



Final Service and Performance Plan 2023

Dawson Valley Bulk Water Service Contract

20 December 2023

Contents

At a glance.....	2
Introduction	4
Delivering services to our customers	5
Cost of delivering services—Operating expenditure	7
Electricity in focus	8
Cost of delivering services—Annuity and non-annuity funded expenditure	10
Comparison of forecast and actual annuity-funded projects for 2022-23 .	12
Annuity-funded projects for 2023-24 and 2024-25.....	14

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

Most customers in this scheme are irrigators who grow cotton and a range of opportunity and horticultural crops such as wheat, barley, oats, maize, mung beans, soybeans, sunflowers, and sorghum. Water is also supplied to the towns of Cracow, Theodore, Moura, Baralaba, and Duaringa, and to industrial users such as a gold mine, coal mines and a nitrates plant.

Our irrigation charges

Table 1 - Irrigation charges for 2023-24

<div> <div>\$</div> 2023-24 Charges by tariff group </div>							
Dawson Valley		Irrigation charges ²		Cost-reflective charge ³		Δ to cost reflective	
Bulk Water	Part A	\$19.23	\$/ML	\$23.13	\$/ML	-\$3.90	\$/ML
Medium Priority	Part B	\$1.44	\$/ML	\$1.73	\$/ML	-\$0.29	\$/ML
Bulk Water	Part A	\$45.19	\$/ML	\$120.99	\$/ML	-\$75.8	\$/ML
High Priority	Part B	\$1.44	\$/ML	\$1.73	\$/ML	-\$0.29	\$/ML
Bulk Water – Local	Part A	\$19.04	\$/ML	\$23.13	\$/ML	-\$4.09	\$/ML
Management Supply	Part B	\$1.44	\$/ML	\$1.73	\$/ML	-\$0.29	\$/ML
Medium Priority							
Bulk Water – Local	Part A	\$45.19	\$/ML	\$120.99	\$/ML	-\$75.8	\$/ML
Management Supply	Part B	\$1.44	\$/ML	\$1.73	\$/ML	-\$0.29	\$/ML
High Priority							

1. This table includes bulk water charges only. Distribution charges are set by Theodore Water Pty Ltd.
2. Includes the Queensland Government's 15 per cent discount for irrigation customers. Refer to www.rdmw.qld.gov.au for more information.
3. 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

<div> <div>Operations and maintenance costs</div> </div>				
		QCA \$'000	Sunwater \$'000	Δ to QCA
Actual	2022-23	\$1,050.6	\$1,145.2	9.0% ▲
Forecast	2023-24	\$1,075.3	\$1,243.6	15.7% ▲

<div> <div>Expenditure funded by the annuity</div> </div>				
		QCA \$'000	Sunwater \$'000	Δ to QCA
Actual	2022-23	\$489.2	\$584.3	19.5% ▲
Forecast	2023-24	\$665.0	\$811.4	22.0% ▲
Actual + Forecast	Σ Price path	\$1,908.3	\$2,360.6	23.7% ▲

▲	△	◀▶	▽	▼
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

<div> <div>Water delivered</div> </div>	Total		To irrigators		
	2021-22	2022-23	2021-22	2022-23	
	29,277	35,861	25,067	31,930	
	ML	ML	ML	ML	
	22.5%	27.4%	22.5%	27.4%	YoY change by group

▲	◀▶	▼
5%	0%	-5%

<div> <div>Service targets</div> </div>	Exceedances		Notes
	2021-22	2022-23	
	33	0	Unplanned shutdowns (duration) and maximum number of interruptions were not met.
			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 Dawson Valley 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.

