



# Final Service and Performance Plan

## 2022/23

Dawson Valley Bulk Water Service Contract


11 August 2022

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# At a glance

## Our performance in 2020/21

 **Operating costs:**  
\$1.09 million (8.0% more than QCA target)

Key drivers of cost variance:

- electricity
- insurance
- corrective maintenance.


 **Annuity-funded costs:**  
\$0.46 million (108.2% more than QCA target)

Key drivers of cost variance:

- additional costs incurred to upgrade customer meters in line with Australian Standards
- commencement of an arc flash study, which was not part of the 2020/21 program of works assessed by the QCA.


 **Total water deliveries:**  
38,176 ML<sup>1</sup>

Water delivered to irrigators: 33,532 ML

 **Service targets: Met**


No exceptions

## Outlook for 2022/23

 **Forecast operating costs:**  
\$1.17 million

Significant areas of expenditure:

- insurance (\$0.22 million)
- operations (\$0.67 million)
- preventative maintenance (\$0.13 million).

 **Forecast annuity-funded costs:**  
\$0.72 million

Key projects planned:

- replace corroded access ladders, handrails, and platforms at the Gylanda Weir intake tower (\$0.15 million)
- replace control system hardware and software and telemetry equipment at Moura Weir (\$0.12 million).

<sup>1</sup> 1 October 2019 to 30 September 2020

# 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 Dawson Valley Bulk Water Service Contract is to:

- present to customers Sunwater’s projected costs<sup>2</sup> 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 that refurbishment and corrective work identified through our annual and five yearly comprehensive inspections at the scheme’s weirs and off stream storage are implemented safely, timely and efficiently.

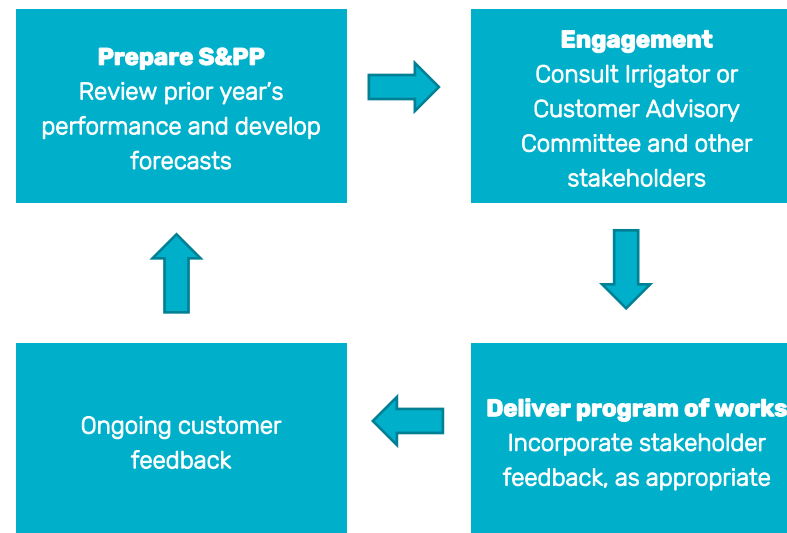
In addition to this S&PP, Sunwater has published an information sheet which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The information sheet is available at:

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

<sup>2</sup> All financial figures reported in this document are in nominal dollars, i.e. dollars of the day. Figures may not sum due to rounding.

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

Figure 1: Customer consultation and S&PPs



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

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

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

# Delivering services to our customers

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

## Our customers

Most customers in this scheme are irrigators who grow cotton and a range of opportunity crops including cereal, fodder, cereal, 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.

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 priority water allocations (ML)	Medium-A priority water allocations (ML)	Medium priority water allocations (ML)	Total water deliveries 2020/21 <sup>1</sup> (ML)
Irrigation	54,392	620	19,276	34,496	33,532
Urban	2281	2026	0	255	1311
Industrial	4927	2959	0	1968	3324
Sunwater	137	74	63	0	9
<b>Total</b>	<b>61,737</b>	<b>5679</b>	<b>19,339</b>	<b>36,719</b>	<b>38,176</b>

1. Represents water deliveries during the 1 October 2019 to 30 September 2020 water year.

## Irrigation charges

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

Table 2: Irrigation charges for 2022/23<sup>1</sup>

Tariff group	Product	2022/23 (\$/ML) <sup>2</sup>	QCA cost-reflective (\$/ML) <sup>3</sup>
Bulk Water Medium Priority	Allocation Charge – Part A	18.81	22.62
	Allocation Water – Part B	1.41	1.69
Bulk Water High Priority	Allocation Charge – Part A	42.13	118.34
	Allocation Water – Part B	1.41	1.69
Bulk Water – Local Management Supply Medium Priority	Allocation Charge – Part A	16.56	22.62
	Allocation Water – Part B	1.41	1.69
Bulk Water – Local Management Supply High Priority	Allocation Charge – Part A	42.13	118.34
	Allocation Water – Part B	1.41	1.69

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](http://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. Charges do not allow for any returns on existing assets.

