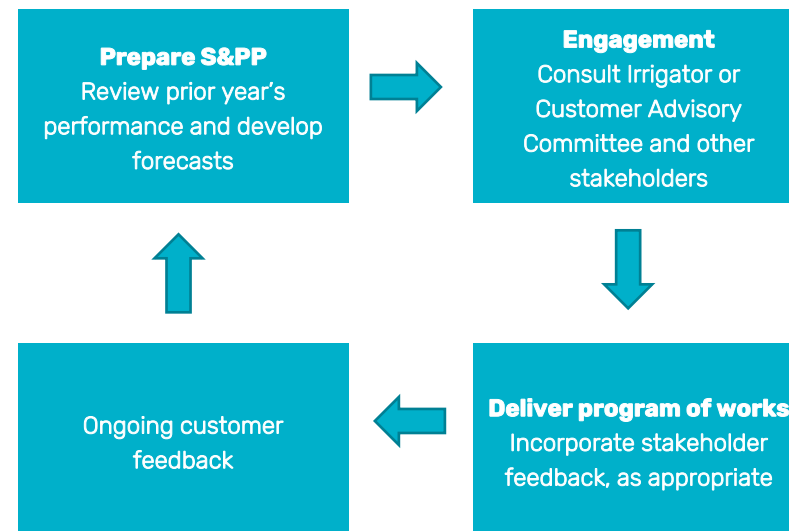
In addition to this S&PP, Sunwater has published an information sheet which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The information sheet is available at:

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

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 primary purpose of this scheme is to supply industrial users. Water is also supplied to irrigation farms downstream of Bowen River Weir and to the towns of Glenden and Collinsville.

The water allocations for each customer segment are included in Table 1, together with water deliveries in 2020/21. Historical total water usage is available in **Appendix 1**.

Table 1: Water allocations and usage data

Customer segment	Total water allocations (ML)	High-A1 priority water allocations (ML)	High-A2 priority water allocations (ML)	Medium priority water allocations (ML)	Total water deliveries 2020/21 (ML)
Irrigation	5676	0	0	5676	137
Urban	1785	1785	0	0	958
Industrial	30,580	9189	21,391	0	17,297
Sunwater (excl. distribution losses)	395	181	214	0	126
Sunwater distribution losses	494	494	0	0	87
Total	38,930	11,649	21,605	5676	18,604

Irrigation charges

The 2022/23 charges and cost per megalitre are shown in Table 2.

Table 2: Irrigation charges for 2022/23

Tariff group	Product	2022/23 (\$/ML) ¹	QCA cost-reflective (\$/ML) ²
River	Allocation Charge – Part A	10.63	7.46
	Allocation Water – Part B	6.17	7.69

1. Includes the Queensland Government's 15 per cent discount for irrigation customers. Refer to www.rdmw.qld.gov.au for more information.
2. 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 Bowen Broken Rivers Bulk Water Service Contract. Table 3 below 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		
			2018/19	2019/20	2020/21
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	8 weeks	0	0	0
	For shutdowns planned to exceed 3 days	3 weeks	0	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0	0
Unplanned shutdowns – duration	Unplanned shutdowns will be fixed so that at least partial supply can be resumed	7 days	0	0	0
Maximum number of interruptions	Planned or unplanned interruptions per water year	6	0	0	0

In addition, Sunwater has company-wide customer interactions service targets. Our performance in 2020/21 against these service targets is shown in Table 4.

Table 4: Customer interactions service targets and performance

Service target	Target	2020/21
Telephone answering ¹	80.00%	90.93%
Requests actioned within Service Level Agreement (SLA) timeframes ²	> 95.00%	99.14%

1. This target measures the percentage of 13 15 89 calls that are answered within 60 seconds.
2. This target measures the percentage of email or workflow requests (such as property transfers and temporary transfers) to the Customer Support team that are completed within the agreed SLAs. The SLA timeframes range between two and 10 business days, depending on the request.

Key infrastructure

Table 5 lists the key infrastructure used to deliver bulk water services to our customers in Bowen Broken Rivers.

