



Final Service and Performance Plan 2023

Bowen Broken Rivers Bulk Water Service Contract

13 December 2023

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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.


At a glance

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.

Our irrigation charges

Table 1 Irrigation charges for 2023-24

 Charges by tariff group 2023-24							
Bowen Broken Rivers		Irrigation charge ¹		Cost-reflective charge ²		Δ to cost reflective	
Bowen Broken Rivers	Part A	\$6.49	\$/ML	\$7.63	\$/ML	-\$1.14	\$/ML
	Part B	\$6.32	\$/ML	\$7.86	\$/ML	-\$1.54	\$/ML


- 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.

For more information on Sunwater's fees and charges, refer to:


www.sunwater.com.au/customer/fees-and-charges/.

Our performance


 Operations and maintenance costs				
		QCA \$'000	Sunwater \$'000	Δ to QCA
Actual	2022-23	\$1,515.6	\$1,499.3	-1.1% ◀▶
Forecast	2023-24	\$1,548.5	\$1,655.6	6.9% ▲

 Expenditure funded by the annuity				
		QCA \$'000	Sunwater \$'000	Δ to QCA
Actual	2022-23	\$185.3	\$230.7	24.5% ▲
Forecast	2023-24	\$199.2	\$269.1	35.1% ▲
Actual + Forecast	Σ Price path	\$879.0	\$1,758.3	100.0% ▲

▲	△	◀▶	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target	5% below the QCA target	10% below the QCA target

 Water delivered	Total		To irrigators	
	2021-22	2022-23	2021-22	2022-23
	17,791 ML	13,082 ML	0.0 ML	0.0 ML
	-26.5% ▼		-	◀▶
				YoY change by group

▲	◀▶	▼
5%	0%	-5%

 Service targets	Exceedances	Notes
2021-22	0	Unplanned shutdowns (duration) and maximum number of interruptions were not met.
2022-23	0	Unplanned shutdowns (duration) and maximum number of interruptions were not met.

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 2022-23.

The purpose of this year's S&PP for Bowen Broken Rivers is to:

- examine Sunwater's performance in 2022-23 against cost and service targets
- present to customers Sunwater's projected costs¹ for 2023-24 and 2024-25
- consult with our customers on forecast operating and annuity-funded costs for 2023-24 and the forward program of works.

In addition to this S&PP, Sunwater submitted its irrigation pricing proposal to the Queensland Competition Authority (QCA) on 30 November 2023 which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The pricing proposal and associated customer material is available at: www.sunwater.com.au/projects/price-path/.

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.

Sunwater engages with its customers both formally and informally throughout the year and customer feedback is a valuable part of our planning process.

The publication of an annual S&PP is an important part of the formal feedback process, providing a snapshot of Sunwater's performance over the most recently completed financial year, as well as an outline of the areas of focus for the current year.

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.

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

Email: sppfeedback@sunwater.com.au

Post: S&PP Feedback

PO Box 15536

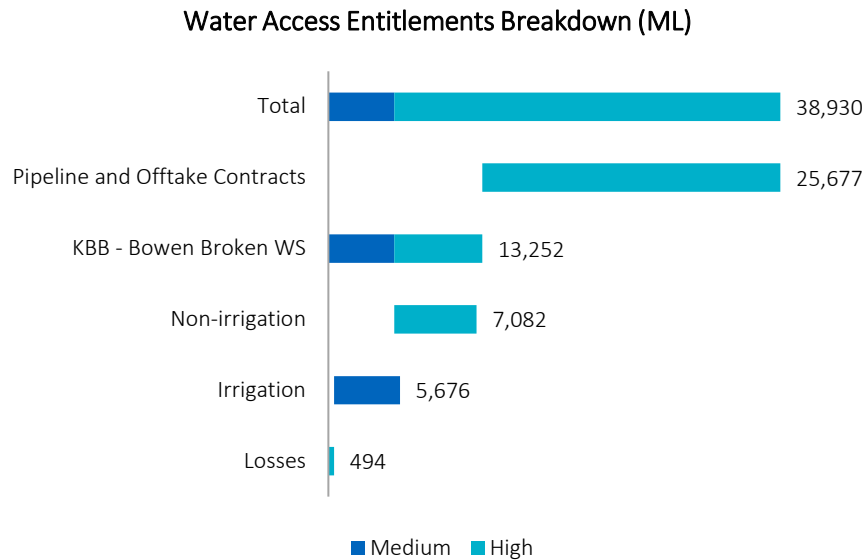
City East Qld 4002

Delivering services to our customers

Entitlements

The water allocations for each customer segment are shown below.

