# sunwater

Final Service and Performance Plan 2021/22

Mareeba-Dimbulah Distribution Service Contract

13 August 2021

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## At a glance

#### Our performance in 2019/20



#### Operating costs: \$6.15 million (6.9% less than

Key drivers of cost variance:

- staff vacancies
- lower corrective maintenance costs



#### Annuity-funded costs: \$0.99 million (4.8% more than forecast)

Key drivers of cost variance:

- refurbishment of the M9 offtake structure required a reconfiguration of the site, resulting in higher than planned supply and installation costs
- the scope of work to refurbish the outlet works at Collins Weir was more complex than initially planned, requiring some additional modification to ensure reliability.
- the copper sulphate project has continued with the development of a Code of Practice for its use in the scheme.



## Total water deliveries: 142,652 ML

Water delivered to irrigators: 121,488 ML



#### Service targets: 2 exceedances

While two unplanned shutdowns failed to be rectified in time, the impact on customers was minimal as the shutdowns occurred outside of peak periods. Fifteen customers were interrupted in excess of 10 times, largely due to pipe breaks on ageing infrastructure and modernisation work.

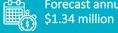
#### Outlook for 2021/22



## Forecast operating costs: \$7.18 million

Significant areas of expenditure budgeted

- electricity (\$0.59 million)
- insurance (\$0.75 million)
- operations (\$2.80 million
- preventative maintenance (\$1.03 million)
- corrective maintenance (\$2.02 million)



### Forecast annuity-funded costs:

Key projects planned

- upgrade or replacement of switchboard and cables at Price Creek A pump station (\$0.30 million)
- upgrade or replacement of switchboard, cables and control system at Price Creek E pump station (\$0.23 million).

#### Introduction

This Service and Performance Plan (S&PP) details a range of proposed scheme activities and projects, and presents a breakdown of anticipated costs for review. It also compares Sunwater's actual costs for 2019/20 with our previous forecasts for this scheme.

The purpose of this year's S&PP for the Mareeba-Dimbulah Distribution Service Contract is to:

- present to customers Sunwater's projected costs<sup>1</sup> for the upcoming five-year period, i.e. 2021/22 to 2025/26
- consult with our customers on forecast operating and annuity-funded costs for 2021/22 and the forward program of works
- examine Sunwater's performance in 2019/20 against previous forecasts and service targets.

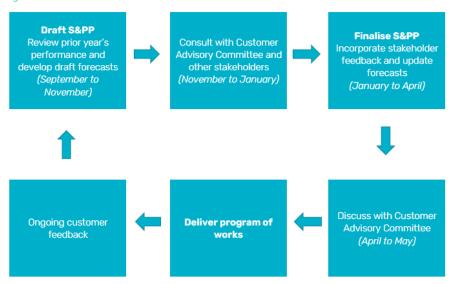
Our focus during 2021/22 will be on ensuring operations activities are implemented safely, timely and efficiently. We will also concentrate on water order compliance and implementing new channel control infrastructure. In addition, we are continuing to implement an efficient and effective preventative maintenance program, with a focus on ensuring the service contract's assets continue to perform reliably.

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/

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: <a href="mailto:sppfeedback@sunwater.com.au">sppfeedback@sunwater.com.au</a>

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

 $<sup>^{1}</sup>$  All financial figures reported in this document are in nominal dollars, i.e. dollars of the day. Figures may not sum due to rounding.

## Delivering services to our customers

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

#### Our customers

The Mareeba-Dimbulah Distribution Service Contract is one of Sunwater's largest service contracts. The majority of the 962 customers in this service contract are irrigators who grow a variety of crops including mangoes, bananas, paw paws, citrus, avocados, general horticulture, sugar cane, tea-trees and coffee. Water is also supplied to the townships of Walkamin, Mareeba, Mutchilba and Dimbulah.

The water allocations for each customer segment are included in Table 1, together with water deliveries in 2019/20. Historical total water usage is available in **Appendix 1**.