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

## Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for the Dawson Valley 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	2 weeks	0	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0	0
Unplanned shutdowns – duration <sup>1</sup>	Unplanned shutdowns during Peak Demand Period	48 hours	0	0	0
	Unplanned shutdowns outside Peak Demand Period	5 working days			
Maximum number of interruptions <sup>2</sup>	Planned or unplanned interruptions per water year	6	0	0	0

1. This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.
2. 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 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 <sup>1</sup>	80.00%	90.93%
Requests actioned within Service Level Agreement (SLA) timeframes <sup>2</sup>	> 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 Dawson Valley.

Table 5: 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 anabranch weir.	16,500
Neville Hewitt Weir	Concrete structure. Also includes anabranch 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 anabranch weir.	6140
Theodore Weir	Concrete structure. Also includes a timber pile anabranch 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

# Financial summary—Revenue and expenditure

A high-level summary of the budgeted financial performance of the Dawson 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.

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 Dawson Valley 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)

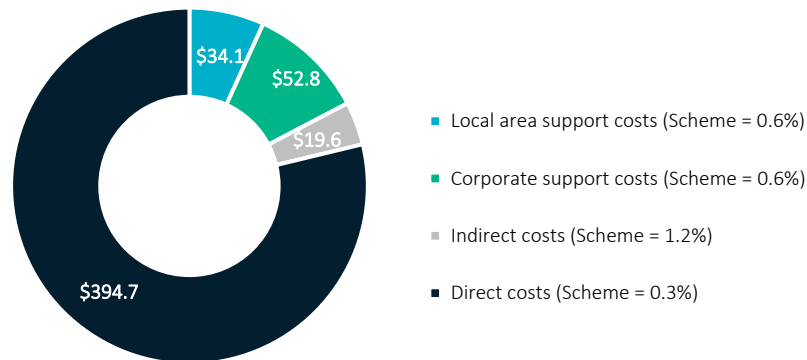


Table 6: Service contract financial summary

Dawson Valley 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	871.8	994.5	940.1	1187.7	1041.1
Community Service Obligation	-	-	371.6	-	-
Industrial <sup>1</sup>	1898.8	2033.6	1950.7	1909.9	1909.6
Urban <sup>1</sup>	692.8	710.9	715.8	724.4	724.4
Revenue transfers <sup>2</sup>	171.3	-	-	-	-
Drainage	-	-	-	-	-
Other	1.5	-	6.7	-	-
<b>Revenue total</b>	<b>3636.2</b>	<b>3739.0</b>	<b>3984.8</b>	<b>3822.0</b>	<b>3675.1</b>
Less – Operating expenditure	810.0	938.4	1085.2	1158.0	1167.1
Less					
Annuity-funded	30.3	204.0	455.7	501.8	723.4
Non-annuity funded	-	-	-	-	-
<b>Surplus (deficit)</b>	<b>2795.8</b>	<b>2596.6</b>	<b>2444.0</b>	<b>2162.3</b>	<b>1784.6</b>

- 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 distribution system. Since the transfer of the distribution system to Theodore Water Pty Ltd on 30 September 2018, Theodore Water has been invoiced directly for its contribution to the cost of the bulk water service. Therefore, this revenue is now part of “Irrigation” revenue.

## 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 Dawson Valley 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 higher than the QCA’s recommend cost target. This variance was largely due to higher electricity, insurance, and corrective maintenance costs. The increase in corrective maintenance costs was driven by higher labour costs (and associated non-direct costs) resulting from an increase in the corrective maintenance work required to be undertaken in the scheme.