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

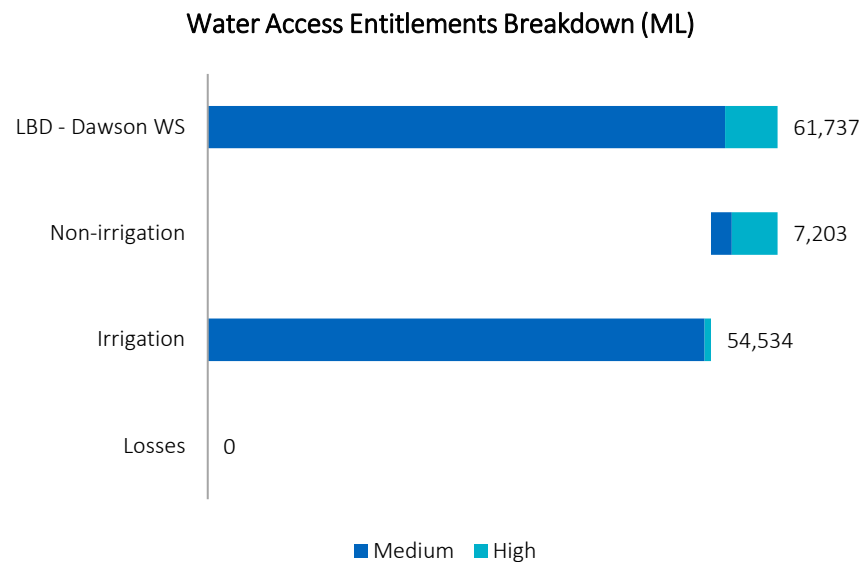
¹ All financial figures reported in this document are in nominal dollars, i.e. dollars of the day. Figures may not sum due to rounding.

Delivering services to our customers

Entitlements

The water allocations for each customer segment are shown below.

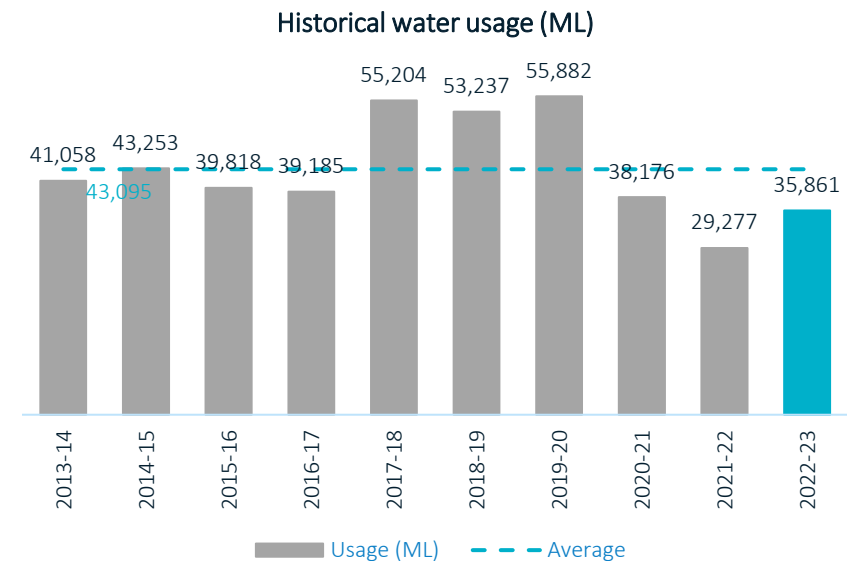
Figure 2 - Water access entitlements (as of 30 June 2023)



Historical water usage

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

Figure 1 - Historical water usage for the past 10-years



- Usage in 2022-23 was below the level of the 10-year average of 43,095 ML.
- Part B prices for the current period were set using a 20-year average of 36,951 ML.

Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for Dawson Valley. 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	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	6	0
	Unplanned shutdowns outside Peak Demand Period	5 working days			
Maximum number of interruptions ²	Planned or unplanned interruptions per water year	6	0	27	0

- This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.*
- This is the total number of bulk water customers in the scheme that have been interrupted in excess of the target.*

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%

- This target measures the percentage of 13 15 89 calls that are answered within 60 seconds.*
- 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 Dawson Valley.

Table 4 - Key infrastructure

Asset	Description	Total storage capacity (ML)
Glebe Weir	Concrete and steel sheet pile structure with an ogee shaped central crest.	17,700
Gyranda Weir	Cascading steel sheet pile structure. Also includes a nearby anabranh weir.	16,500
Neville Hewitt Weir	Concrete structure. Also includes anabranh weir and a hydraulically operated fish lock.	10,646
Moura Weir	Timber structure reinforced with steel piling and concrete buttresses. Includes a vertical slot fishway.	7700
Orange Creek Weir	Concrete reinforced timber piled structure. Also includes a nearby anabranh weir.	6140
Theodore Weir	Concrete structure. Also includes a timber pile anabranh weir.	4760
Moura Off-stream Storage	Includes a pump station comprising two 86 ML/day submersible pumps. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	2820

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 Dawson Valley.

As Dawson Valley 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 higher than the QCA's recommend cost target. Further information is provided in the pricing submission proposal and associated scheme summaries.