Table 5: Key infrastructure

Asset	Description	Total storage capacity (ML)
Eungella Dam	Earth and rock fill embankment with an uncontrolled concrete ogee crest spillway that has a concrete lined sideways chute. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	112,400
Gattonvale Off-stream Storage	Incorporates a river water harvesting pump station with a nominal capacity of 250 ML/day.	5232
Bowen River Weir	Combination of mass concrete, tiered sheet piling and rock gabions and mattresses.	943

Financial summary—Revenue and expenditure

A high-level summary of the budgeted financial performance of the Bowen Broken Rivers 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 Bowen Broken Rivers Bulk Water Service Contract in 2022/23.

In 2022/23, Sunwater expects to spend \$501 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 Bowen Broken Rivers Bulk Water Service Contract. Details on the planned spend for this scheme are outlined on subsequent pages of this S&PP.

Figure 2: Total Sunwater cost pools and allocation to scheme—2022/23 forecast (\$M)

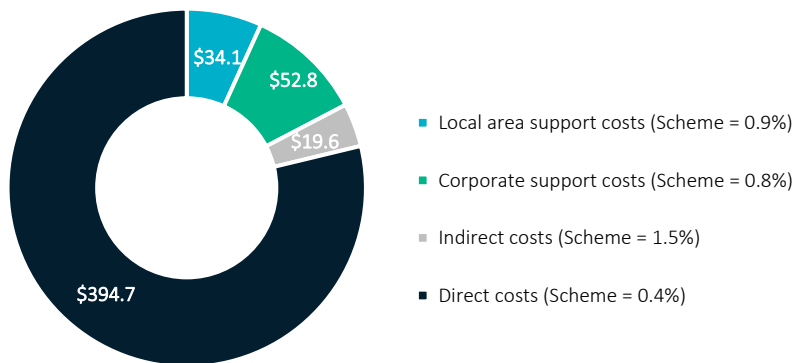


Table 6: Service contract financial summary

Bowen Broken Rivers Bulk Water Service Contract	2018/19 Sunwater / QCA Actual \$'000	2019/20 Actual \$'000	2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000
Revenue					
Irrigation	73.9	76.4	67.4	88.7	75.4
Community Service Obligation	-	-	-	-	-
Industrial ¹	5535.2	5632.4	5912.6	5997.9	5891.9
Urban ¹	-	-	-	-	-
Revenue transfers ²	523.8	545.5	537.1	801.4	794.1
Drainage	-	-	-	-	-
Other	10.2	15.6	7.8	13.0	13.0
Revenue total	6143.1	6269.9	6524.9	6901.0	6774.5
Less – Operating expenditure	1772.9	1617.7	1946.2	2300.9	2016.1
Less					
Annuity-funded	1248.4	2141.0	827.7	353.4	336.4
Non-annuity funded ³	-	-	90.3	27.1	161.2
Surplus (deficit)	3121.8	2511.2	3660.8	4219.5	4260.7

- 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 Collinsville and Eungella pipelines. The revenue accrues to the pipeline systems 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 Bowen Broken Rivers Bulk Water Service Contract is recreational facility projects from 2020/21.

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 Bowen Broken Rivers Bulk Water Service Contract. For a more detailed breakdown by cost category, refer to **Appendix 2**.

Our performance in 2020/21

In 2020/21, operating costs were broadly in line with the QCA’s recommended cost target. Increases in insurance costs were largely offset by lower electricity costs. Operations and preventative maintenance costs were higher due to increased labour and non-direct costs.

Table 7: Operating expenditure¹

Bowen Broken Rivers Bulk Water Service Contract	2018/19	2019/20	2020/21			2021/22		2022/23		2023/24	2024/25	2025/26	2026/27
	Sunwater Actual \$'000	Sunwater Actual \$'000	QCA Target \$'000 ²	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	1131.3	1171.5	1026.8	1056.6	29.7	1271.4	1127.4	1167.4	1151.8	1219.5	1270.0	1280.1	1335.3
Electricity	153.6	151.7	185.4	147.2	(38.3)	256.4	268.2	144.0	272.0	148.0	152.0	156.2	160.5
Insurance	144.6	165.1	182.2	222.0	39.8	293.6	185.8	239.8	190.1	258.7	279.1	301.1	324.9
Operations	833.0	854.8	659.2	687.4	28.2	721.3	673.4	783.6	689.8	812.9	838.9	822.8	849.9
Preventative maintenance	470.7	317.3	234.1	285.0	50.9	322.9	239.1	290.6	244.8	303.5	315.8	327.7	338.4
Corrective maintenance	170.9	128.8	113.8	95.2	(18.6)	272.1	116.2	153.0	119.0	157.6	161.9	166.0	171.3
Operating costs total	1772.9	1617.7	1374.7	1436.8	62.1	1866.3	1482.7	1610.9	1515.6	1680.6	1747.7	1773.9	1845.1
Recreational facility costs ³				509.4		434.6		405.2		420.6	434.7	434.7	448.9
Operating costs total (incl. recreational facility costs)	1772.9	1617.7		1946.2		2300.9		2016.1		2101.3	2182.4	2208.6	2294.0