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

Dawson Valley 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 <sup>2</sup>	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'000 <sup>2</sup>	Sunwater Forecast \$'000	QCA Target \$'000 <sup>2</sup>	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operations	626.8	735.8	810.6	865.2	54.7	888.5	827.7	958.2	847.1	999.2	1037.8	1076.0	1123.2
Electricity	34.3	74.5	53.9	69.1	15.3	51.0	54.7	71.0	55.5	73.0	75.0	77.0	79.1
Insurance	120.6	137.8	151.9	183.3	31.4	243.8	154.9	215.8	158.5	232.8	251.2	271.0	292.3
Operations	471.9	523.6	604.8	612.8	8.0	593.7	618.0	671.4	633.1	693.4	711.7	728.0	751.7
Preventative maintenance	176.5	152.1	143.9	132.0	(11.9)	207.9	147.0	125.1	150.6	129.0	132.6	135.9	140.3
Corrective maintenance	6.8	50.5	50.5	88.0	37.5	61.5	51.6	83.7	52.9	86.2	88.6	90.9	93.6
<b>Operating costs total</b>	<b>810.0</b>	<b>938.4</b>	<b>1005.0</b>	<b>1085.2</b>	<b>80.2</b>	<b>1158.0</b>	<b>1026.3</b>	<b>1167.1</b>	<b>1050.6</b>	<b>1214.4</b>	<b>1258.9</b>	<b>1302.7</b>	<b>1357.1</b>
Recreational facility costs <sup>3</sup>				-		-		-		-	-	-	-
<b>Operating costs total (incl. recreational facility costs)</b>	<b>810.0</b>	<b>938.4</b>		<b>1085.2</b>		<b>1158.0</b>		<b>1167.1</b>		<b>1214.4</b>	<b>1258.9</b>	<b>1302.7</b>	<b>1357.1</b>

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 Dawson Valley 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 and did not result in any tariff changes.
- commencement of Operational Electricity Dashboard Reporting with key electricity metrics monitored on a continual basis to identify efficiency opportunities.<sup>3</sup>

## Outlook for 2022/23 Operations

Dawson Valley Bulk Water Service Contract's total operations budget in 2022/23 is 13.1 per cent above the QCA's recommended cost target mainly due to higher insurance and electricity 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 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 Dawson Valley Bulk Water Service Contract are currently expected to be 16.9 per cent below the QCA's recommended cost target. Nevertheless, Sunwater's combined preventative and corrective maintenance forecasts are expected to be broadly similar to the combined QCA targets for these cost categories.

### Corrective maintenance

In 2022/23, Sunwater anticipates spending \$83.7k on corrective maintenance in the Dawson Valley Bulk Water Service Contract. This is 58.4 per cent above the QCA's recommended cost target. However, as noted above, the combined preventative and corrective maintenance forecasts are in line with the QCA's allowances. Sunwater will aim to keep actual corrective maintenance costs to a minimum, while ensuring all assets can perform suitably.

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<sup>3</sup> Some measuring points are not currently available at all pump stations. Sunwater is working towards capturing this information in the future.



## Electricity metrics

Table 8 sets out electricity usage and efficiency-related information for the Dawson Valley 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 stations	210,181	118,369	287,240	282,041
Volume pumped (ML)	1505	800	2488	2159
Actual electricity cost per ML (\$/ML pumped)	41.14	42.92	29.92	32.02
Average pump energy indicator <sup>1</sup> (kWh/ML/per metre of head)	3.68	3.89	3.04	3.43

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 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—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<sup>1,2</sup>

Dawson Valley 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 <sup>3</sup>	Sunwater Actual \$'000	QCA Target \$'000 <sup>4</sup>	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'000 <sup>4</sup>	Sunwater Forecast \$'000	QCA Target \$'000 <sup>4</sup>	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
<b>Annuity-funded</b>													
Operations	-	-	-	-	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Planned corrective maintenance	43.1	204.0	218.8	455.7	236.8	501.8	535.3	723.4	489.2	830.1	797.1	987.9	1995.3
Unplanned corrective maintenance	(12.7)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Annuity-funded total</b>	<b>30.3</b>	<b>204.0</b>	<b>218.8</b>	<b>455.7</b>	<b>236.8</b>	<b>501.8</b>	<b>535.3</b>	<b>723.4</b>	<b>489.2</b>	<b>830.1</b>	<b>797.1</b>	<b>987.9</b>	<b>1995.3</b>
<b>Non-annuity funded</b>													
Dam Improvement Program	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreational facility projects	-	-	-	-	-	-	-	-	-	-	13.3	7.6	21.3
Metered offtakes and dividend reinvestment	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non-annuity total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13.3</b>	<b>7.6</b>	<b>21.3</b>

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 higher-than-expected costs associated with various projects including:

- upgrading customer meters (\$60.6k more than the QCA target), due to additional work required during meter installation to comply with Australian Standard (AS) 4747
- the comprehensive risk assessment input studies at Moura Off-stream Storage (\$33.9k above).