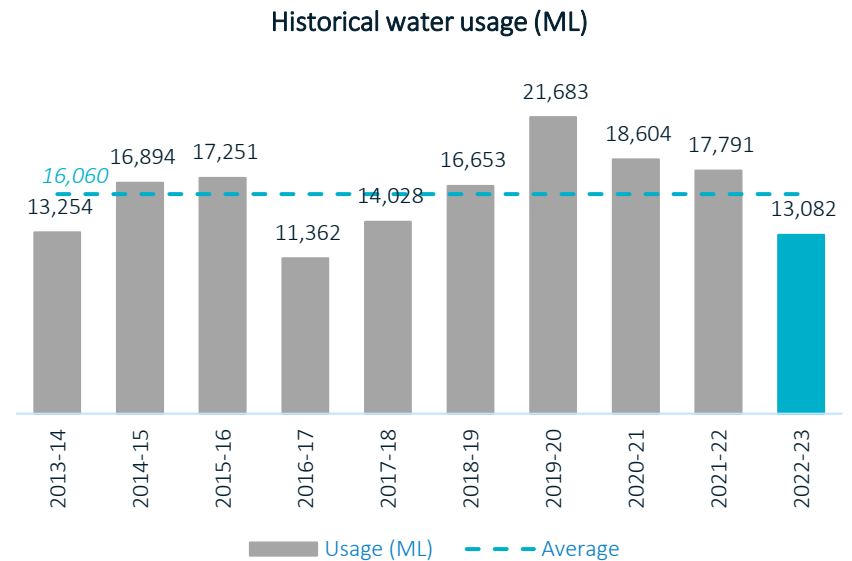
Figure 1 Water access entitlements (as of 30 June 2023)



Historical water usage

The chart below shows annual water usage for the past 10-years.

Figure 2 Historical water usage for the past 10-years



- Water usage in 2022-23 was below the level of the 10-year average of 16,060 ML.
- Part B prices for the current period were set using a 20-year average of 14,231 ML.

Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for Bowen Broken Rivers. Table 2 sets out our recent performance against selected service targets for this scheme.

Table 2: Scheme service targets and performance

Service target		Target	Number of exceptions		
			2020-21	2021-22	2022-23
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 2022-23 against these service targets is shown in Table 3.

Table 3: Customer interactions service targets and performance

Service target	Target	2022-23
Telephone answering ¹	80.00%	92.50%
Requests actioned within Service Level Agreement (SLA) timeframes ²	> 95.00%	99.47%

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

Table 4: 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

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 5 sets out actual and forecast operating expenditure for Bowen Broken Rivers.

As Bowen Broken Rivers is one of our high electricity consuming schemes this category is discussed on the following page.

Our performance in 2022-23

In 2022-23, operating costs were broadly in line with the QCA’s recommended cost target. Further information is provided in the pricing submission proposal and associated scheme summaries.

Outlook for 2023-24

Bowen Broken Rivers Bulk Water Service Contract’s total operations budget in 2023-24 is broadly in line with the QCA target.

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. The escalation of insurance premiums has directly contributed to the rise in Sunwater's operating expenditure.

Sunwater's focus in 2023-24 is on performing operation and maintenance activities to a standard that ensures the scheme’s reliability and functionality while also meeting current asset maintenance standards and compliance obligations.

Table 5: Operating expenditure¹

	2022-23 actuals \$'000			2023-24 forecast \$'000		
	QCA	Sunwater ³	Δ to QCA	QCA	Sunwater ³	Δ to QCA
Insurance	\$190.1	\$214.4	12.8% ▲	\$194.5	\$258.3	32.8% ▲
Electricity	\$272.0	\$176.8	-35.0% ▼	\$275.2	\$222.8	-19.0% ▼
Operations & maintenance	\$556.5	\$508.8	-8.6% ▼	\$569.8	\$553.8	-2.8% ◀▶
Support costs	\$497.1	\$599.4	20.6% ▲	\$509.1	\$620.7	21.9% ▲
Total opex²	\$1,515.6	\$1,499.3	-1.1% ◀▶	\$1,548.5	\$1,655.6	6.9% ▲

▲	△	◀▶	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target <5%	5% below the QCA target	10% below the QCA target

1. Reflects the QCA’s 2020–2024 irrigation price investigation final recommendations. Excludes recreational facility costs.
2. From 1 July 2020, irrigation customers no longer contribute towards the cost of operating and maintaining recreational facilities. These costs have been excluded from the total operating expenditure.
3. Sunwater’s 2022-23 actual expenditure figures presented in this table are pre-adjustment and will differ from our Irrigation Pricing Proposal and its engagement materials. Sunwater’s 2023-24 figures align with our pricing submission, these figures may differ from the budget.

Electricity in focus

Sunwater continues to proactively manage the cost of electricity. In 2022-23, Sunwater undertook the following energy improvement initiatives in Bowen Broken Rivers:

- a review of our electricity tariff selections to ensure that we are using the most cost-effective tariffs. The review focused on the Gattonvale Off Stream Storage pump station, and there was no tariff change; however, the notified pricing published by the Queensland Competition Authority for 2022-23 estimated electricity cost increases of 10%-21%².
- Operational Electricity Dashboard Reporting, regularly monitoring key electricity metrics to identify efficiency opportunities².