1. Sunwater’s 2022/23 to 2026/27 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.

Electricity

Sunwater continues to proactively manage the cost of electricity. In 2020/21, Sunwater undertook the following energy improvement initiatives in the Bowen Broken Rivers Bulk Water Service Contract:

- a review of our electricity tariff selections, to ensure that we are using the most cost-effective tariffs. The review focused on pump stations as these assets consume the most electricity. There were no tariff changes in 2020/21.
- commencement of Operational Electricity Dashboard Reporting with key electricity metrics monitored on a continual basis to identify efficiency opportunities.²

Outlook for 2022/23 Operations

Bowen Broken Rivers Bulk Water Service Contract's total operations budget in 2022/23 are in line with the QCA's recommended cost target (1.4 per cent above). Sunwater expects electricity costs will be lower than the QCA's target, while insurance (see below) and operations costs are expected to be higher due to higher non-direct costs.

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.

Our insurance broker has indicated that prior to the early 2022 flood events, premium increases were trending downwards from a peak in late 2020 (with some exceptions). However, with another significant natural

² Some measuring points are not currently available at all pump stations. Sunwater is working towards capturing this information in the future.

disaster in Australia, this is now likely to change. Insurance premiums in 2022/23 are therefore expected to be higher than the QCA's recommended allowance and historical costs.

Electricity

In 2022/23, Sunwater will continue our focus on managing the cost of electricity in this service contract. The following energy improvement initiatives are currently planned:

- annual tariff optimisation analysis
- potential desktop energy audit
- monitoring of asset energy operational performance.

Preventative maintenance

The forecast preventative maintenance costs for the Bowen Broken Rivers Bulk Water Service Contract are 18.7 per cent above the QCA's recommended cost target. This is because of higher labour costs and associated non-direct costs.

Corrective maintenance

In 2022/23, Sunwater anticipates spending \$0.15 million on corrective maintenance in the Bowen Broken Rivers Bulk Water Service Contract. This is 28.6 per cent above the QCA's recommended cost target, primarily due to higher labour and non-direct costs. Sunwater's forecast assumes a wet year, which predicts more repairs will be undertaken than may have been the case in the past.

Electricity metrics

Table 8 sets out electricity usage and efficiency-related information for the Bowen Broken Rivers Bulk Water Service Contract.

Table 8: Electricity usage and efficiency-related metrics

Metric	2017/18	2018/19	2019/20	2020/21
Electricity usage (kWh) – pump station	307,559	546,390	593,506	549,203
Volume pumped (ML)	5226	3615	4911	3838
Actual electricity cost per ML (\$/ML pumped)	20.61	42.49	30.88	38.35
Average pump energy indicator ¹ (kWh/ML/per metre of head)	6.43	5.80	5.28	3.88

1. The industry guidelines are 3.4 to 4.5, depending on the size and design of the pump station with the benchmark for larger pump stations being more efficient.

To effectively monitor pump efficiency, a granular level of both energy and water data is required. With the installation of interval meters at Gattonvale pump station in 2020 to capture energy consumption at a granular level, Sunwater is now able to more frequently monitor our performance against this metric.

Having said this, the irregular operation makes it difficult to monitor pump efficiency on an ongoing basis, as the pump units typically operate for three months straight and then remain idle for the rest of the year. A more regular operating pattern allows more regular monitoring.

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

Annuity-funded expenditure include funds for preventative and corrective maintenance, as well as large, one-off operations activities. Preventative maintenance activities monitor the asset condition and inform when an asset needs to be refurbished or replaced under the corrective maintenance program.

Non-annuity funded expenditure largely relates to Sunwater’s Dam Improvement Program and recreational facility costs.

Table 9 outlines our annuity and non-annuity funded expenditure for this service contract.