Additionally, Sunwater commenced an arc flash study (\$38.5k), which was not part of program of works assessed by the QCA.

### 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.

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<sup>4</sup> See pages 58 to 60, [www.qca.org.au/wp-content/uploads/2020/02/irrigation-price-review-part-b-sunwater-final-report.pdf](http://www.qca.org.au/wp-content/uploads/2020/02/irrigation-price-review-part-b-sunwater-final-report.pdf)

## 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 replace access ladders, handrails, and platforms at the Gylanda Weir intake tower and replace control system hardware, software, and telemetry at Moura Weir.

### Asset management and planning improvements

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

- improve our predictive maintenance and asset condition reporting arrangements to better inform the timing of asset replacement
- review our cost estimation approach and ensure that asset values are based on modern equivalent replacement values where appropriate
- develop transparent guidelines for options analyses.<sup>4</sup>

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 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

Dawson Valley 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 <sup>1</sup>	1244.4	1333.8	1246.9	1715.0	2196.9	2508.5	2744.7	2746.5	2589.0
Spend <sup>2</sup>	(30.3)	(204.0)	(455.7)	(501.8)	(723.4)	(830.1)	(797.1)	(987.9)	(1995.3)
Insurance proceeds receipts (if applicable)									
Prior year	-	-	-	-	-	-	-	-	-
Current year	9.7	-	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	16.8	17.2	869.2	908.7	938.9	956.6	678.9	710.3	739.7
Interest/financing costs	93.2	99.9	54.5	75.0	96.1	109.7	120.0	120.1	113.2
<b>Sunwater – Closing balance</b>	<b>1333.8</b>	<b>1246.9</b>	<b>1715.0</b>	<b>2196.9</b>	<b>2508.5</b>	<b>2744.7</b>	<b>2746.5</b>	<b>2589.0</b>	<b>1446.7</b>
<b>QCA – Closing balance</b>	<b>1333.8</b>	<b>1246.8</b>	<b>1951.7</b>	<b>2410.5</b>	<b>2965.6</b>	<b>3386.9</b>			
Difference	-	0.1	(236.7)	(213.6)	(457.1)	(642.1)			

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. Water use is shown for the water year, 1 October to 30 September.

Year	Usage (ML)
2010/11	19,253
2011/12	17,662
2012/13	29,810
2013/14	41,058
2014/15	43,253
2015/16	39,818
2016/17	39,185
2017/18	55,204
2018/19	53,237
2019/20	55,882
2020/21	38,176
<b>19-year historical average</b>	<b>38,468</b>