Electricity

In 2023-24, 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 resulted in no tariff change, and we are using the most cost-effective tariff; however, the notified pricing published by the Queensland Competition Authority for 2023-24 estimated electricity cost increases between 14%-27%³
- desktop energy audit
- monitoring of asset energy operational performance.

Table 6 Electricity tariff arrangement

Pump Station	2023-24
Gattonvale Off Stream Storage	T44

1. *The regulated retail tariff is subject to change due to variations in customer water demand or operational requirements.*

² [Regulated retail electricity prices in regional Queensland 2022-23 \(qca.org.au\)](https://www.qca.org.au/regulation/regulated-retail-electricity-prices-in-regional-queensland-2022-23)

Electricity metrics

Table 7 sets out electricity usage and efficiency-related information for Bowen Broken Rivers.

Table 7: Electricity usage and efficiency-related metrics¹

Metric	2019-20	2020-21	2021-22	2022-23
Electricity usage (kWh) – pump station	593,506	549,203	619,538	321,605
Volume pumped (ML)	4911	3838	4,441	2,027
Actual electricity cost per ML (\$/ML pumped)	30.88	38.35	50.95	87.23
Average pump energy indicator ¹ (kWh/ML/per metre of head)	5.28	3.88	3.79	4.31

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 however, this service contract has large submersible pumps and there is no industry benchmark available for this type of asset in relation to the pump energy indicator. The closest in design to compare efficiency are sewage pump stations which are expected to operate between 3.7-5.5 kWh/ML/m, depending on the size and design of the pump stations.*

A granular level of energy and water data is required to monitor pump efficiency effectively. 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.

However, 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 frequent monitoring.

³ [Regulated retail electricity prices in regional Queensland 2023-24 \(qca.org.au\)](https://www.qca.org.au/regulation/regulated-retail-electricity-prices-in-regional-queensland-2023-24)

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

Renewals discussion

Sunwater recovers expenditure required to renew (maintain the current level of service an asset provides) its assets via a renewals annuity. The annuity treats all renewals related expenditure as an expense (i.e., not capital) and amortises a multi-year expenditure forecast (30-years) such that the amount customers pay is smoothed, relative to the actual expenditure profile. Negative opening balances reflect expenditure incurred by Sunwater which has not yet been recovered via the annuity contribution amount, while positive opening balances reflect expenditure which has been pre-recovered via the annuity contribution amount. Forecast annuity balances, and the impacts of budgeted spend, are shown in Table 8 below.

The QCA and Sunwater closing balances differ due to differences in the expenditure profile allowed by the QCA in its 2020-24 final recommendations and actual expenditure incurred by Sunwater in 2022-23 and what we expect to spend in 2023-24.

Annuity-funded expenditure includes funds for planned corrective maintenance (PCM), as well as large, one-off operations activities. Activities include monitoring of the asset condition to inform when an asset needs to be refurbished or replaced under the PCM program.

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

Our performance in 2022-23

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.

Further explanation of our performance is provided in the pricing submission and scheme summaries.

Project level cost variances

Table 9 provides a comparison of the annuity-funded projects planned for 2022-23 and the actual projects undertaken, together with justification for the variances.

Outlook

Details of the major annuity-funded projects planned for the 2023-24 and 2024-25 period are set out in Table 10.

Table 8: Annuity and non-annuity funded expenditure and roll forward¹

Annuity funded expenditure (and roll forward)										
	2022-23 actuals \$'000					2023-24 forecast \$'000				
		QCA ²		Sunwater ⁴	Δ to QCA		QCA ²		Sunwater ⁴	Δ to QCA
Opening balance	<i>O</i>	\$(4,548.4)	➔	\$(5,018.9)	10.3% ▲		\$(4,078.1)	➔	\$(4,614.6)	13.2% ▲
Annuity funded expenditure	<i>E</i>	\$(185.3)	➔	\$(230.7)	24.5% ▲		\$(199.2)	➔	\$(269.1)	35.1% ▲
Annuity revenue ³	<i>R</i>	\$854.4	➔	\$854.4	- -		\$865.6	➔	\$865.6	- -
Interest	<i>I</i>	\$(198.9)	➔	\$(219.4)	- -		\$(178.3)	➔	\$(201.8)	- -
Closing balance	<i>C</i>	\$(4,078.1)	➔	\$(4,614.6)	13.2% ▲		\$(3,590.0)	➔	\$(4,219.8)	17.5% ▲
<i>C = (O + E + R + I)</i>										
Other expenditure (not part of prices)										
Dam improvement program		-		\$0.0	-		-		\$0.0	-
Recreational facility projects ¹		-		\$392.6	-		-		\$0.0	-
Metered offtakes and dividend reinvestment		-		\$0.0	-		-		\$0.0	-