Table 9: Annuity and non-annuity funded expenditure^{1,2}

Bowen Broken Rivers Bulk Water Service Contract	2018/19	2019/20	2020/21			2021/22		2022/23		2023/24	2024/25	2025/26	2026/27
	Sunwater / QCA Actual \$'000 ³	Sunwater Actual \$'000	QCA Target \$'000 ⁴	Sunwater Actual \$'000	Variance \$'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	-	-	-	-	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Planned corrective maintenance	674.3	1417.4	494.5	827.7	333.2	353.4	-	336.4	185.3	277.6	826.2	529.0	174.3
Unplanned corrective maintenance	574.1	723.5	-	-	-	-	-	-	-	-	-	-	-
Annuity-funded total	1248.4	2141.0	494.5	827.7	333.2	353.4	-	336.4	185.3	277.6	826.2	529.0	174.3
Non-annuity funded													
Dam Improvement Program	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreational facility projects	-	-	-	90.3	-	27.1	-	161.2	-	-	81.3	19.4	69.6
Metered offtakes and dividend reinvestment	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-annuity total	-	-	-	90.3	-	27.1	-	161.2	-	-	81.3	19.4	69.6

1. Sunwater’s 2022/23 to 2026/27 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 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.

Our performance in 2020/21

Performance against the QCA target

Sunwater updates our program of works based on our whole-of-life replacement and maintenance strategy, which looks at the risk and condition of each asset and uses this information to estimate the future work required to ensure the asset will continue to provide the required level of service into the future. Other factors such as changes in project delivery timing (e.g. due to weather) may also affect the program of works.

These factors mean the actual program of works delivered in any given year will differ to the program assessed by the QCA. At a project level, cost variances may also occur due to changes in the scope of work and cost inputs.

In 2020/21, total annuity-funded costs were higher than the QCA's recommended cost target. This was primarily driven by additional works requiring completion such as the comprehensive risk assessment and carryover projects from the 2019/20 program.

Project level cost variances

Appendix 3 provides a comparison of the annuity-funded projects planned for 2020/21 and the actual projects undertaken, together with justification for the variances.

Outlook

Details of the major annuity-funded projects planned for the 2022/23 to 2026/27 period are set out in **Appendix 4**. In 2022/23, Sunwater plans to undertake pump and regulating valve refurbishments.

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 2022/23 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 SAP Analytic Cloud should also allow asset condition data to be trended over time. This will present asset condition decay curves which can be used to predict when an asset should be

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

scheduled for maintenance. The asset data will provide a greater insight to asset performance, condition, and refurbishment and replacement planning.

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 undertook an asset valuation exercise in 2021 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 informs the replacement values underpinning forecast annuity-funded costs outside of the immediate program of works.

Options analyses

Sunwater has implemented 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 is subject to an options analysis. High value, high complexity work will also be assessed against the relevant criteria to determine if it meets Sunwater’s project, program, and portfolio management framework (P3MF) for project management guidelines.

Options analyses 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 10 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 10: Annuity balance

Bowen Broken Rivers Bulk Water Service Contract	2018/19 QCA Actual \$'000	2019/20 Actual \$'000	2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000	2024/25 Forecast \$'000	2025/26 Forecast \$'000	2026/27 Forecast \$'000
Opening balance ¹	(2783.8)	(3779.8)	(5731.5)	(5965.4)	(5731.7)	(5464.2)	(5115.1)	(5490.9)	(5532.2)
Spend ²	(1248.4)	(2141.0)	(827.7)	(353.4)	(336.4)	(277.6)	(826.2)	(529.0)	(174.3)
Insurance proceeds receipts (if applicable)									
Prior year	-	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-	-
Annuity contribution ³	460.9	472.4	844.3	847.9	854.4	865.6	674.0	727.8	733.5
Interest/financing costs	(208.5)	(283.1)	(250.6)	(260.8)	(250.6)	(238.9)	(223.6)	(240.1)	(241.9)
Sunwater – Closing balance	(3779.8)	(5731.5)	(5965.4)	(5731.7)	(5464.2)	(5115.1)	(5490.9)	(5532.2)	(5214.9)
QCA – Closing balance	(3779.8)	(5406.7)	(5293.3)	(4676.8)	(4212.1)	(3729.8)			
Difference	-	(324.8)	(672.1)	(1054.9)	(1252.1)	(1385.2)			

1. The opening balances for 2018/19 and 2019/20 reflect the QCA's 2020–2024 irrigation price investigation final recommendations.
2. The spend for 2018/19 reflects the QCA's 2020–2024 irrigation price investigation final recommendations, which included adjustments to Sunwater's actual costs. The 2019/20 and 2020/21 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 19-year average for the 2002/03 to 2020/21 period.