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

Dawson Valley Bulk Water Service Contract	2018/19 Sunwater / QCA Actual \$'000	2019/20 Sunwater Actual \$'000	2020/21 QCA Target \$'000	2020/21 Sunwater Actual \$'000	Variance \$'000	2021/22 Sunwater Forecast \$'000	2021/22 QCA Target \$'000	2022/23 Sunwater Forecast \$'000	2022/23 QCA Target \$'000	2023/24 Sunwater Forecast \$'000	2024/25 Sunwater Forecast \$'000	2025/26 Sunwater Forecast \$'000	2026/27 Sunwater Forecast \$'000
<b>Operating costs</b>													
Operations	626.8	735.8	810.6	865.2	54.7	888.5	827.7	958.2	847.1	999.2	1037.8	1076.0	1123.2
Labour	95.5	128.0	161.5	146.9	(14.6)	135.9	165.2	167.6	169.4	172.6	177.8	183.1	188.6
Contractors	39.5	47.1	12.3	36.3	24.0	36.5	12.5	30.0	12.8	30.8	31.7	32.5	33.4
Materials	0.4	1.9	1.0	0.1	(0.9)	5.0	1.1	5.0	1.1	5.1	5.3	5.4	5.6
Electricity	34.3	74.5	53.9	69.1	15.3	51.0	54.7	71.0	55.5	73.0	75.0	77.0	79.1
Insurance	120.6	137.8	151.9	183.3	31.4	243.8	154.9	215.8	158.5	232.8	251.2	271.0	292.3
Other	79.1	93.0	41.1	71.0	29.9	62.2	41.9	63.5	42.9	64.1	66.7	67.4	68.1
Local area support costs	84.0	69.2	78.0	81.3	3.3	89.0	79.7	109.1	81.6	112.3	115.7	119.2	122.7
Corporate support costs	91.6	98.7	124.8	138.6	13.8	129.1	127.5	159.2	130.6	164.0	168.9	174.0	179.2
Indirect costs	81.8	85.6	186.1	138.5	(47.6)	136.1	190.1	137.1	194.7	144.4	145.6	146.3	154.0
Preventative maintenance	176.5	152.1	143.9	132.0	(11.9)	207.9	147.0	125.1	150.6	129.0	132.6	135.9	140.3
Labour	50.8	40.9	41.4	32.2	(9.2)	50.3	42.4	25.9	43.5	26.7	27.5	28.3	29.1
Contractors	12.9	21.9	7.2	13.9	6.6	25.0	7.4	25.0	7.6	25.7	26.4	27.1	27.9
Materials	1.8	3.0	2.0	6.6	4.7	5.0	2.0	5.0	2.1	5.1	5.3	5.4	5.6
Other	1.1	6.3	11.6	2.8	(8.8)	13.0	11.9	13.0	12.2	13.4	13.7	14.1	14.5
Local area support costs	46.4	21.6	20.0	19.7	(0.3)	32.7	20.4	16.8	20.9	17.3	17.9	18.4	18.9
Corporate support costs	40.4	31.6	32.0	31.4	(0.6)	47.8	32.7	24.6	33.5	25.3	26.1	26.9	27.7
Indirect costs	23.1	26.8	29.5	25.2	(4.4)	34.1	30.2	14.8	30.9	15.5	15.7	15.7	16.6
Corrective maintenance	6.8	50.5	50.5	88.0	37.5	61.5	51.6	83.7	52.9	86.2	88.6	90.9	93.6
Labour	0.6	10.2	10.8	20.3	9.5	9.0	11.0	10.0	11.3	10.3	10.6	10.9	11.3
Contractors	2.0	11.6	7.2	9.1	1.9	15.0	7.3	30.0	7.5	30.8	31.7	32.5	33.4
Materials	0.4	4.2	5.7	4.1	(1.6)	10.0	5.8	15.0	6.0	15.4	15.8	16.3	16.7
Other	2.3	4.4	5.6	6.2	0.6	7.0	5.8	7.0	5.9	7.2	7.4	7.6	7.8
Local area support costs	0.6	5.6	5.2	11.8	6.6	5.9	5.3	6.5	5.4	6.7	6.9	7.1	7.3
Corporate support costs	0.4	7.8	8.3	20.5	12.2	8.6	8.5	9.5	8.7	9.8	10.1	10.4	10.7
Indirect costs	0.4	6.7	7.7	16.0	8.4	6.1	7.8	5.7	8.0	6.0	6.1	6.0	6.4
<b>Operating costs total</b>	<b>810.0</b>	<b>938.4</b>	<b>1005.0</b>	<b>1085.2</b>	<b>80.2</b>	<b>1158.0</b>	<b>1026.3</b>	<b>1167.1</b>	<b>1050.6</b>	<b>1214.4</b>	<b>1258.9</b>	<b>1302.7</b>	<b>1357.1</b>
<b>Annuity-funded costs</b>													
Labour		24.7	25.8	53.8	28.0	60.5	64.5	121.1	81.9	139.0	133.8	166.5	335.7
Contractors		122.5	112.6	234.5	121.9	184.9	197.3	133.2	90.1	152.5	146.4	181.8	365.7
Materials		-	18.3	38.1	19.8	97.0	103.5	133.2	90.1	152.5	146.4	181.8	365.7
Other		7.7	1.4	3.0	1.5	21.2	22.6	72.7	49.1	83.2	79.9	99.2	199.5
Local area support costs		13.9	14.0	29.1	15.2	39.6	42.2	78.7	53.2	90.3	86.9	108.2	218.2
Corporate support costs		19.3	26.7	55.6	28.9	57.5	61.3	115.1	77.8	132.0	127.1	158.2	318.9
Indirect costs		15.9	19.9	41.5	21.6	41.1	43.8	69.3	46.8	80.7	76.6	92.1	191.5
<b>Annuity-funded total<sup>1</sup></b>	<b>30.3</b>	<b>204.0</b>	<b>218.8</b>	<b>455.7</b>	<b>236.8</b>	<b>501.8</b>	<b>535.3</b>	<b>723.4</b>	<b>489.2</b>	<b>830.1</b>	<b>797.1</b>	<b>987.9</b>	<b>1995.3</b>
<b>Total costs<sup>2</sup></b>	<b>840.4</b>	<b>1142.4</b>	<b>1223.8</b>	<b>1540.8</b>	<b>317.0</b>	<b>1659.7</b>	<b>1561.6</b>	<b>1890.4</b>	<b>1539.8</b>	<b>2044.5</b>	<b>2056.0</b>	<b>2290.6</b>	<b>3352.4</b>