▲	△	◀▶	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target <5%	5% below the QCA target	10% below the QCA target

- Forecast annuity-funded costs from 2020-21 exclude recreational facility projects.
- Reflects the QCA's 2020–2024 irrigation price investigation final recommendations.
- The annuity contribution is included in the prices paid by bulk water and distribution customers. From 2020-21 to 2023-24, the annuity contribution is based on the QCA's irrigation price investigation 2020–2024 final recommendations.
- Sunwater's 2022-23 actual expenditure figures presented in this table are pre-adjustment and will differ from our Irrigation Pricing Proposal and its engagement materials. Sunwater's 2023-24 figures align with our pricing submission, these figures may differ from the budget.

Comparison of forecast and actual annuity-funded projects for 2022-23

The below table sets out the major annuity-funded projects planned for Bowen Broken Rivers in 2022-23⁴ and the actual projects undertaken.

Table 9 Comparison of forecast and actual annuity-funded projects for 2022-23

Facility	Activity description	Forecast \$'000	Actual \$'000	Commentary
Gattonvale pump station	Refurbish – pump unit 3 pump based on known asset condition and age.	81	0	This project was unable to be completed due to high water levels.
Bowen River Weir	Refurbish – inlet trash screens (repaint and repair) based on known asset condition and age.	60	33	The original budget was insufficient to cover the scope of work required.
Eungella Dam	Refurbish – regulating valve 1 based on known asset condition and age.	60	0	This work was incorporated into the Eungella Dam regulating valve refurbishment below.
Eungella Dam	Refurbish – regulating valve 2 based on known asset condition and age.	60	74	This project will now be delivered over 2 years and the total forecast is \$120k.
Eungella Dam	Inspect – spillway bridge based on the Department of Transport and Main Roads' Inspection Manual.	38	31	This project was completed broadly in line with the budget.
Gattonvale pump station	Refurbish – pump unit 1 non return valve.	38	41	This project was completed broadly in line with the budget.
Scheme	Non-scheduled works.	-	52	This expenditure relates to: <ul style="list-style-type: none"> arc flash 1 was completed to understand and assess the arc flash assets in the Service Contract from a risk category rating perspective. This is a multi-year project required to comply with updated arc flash standards and will lead into secondary program (\$59k) flood damage inspections completed by the operations team (\$9k) an invoicing change for a comprehensive risk assessment (-\$16k).
2022-23 Total		336	231	

⁴ Based on information extracted from Sunwater's systems in mid-2023. See the 2022-23 S&PP at www.sunwater.com.au/schemes/Bowen-Broken-Rivers/

Annuity-funded projects for 2023-24 and 2024-25

The below table sets out Sunwater’s currently planned annuity-funded projects for 2023-24 and 2024-25⁵ 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. The data in Table 10 is presented at a granular level and may not align with the overarching program names in our pricing submission.

Table 10 Forecast annuity-funded projects planned for 2023-24 and 2024-25

Year	Facility	Activity description	Forecast \$'000
2023-24	Gattonvale pump station	Refurbish – pump unit 2 pump based on known asset condition and age.	84
	Bowen River Weir	Refurbish – right and left-hand penstock gates, frames and actuators based on known asset condition and age.	73
	Eungella Dam	Refurbish – inlet trash screen (blast, paint and new bearings and seals) based on known asset condition and age.	43
	Bowen River Weir	Study – options analysis for replacement fishway supervisory control and data acquisition (SCADA) computers and software.	23
	Eungella Dam	Investigate – spillway sub surface drainage to mitigate known safety risk.	23
	Eungella Dam	Study – investigate site emergency accommodation requirements.	12
	Eungella Dam	Inspect – spillway bridge based on the Department of Transport and Main Roads’ Inspection Manual.	12
	2023-24 Total		269
2024-25	Eungella Dam	Study – as low as reasonably possible (ALARP) investigation to evaluate dam safety risk.	138
	Scheme	Arc Flash Program.	125
	Eungella Dam	Study – dam safety comprehensive risk assessment (CRA).	115
	Gattonvale pump station	Replace – flow meter based on known asset condition and age.	47
	Eungella Dam	Refurbish – pump No.1 based on known asset condition and age.	14
	Bowen River Weir	Replace – fishway supervisory control and data acquisition (SCADA) computers and software.	13
	Gattonvale pump station	Replace – supervisory control and data acquisition (SCADA) computers and software.	13
	2024-25 Total		465

⁵ The project forecasts provided in this table align with our pricing submission. It is important to acknowledge that these projects are inherently dynamic and susceptible to changes influenced by various factors.