Year	Usage (ML)
2010/11	11,085
2011/12	13,753
2012/13	15,453
2013/14	13,254
2014/15	16,894
2015/16	17,251
2016/17	11,362
2017/18	14,028
2018/19	16,653
2019/20	21,683
2020/21	18,604
19-year historical average	15,527

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

Bowen Broken Rivers Bulk Water Service Contract	2018/19	2019/20	2020/21			2021/22		2022/23		2023/24	2024/25	2025/26	2026/27
	Sunwater / QCA Actual \$'000	Sunwater Actual \$'000	QCA Target \$'000	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'000	Sunwater Forecast \$'000	QCA Target \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operating costs													
Operations	1131.3	1171.5	1026.8	1056.6	29.7	1271.4	1127.4	1167.4	1151.8	1219.5	1270.0	1280.1	1335.3
Labour	202.7	183.8	145.2	171.2	26.0	167.3	148.5	187.8	152.3	193.4	199.2	205.2	211.4
Contractors	69.4	115.3	82.1	48.9	(33.2)	63.1	83.8	78.2	85.7	84.2	90.5	57.1	58.7
Materials	7.7	6.4	14.9	3.5	(11.5)	7.5	15.2	7.5	15.6	7.7	7.9	8.2	8.4
Electricity	153.6	151.7	185.4	147.2	(38.3)	256.4	268.2	144.0	272.0	148.0	152.0	156.2	160.5
Insurance	144.6	165.1	182.2	222.0	39.8	293.6	185.8	239.8	190.1	258.7	279.1	301.1	324.9
Other	50.8	186.9	52.1	44.3	(7.8)	65.0	53.2	67.6	54.4	68.6	71.5	72.6	73.8
Local area support costs	177.4	97.5	70.1	95.9	25.8	108.9	71.6	122.2	73.3	125.8	129.6	133.5	137.5
Corporate support costs	186.9	139.3	112.1	164.3	52.2	159.0	114.5	178.4	117.3	183.7	189.3	194.9	200.8
Indirect costs	138.1	125.5	182.7	159.4	(23.3)	150.4	186.6	142.0	191.2	149.4	150.9	151.3	159.5
Preventative maintenance	470.7	317.3	234.1	285.0	50.9	322.9	239.1	290.6	244.8	303.5	315.8	327.7	338.4
Labour	84.0	67.7	41.1	73.6	32.5	64.6	42.1	60.8	43.2	62.6	64.5	66.4	68.4
Contractors	49.6	55.6	44.9	27.8	(17.0)	45.1	45.8	30.1	46.9	34.8	39.7	44.9	46.1
Materials	1.1	0.9	2.6	2.6	(0.1)	3.8	2.7	3.8	2.8	3.9	4.0	4.1	4.2
Other	153.6	58.9	64.6	3.8	(60.8)	62.4	65.8	63.9	67.4	65.7	67.5	69.3	71.2
Local area support costs	72.8	37.3	19.8	43.9	24.0	42.0	20.3	39.5	20.8	40.7	41.9	43.2	44.5
Corporate support costs	72.9	51.2	31.8	75.1	43.3	61.3	32.4	57.8	33.2	59.5	61.3	63.1	65.0
Indirect costs	36.8	45.8	29.3	58.3	29.0	43.8	29.9	34.8	30.7	36.4	37.0	36.7	39.0
Corrective maintenance	170.9	128.8	113.8	95.2	(18.6)	272.1	116.2	153.0	119.0	157.6	161.9	166.0	171.3
Labour	22.8	24.3	14.9	14.8	(0.1)	47.5	15.3	25.0	15.6	25.7	26.5	27.3	28.1
Contractors	74.1	44.5	48.5	33.4	(15.1)	96.6	49.5	52.6	50.7	54.1	55.6	57.1	58.7
Materials	9.1	9.1	10.7	10.0	(0.7)	7.5	10.9	7.5	11.1	7.7	7.9	8.2	8.4
Other	10.1	2.9	10.4	1.1	(9.2)	12.0	10.6	13.5	10.8	13.9	14.3	14.7	15.1
Local area support costs	24.5	13.1	7.2	8.8	1.6	30.9	7.3	16.2	7.5	16.7	17.2	17.8	18.3
Corporate support costs	16.8	18.6	11.5	15.2	3.7	45.2	11.8	23.7	12.0	24.5	25.2	25.9	26.7
Indirect costs	13.5	16.3	10.6	11.9	1.2	32.3	10.8	14.3	11.1	15.0	15.2	15.1	16.0
Operating costs total	1772.9	1617.7	1374.7	1436.8	62.1	1866.3	1482.7	1610.9	1515.6	1680.6	1747.7	1773.9	1845.1
Annuity-funded costs													
Labour		96.2	56.4	94.5	38.0	12.9	-	56.3	31.0	46.5	138.6	89.2	29.3
Contractors		1824.3	292.7	489.9	197.2	296.7	-	62.0	34.1	51.0	151.8	97.4	31.9
Materials		22.1	10.1	17.0	6.8	10.2	-	62.0	34.1	51.0	151.8	97.4	31.9
Other		21.6	9.0	15.1	6.1	4.2	-	33.8	18.6	27.8	82.8	53.1	17.4
Local area support costs		46.5	28.3	47.4	19.1	8.4	-	36.6	20.2	30.2	90.1	58.0	19.1
Corporate support costs		67.0	54.6	91.4	36.8	12.2	-	53.5	29.5	44.1	131.7	84.7	27.9
Indirect costs		63.2	43.3	72.5	29.2	8.7	-	32.2	17.7	27.0	79.4	49.3	16.7
Annuity-funded total¹	1248.4	2141.0	494.5	827.7	333.2	353.4	-	336.4	185.3	277.6	826.2	529.0	174.3
Total costs²	3021.3	3758.7	1869.2	2264.5	395.3	2219.7	1482.7	1947.3	1700.9	1958.2	2573.9	2302.9	2019.4