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 Dawson Valley Bulk Water Service Contract in 2020/21<sup>5</sup> and the actual projects undertaken.

Facility	Activity description	Forecast \$'000	Actual \$'000	Commentary
Dawson River	Replace – customer meters.	84	114	Additional work was required during meter installation to comply with AS4747.
Moura Off-stream Storage	Study – design and investigation inputs, including seismic study, to inform the comprehensive risk assessment (CRA).	78	102	This project was delivered broadly in line with the forecast budget.
Scheme	Study – audit and review of all scheme switchboards and distribution boards to reassess arc flash rating in accordance with Australian Standards.	66	39	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.
Neville Hewitt Weir	Remove – obsolete gantry crane superstructure from the weir.	60	7	Contractor costs were lower than anticipated.
Moura Weir	Refurbish – 1200 mm diameter butterfly valve, stub, and flange.	51	51	This project was undertaken in line with the budget.
Gyranda Weir	Refurbish – inlet trash racks.	44	43	Due to the condition of the trash racks, Sunwater was required to replace (not refurbish) the inlet structure trash racks.
Scheme	Study – asset revaluation.	39	0	This project was not undertaken as part of the annuity-funded program of works.
Orange Creek Weir	Refurbish – reinstate downstream left abutment rock protection works.	27	8	The project could not be completed due to the weather.
Neville Hewitt Weir	Refurbish/replace – outlet works (inlet structure) grid mesh cover and trash screen.	20	0	This project was no longer required.
Multiple	Various projects.	61	56	Sunwater incurred additional costs to refurbish the dissipater/discharge channel at Neville Hewitt Weir (\$9k more) because the outlet valve needed to be safely isolated. Repairs to the Theodore Weir Anabranch were also \$8k more than budgeted due to additional works to protect the existing fence line in the work area. The service contract's contingency amount of \$21k was not required.
Multiple	Various projects.	0	37	Two projects to refurbish the upstream and downstream fish slides were carried over from 2019/20, as it was more efficient to combine them with works being carried out in 2020/21.
<b>2020/21 Total</b>		<b>530</b>	<b>456</b>	

<sup>5</sup> Based on information extracted from Sunwater's systems in mid-2020. See the 2021/22 S&PP at [www.sunwater.com.au/schemes/Dawson-Valley/](http://www.sunwater.com.au/schemes/Dawson-Valley/)



## 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	Gyranda Weir	Replace – corroded access ladders, handrails, and platforms at the intake tower.	145
	Moura Weir	Replace – control system hardware and software and telemetry equipment.	119
	Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	103
	Orange Creek Weir	Replace – design, fabricate and install new regulating gate/valve.	119
	Orange Creek Weir	Refurbish – right bank downstream abutment and bank protection works.	68
	Orange Creek Weir	Refurbish – left bank downstream abutment and bank protection works.	36
	Moura Weir	Replace – pumps 1 and 2 motor protection relays.	48
	Theodore Weir	Repair – right bank abutment and stabilise retaining rock wall based on known asset condition and age.	31
	Multiple	There are three other annuity-funded projects planned for 2022/23 related to a Dawson River gauging equipment replacement; an options study into Moura Off-stream Storage pump well structure options; and Gyranda Weir trash screen refurbishments.	54
	<b>2022/23 Total</b>		<b>723</b>
2023/24	Moura Off-stream Storage	Study – 20-year dam safety review based on regulatory requirements to better understand asset condition and risk.	408
	Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	107
	Glebe Weir	Study – comprehensive inspection to meet asset management, condition, and risk standards.	50
	Moura Weir	Study – comprehensive inspection to meet asset management, condition, and risk standards.	48
	Gyranda Weir	Study – comprehensive inspection to meet asset management, condition, and risk standards.	44
	Theodore Weir	Study – comprehensive inspection to meet asset management, condition, and risk standards.	42
	Neville Hewitt Weir	Refurbish – main weir 750 mm regulating valve hydraulic actuator and anabranh 350 mm regulating valve.	36
	Multiple	There are five other annuity-funded projects planned for 2023/24 related to replacement of Neville Hewitt Weir, Gyranda Weir and Moura Off-stream Storage supervisory control and data acquisition systems; Moura Weir trash screen refurbishments; and a Dawson River gauging equipment replacement.	95
	<b>2023/24 Total</b>		<b>830</b>