Outlook for 2023-24

Dawson Valley Bulk Water Service Contract's total operations budget in 2023-24 is 15.7 per cent above the QCA's recommended cost 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 operations and maintenance activities to a standard that ensures the scheme's reliability and functionality for delivering water to our customers. Maintenance works will focus on providing long term integrity and safe operation of our assets.

Table 5 - Operating expenditure¹

Operations and maintenance costs - by sub-category						
	2022-23 actuals \$'000			2023-24 forecast \$'000		
	QCA ²	Sunwater ³	Δ to QCA	QCA ²	Sunwater ³	Δ to QCA
Insurance	\$158.5	\$194.1	22.5% ▲	\$162.1	\$233.9	44.3% ▲
Electricity	\$55.5	\$10.6	-80.9% ▼	\$56.2	\$59.4	5.7% △
Operations & maintenance	\$322.1	\$371.6	15.4% ▲	\$330.0	\$361.2	9.4% △
Support costs	\$514.5	\$569.0	10.6% ▲	\$526.9	\$589.2	11.8% ▲
Total opex²	\$1,050.6	\$1,145.2	9.0% △	\$1,075.3	\$1,243.6	15.7% ▲
▲	△	◀▶	▽	▼		
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 Dawson Valley:

- a review of our electricity tariff selections, to ensure that we are using the most cost-effective tariffs. The review focused on the Moura Off Stream Storage pump station and was based on three years of historical interval data, providing more usage and demand data accuracy. A tariff change has resulted in an average increase of costs from 22.71c/kWh to 23.43c/kWh. If the pump station remained on the existing tariff arrangement, the average cost would have been 25.57c/kWh.

The notified pricing published by the Queensland Competition Authority for 2022-23 estimated electricity cost increases between 10% -21%².

- Continue with Operational Electricity Dashboard Reporting, regularly monitoring key electricity metrics to identify efficiency opportunities.

Outlook for 2023-24

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 based on four years of historical interval data. A tariff change has resulted in an average cost increase from 23.43c/kWh to 26.89c/kWh. If the pump station remained on the existing tariff arrangement the average cost would have been 33.55c/kWh.

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)

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 - Tariff Electricity Arrangement

Pump Station	2023-24
Moura Off Stream Storage	T22C

The regulated retail tariff is subject to change with variations in customer water demand and operational requirements.

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)

Electricity metrics

Table 7 sets out electricity usage and efficiency-related information for the Dawson Valley Bulk Water Service Contract.

Table 7 - Electricity usage and efficiency-related metrics

Metric	2019-20	2020-21	2021-22	2022-23
Electricity usage (kWh) – pump stations	287,240	282,041	282,046	29,033
Volume pumped (ML)	2,488	2,159	2,790	221
Actual electricity cost per ML (\$/ML pumped)	29.92	32.02	23.79	47.94
Average pump energy indicator ¹ (kWh/ML/per metre of head)	3.04	3.43	3.39	3.45

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 in early 2020 to capture energy consumption at a granular level, Sunwater is now able to more frequently monitor our performance against this metric.

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 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.

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 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>	\$2,353.6	➔	\$2,144.2	-8.9%	▼	\$2,906.2	➔	\$2,592.5	-10.8%	▼
Annuity funded expenditure	<i>E</i>	\$(489.2)	➔	\$(584.3)	19.5%	▲	\$(665.0)	➔	\$(811.4)	22.0%	▲
Annuity revenue ³	<i>R</i>	\$938.9	➔	\$938.9			\$956.6	➔	\$956.6		
Interest	<i>I</i>	\$102.9	➔	\$93.7			\$127.1	➔	\$113.4		
Closing balance	<i>C</i>	\$2,906.2	➔	\$2,592.5	-10.8%	▼	\$3,324.9	➔	\$2,851.1	-14.2%	▼
<i>C = (O + E + R + I)</i>											
Other expenditure (not part of prices)											
Dam improvement program		-		\$0.0	-		-		\$0.0	-	
Recreational facility projects ¹		-		\$0.0	-		-		\$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

1. Forecast annuity-funded costs from 2020-21 exclude recreational facility projects.
2. Reflects the QCA's 2020–2024 irrigation price investigation final recommendations.
3. 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.
4. 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 the Dawson Valley Bulk Water Service Contract in 2022-23⁴ and the actual projects undertaken.