1. The 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 2020/21

The below table sets out the major annuity-funded projects planned for the Bowen Broken Rivers Bulk Water Service Contract in 2020/21⁴ and the actual projects undertaken.

Facility	Activity description	Forecast \$'000	Actual \$'000	Commentary
Gattonvale pump station	Refurbish – project to automatically remove silt and debris deposition during flood events to enable continued operation during peak opportunity pumping periods.	244	163	This project was unable to be completed due to high water levels.
Eungella Dam	Study – comprehensive risk assessment (CRA) and updated consequence, geotechnical and stability input studies.	229	289	The original budget was insufficient to cover the scope of required.
Eungella Dam	Study – 20-year dam safety review, including spillway crest/chute anchor pull-out tests and inspections.	103	202	Geotechnical investigations were carried out to better assess the risk at Eungella Dam. The cost of this investigation was apportioned between the 20-year dam safety review and the CRA (refer above) as it was used to inform both projects.
Gattonvale Off-stream Storage	Replace – isolation valve gearbox at the pump station, perform minor storage civil works, and undertake a cathodic protection study.	53	28	Works were delayed due to valve supply issues, with the project completed in 2021/22. The cathodic protection scope of work was reduced because evidence showed a lower level of corrosion in the steelwork and the anodes were providing sacrificial protection.
Eungella Dam	Refurbish – spillway bridge.	37	125	Contractor costs, following a tender process, were higher than anticipated.
Scheme	Study – asset revaluation.	31	0	This project was not undertaken as part of the annuity-funded program of works.
Scheme	Study – arc flash study.	26	14	Sunwater was unable to fully complete this project during the financial year due to operational demands limiting the ability to affect an outage to gain access to the infrastructure.
Multiple	Contingency amount for unplanned capital replacements and other minor works.	33	5	The service contract's contingency budget of \$29k was diverted to other projects.
Multiple	Various projects.	0	1	Minor accruals adjustments for projects undertaken in the previous financial year.
2020/21 Total		756	828	

⁴ Based on information extracted from Sunwater's systems in mid-2020. See the 2021/22 S&PP at www.sunwater.com.au/schemes/Bowen-Broken-Rivers/