Year	Facility	Activity description	Forecast \$'000
2024/25	Moura Weir	Refurbish – seven fishway slide gates based on known asset condition and age.	268
	Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	110
	Gyranda Weir	Replace – three electric actuators based on known asset condition and age.	91
	Moura Off-stream Storage	Replace – seven rising main pipeline air valves based on known asset condition and age.	92
	Gyranda Weir	Refurbish – reinstate pressure relief holes in sheet pile and undertake thickness testing based on known asset condition and age.	87
	Glebe Weir	Refurbish – upstream and downstream regulating valves based on known asset condition and age.	56
	Glebe Weir	Refurbish – left and right downstream abutment pressure relief holes.	51
	Multiple	There are three other annuity-funded projects planned for 2024/25 related to Orange Creek Weir trash screen refurbishments and reinstating Theodore Weir pressure relief holes.	43
	<b>2024/25 Total</b>		<b>797</b>
2025/26	Moura Off-stream Storage	Refurbish – rising main bifurcation, standpipe and reinforced concrete pipeline based on known asset condition and age.	294
	Moura Off-stream Storage pump station	Refurbish – pump units 1 and 2 submersible pumps based on known asset condition and age.	132
	Glebe Weir	Refurbish – main switchboard 1 and switchboards 2 to 5 based on known asset condition and age.	117
	Gyranda Weir	Replace – programmable logic controller control equipment, including sensor, based on known asset condition and age.	112
	Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	112
	Theodore Weir	Refurbish – outlet works regulating gates VLR001 and VLR002.	80
	Moura Off-stream Storage	Refurbish – spillway downstream rock mattress protection system.	39
	Scheme	Study – asset revaluation to define asset value for insurance purposes and future expenditure profiles.	52
	Multiple	There are three other annuity-funded projects planned for 2025/26 related to Glebe Weir electrical works and handrails and cover refurbishments at Neville Hewitt and Orange Creek weirs.	49
	<b>2025/26 Total</b>		<b>988</b>
2026/27	Gyranda Weir	Refurbish – spillway concrete slabs, pile capping and aprons (subject to condition assessment).	401
	Moura Weir	Refurbish – left and right abutment protection works.	221
	Gyranda Weir	Replace – outlet works 'Vickers' slide gates (subject to condition assessment).	270
	Theodore Weir	Refurbish – left and right bank and ancillary access roads.	167
	Gyranda Weir	Refurbish – outlet works conduit and culvert structures (subject to condition assessment).	134
	Scheme	Replace – customer meters to AS4747 to meet regulatory compliance.	116

Year	Facility	Activity description	Forecast \$'000
	Gyranda Weir	Refurbish – tailwater measuring weir V-notch and structure.	94
	Moura Weir	Refurbish – outlet works pipe, conduit, and stub section.	82
	Neville Hewitt Weir	Replace – weir control systems and equipment.	81
	Moura Off-stream Storage	Refurbish – embankment access road.	67
	Gyranda Weir	Refurbish – weir recorder building.	51
	Moura Off-stream Storage pump station	Replace – pump station hydraulic control system and equipment.	43
	Moura Off-stream Storage	Study – comprehensive inspection to meet regulatory compliance.	40
	Gyranda Weir	Refurbish – inlet trash screens.	40
	Multiple	There are 14 other annuity-funded projects planned for 2026/27 related to, for example, Dawson River gauging station access ladder, handrails, and platform refurbishments; bulkhead, guide and trash screen works at Gyranda Weir; and Moura Off-stream Storage rising main inspection and pump station valve works.	187
	<b>2026/27 Total</b>		<b>1995</b>

## Contact us

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

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