Facility	Activity description		Forecast \$'000	Actual \$'000	Commentary
Gyranda Weir	Replace – corroded access ladders, handrails, and platforms at the intake tower.	145	44		Platform and ladders fabricated ready for installation. Storage to be empty for safe access into Gyranda inlet tower.
Moura Weir	Replace – control system hardware and software and telemetry equipment.	119	65		This is a multi-year project and work will continue in FY24.
Dawson Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	103	92		This project was completed within budget.
Orange Creek Weir	Replace – design, fabricate and install new regulating gate/valve.	119	136		This project was completed broadly in line with the budget.
Orange Creek Weir	Refurbish – right bank downstream abutment and bank protection works.	68	64		This is a multi-year project and work will continue in FY24. This project has been combined with the refurbishment the left bank abutment noted below.
Orange Creek Weir	Refurbish – left bank downstream abutment and bank protection works.	36	0		Please refer above.
Moura Off-stream Storage	Replace – pumps 1 and 2 motor protection relays.	48	5		This is a multi-year project and work will continue in FY24.
Theodore Weir	Repair – right bank abutment and stabilise retaining rock wall based on known asset condition and age.	31	24		This is a multi-year project and work will continue in FY24. Repair designs completed
Multiple	Various projects.	54	71		<p>This expenditure relates to the following projects:</p> <ul style="list-style-type: none"> Replacing gauging equipment at Dawson River could not be completed due to the weather and river inflows. Work will continue in FY24 (\$23k under budget) The options analysis for replacing the corroded sheet pile at Moura Off stream Storage Pumpstation was inaccurately estimated as a

⁴ Based on information extracted from Sunwater's systems in mid-2023. See the 2023 S&PP at www.sunwater.com.au/schemes/Dawson-Valley/

				<p>site visit was not conducted. (\$18K higher than estimated)</p> <p>A carryover project from 2022 to refurbish the inlet and outlet trash racks at Gylanda Weir. The forecast was split over multiple years (\$10K higher than budget for FY23)</p>
Multiple	Non-scheduled projects	-	126	<p>This expenditure relates to</p> <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 (\$47k) <p>refurbishing the dissipater at Neville Hewitt Weir (\$35k). Due persistent river events impacting the delivery of this project, work is completed.</p>
2022-23 Total		723	584	

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. Please note that 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 9 Forecast annuity-funded projects planned for 2023-24 and 2024-25

Year	Facility	Activity description	Forecast \$'000
723	Theodore Weir	Refurbish – left bank upstream and downstream protection works based on dam safety inspection report.	262
	Moura Weir	Replace – control system hardware and software and telemetry equipment.	135
	Orange Creek Weir	Refurbish – right bank downstream abutment and bank protection works.	115
	Dawson Scheme	Replace – customer meters according to AS4747 to meet regulatory compliance.	100
	Moura Off-stream Storage PSTN	Study - Pumpstation structural integrity based on known asset condition	69
	Dawson Weirs	Study - Investigate Business case for remote operation of outlet works to reduce risks	29
	Moura Off-stream Storage	Refurbish – embankment access road based on asset condition and age.	29
	Scheme	Refurbish – trash racks, replacement of gauging equipment based on asset condition and age.	53
	Moura Off-stream Storage	Study – internal inspection of rising main pipe condition.	20
	2023-24 Total		811
2024-25	Scheme	Study – arc flash risk assessment to identify arc flash hazards.	209
	Moura Off-stream Storage	Study – as low as reasonably possible (ALARP) investigation to evaluate dam safety risk.	138
	Dawson Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	93
	Moura Off-stream Storage	Replace – seven rising main pipeline air valves based on known asset condition and age.	86
	Gyranda Weir	Replace – three electric actuators based on known asset condition and age.	83
	Moura Weir	Refurbish – left bank abutment and left and right abutment protection works based on asset condition and age.	59
	Gyranda Weir	Refurbish – reinstate pressure relief holes in sheet pile and undertake thickness testing based on known asset condition and age.	54
	Orange Creek Weir	Permanently decommission low level outlet works based on known asset condition and age.	29

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.

Year	Facility	Activity description	Forecast \$'000
	Orange Creek Weir	Study – investigate and assess wall leakage.	23
	Neville Hewitt Weir & Moura Off-stream Storage	Replace – supervisory control and data acquisition (SCADA) system.	26
	Gyranda Weir	Replace – three buoys based on known condition and age.	12
	Glebe Weir	Refurbish – reinstate pressure relief holes in sheet pile and undertake thickness testing based on known asset condition and age.	12
	Glebe Weir	Refurbish – rock mattress protection system on both banks.	18
	Theodore Weir	Refurbish – clean and reinstate pressure relief holes based on known asset condition and age.	18
	2024-25 Total		860