Appendix 4—Annuity-funded projects for 2022/23 to 2026/27

The below table sets out Sunwater’s currently planned annuity-funded projects for the 2022/23 to 2026/27 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
2022/23	Gattonvale pump station	Refurbish – pump unit 3 pump based on known asset condition and age.	81
	Bowen River Weir	Refurbish – inlet trash screens (repaint and repair) based on known asset condition and age.	60
	Eungella Dam	Refurbish – regulating valve 1 based on known asset condition and age.	60
	Eungella Dam	Refurbish – regulating valve 2 based on known asset condition and age.	60
	Eungella Dam	Inspect – spillway bridge based on the Department of Transport and Main Roads’ Inspection Manual.	38
	Gattonvale pump station	Refurbish – pump unit 1 non return valve.	38
	2022/23 Total		336
2023/24	Gattonvale pump station	Refurbish – pump unit 2 pump based on known asset condition and age.	89
	Eungella Dam	Refurbish – intake trash screen (blast, paint and new bearings and seals) based on known asset condition and age.	46
	Bowen River Weir	Refurbish – left-hand penstock gates, frames and actuators based on known asset condition and age.	39
	Bowen River Weir	Refurbish – right-hand penstock gates, frames and actuators based on known asset condition and age.	39
	Eungella Dam	Investigate – spillway sub surface drainage to mitigate known safety risk.	25
	Multiple	There are two other annuity-funded projects planned for 2023/24 related to replacing the supervisory control and data acquisition (SCADA) computers and software at Gattonvale pump station and Bowen River Weir.	40
	2023/24 Total		278
2024/25	Gattonvale pump station	Replace – rising main air valves (5), valve pit air valves (4) and gate valves (5) based on known asset condition and age.	131
	Eungella Dam	Study – comprehensive inspection to meet regulatory compliance.	124
	Gattonvale pump station	Refurbish – pump unit 1 pump based on known asset condition and age.	114
	Gattonvale pump station	Refurbish – valve pit metal work (blast, paint and replace fixings) based on known asset condition and age.	71
	Bowen River Weir	Study – comprehensive inspection to meet asset management, condition, and risk standards.	68

Year	Facility	Activity description	Forecast \$'000
	Bowen River Weir	Refurbish – metal work covers and gate guides based on known asset condition and age.	57
	Gattonvale pump station	Replace – flow meter based on known asset condition and age.	51
	Gattonvale pump station	Refurbish – rising main 1200 mm isolation valve.	50
	Gattonvale Off-stream Storage	Study – comprehensive inspection to meet asset management, condition, and risk standards.	48
	Bowen River Weir	Refurbish – outlet works penstock hydraulic actuators.	47
	Multiple	There are five other annuity-funded projects planned for 2024/25. These projects include refurbishment of trash screens at Gattonvale pump station; control building refurbishments at Gattonvale pump station; replacement of a rotork actuator at Eungella Dam; and minor electrical works at Eungella Dam.	67
	2024/25 Total		826
2025/26	Bowen River Weir	Replace – fishway hydraulic system instrumentation based on known asset condition and age.	120
	Bowen River Weir	Replace – fishway programmable logic controller based on known asset condition and age.	65
	Eungella Dam	Refurbish – outlet works and dam crest access road based on known asset condition and age.	65
	Eungella Dam	Refurbish – outlet works right-hand guard valve based on known asset condition and age.	62
	Eungella Dam	Refurbish – outlet works left-hand guard valve based on known asset condition and age.	62
	Bowen Broken River	Replace – gauging station building based on known asset condition and age.	38
	Multiple	There are six other annuity-funded projects planned for 2025/26. These projects include left-hand and right-hand penstock reduction gear box replacements at Bowen River Weir; signage replacements; decommissioning of obsolete fishway entrance/gates; an asset valuation; and control building refurbishments at Bowen River Weir.	118
2025/26 Total		529	
2026/27	Eungella Dam	Replace – embankment surface settlement points.	80
	Bowen River Weir	Refurbish – fishway 1000 mm and 750 mm vertical lift gates.	34
	Gattonvale Off-stream Storage	Replace – control room and high voltage room air conditioners.	30
	Multiple	There are three other annuity funded projects planned for 2026/27. They include an options analysis for Eungella Dam outlet works conduit repairs; intake winch refurbishment; and an options analysis for the Gattonvale control cubicle replacement.	30
	2026/27 Total		174

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This Service and Performance Plan 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 plan relates, and the operations and activities actually undertaken by Sunwater during the relevant periods, may vary materially from the information contained in this plan. This plan should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this plan 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 plan or the information contained within it.