Table 1: Water allocations and usage data<sup>1</sup>

Customer segment	Total water allocations (ML)	High priority water allocations (ML)	Medium priority water allocations (ML)	Total water deliveries 2019/20 (ML)
Irrigation	144,548	0	144,548	121,488
Industrial	1243	135	1108	597
Urban	1167	431	736	473
Sunwater (excl. distribution losses)	0	0	0	0
Sunwater distribution losses	45,000	8000	37,000	20,095
Total	191,957	8566	183,391	142,652

Distribution system only.

#### Irrigation charges

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

Table 2: Irrigation charges for 2021/22<sup>1</sup>

Tariff group	Product	2021/22 (\$/ML) <sup>2</sup>	QCA cost- reflective (\$/ML)³
River – Supplemented	Allocation Charge – Part C	20.66	25.98
Streams & Walsh River	Allocation Water – Part D	3.01	3.62
Channel – Outside a relift up	Allocation Charge – Part C	45.36	54.90
to 100ML	Allocation Water – Part D	5.02	6.03
Channel – Outside a relift	Allocation Charge – Part C	39.67	48.39
100ML to 500ML	Allocation Water – Part D	5.02	6.03
Channel – Outside a relift	Allocation Charge – Part C	30.17	37.52
more than 500ML	Allocation Water – Part D	5.02	6.03
Channel – Relift	Allocation Charge – Part C	34.51	53.75
Cildillei – Neiill	Allocation Water – Part D	74.93	91.05

- This table includes distribution charges only. For bulk water charges, please refer to the Bulk Water Service Contract S&PP.
- Includes the Queensland Government's 15 per cent discount for irrigation customers. Refer to www.rdmw.qld.gov.au for more information.
- Is the cost-reflective price determined by the Queensland Competition Authority (QCA) in its 2020–2024 irrigation price investigation. Costs reflect lower bound cost recovery, i.e. recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.

In addition to these charges, an annual access charge of \$597.70 per customer will apply in 2021/22 (inclusive of the 15 per cent discount).

For more information on Sunwater's fees and charges, refer to: <a href="https://www.sunwater.com.au/customer/fees-and-charges/">www.sunwater.com.au/customer/fees-and-charges/</a>

#### Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for the Mareeba-Dimbulah Distribution Service Contract. Table 3 below sets out our recent performance against selected service targets for this scheme.

In 2019/20, two exceedances of the unplanned shutdown (duration) service target were recorded. These exceedances related to a pipe leak and repairs to the M9 gate and had a minimal impact on customers as they were undertaken outside of major demand periods.

Fifteen customers were interrupted more than 10 times. This was largely due to general pipe leaks associated with ageing infrastructure, as well as planned work related to the Mareeba-Dimbulah Water Supply Scheme Efficiency Improvement Project.

Table 3: Scheme service targets and performance

Service target		Target	Number of exceptions					
			2017/18	2018/19	2019/20			
	For shutdowns planned to exceed 2 weeks	6 months	0	0	0			
Planned shutdowns – notification	For shutdowns planned to exceed 3 days	4 weeks	0	0	0			
	For shutdowns planned to be less than 4 days	5 days	0	0	0			
Unplanned	Unplanned shutdowns during Peak Demand Period	72 hours	2	0	2			
duration <sup>1</sup>	Unplanned shutdowns outside Peak Demand Period	5 working days	2	U	2			
Maximum number of interruptions <sup>2</sup>	Planned or unplanned interruptions per water year	10	7	21	15			

- 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 distribution 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 2019/20 against these service targets is shown in Table 4.

Table 4: Customer interactions service targets and performance

Service target	Target	2019/20
Telephone answering <sup>1</sup>	80.00%	94.87%
Requests actioned within Service Level Agreement (SLA) timeframes <sup>2</sup>	> 95.00%	95.46%

- This target measures the percentage of 13 15 89 calls that are answered within 60 seconds. The 2019/20 result reflects the average monthly performance over the November 2019 to June 2020 period.
- This target measures the percentage of email or workflow requests (such as property transfers and temporary transfers) to the Customer Support email address that are completed within the agreed SLAs. The SLA timeframes range between two and 10 business days, depending on the request. The 2019/20 result covers the October 2019 to June 2020 period.

#### Key infrastructure

Table 5 lists the key infrastructure used to deliver distribution services to our customers in Mareeba-Dimbulah. We also maintain a large network of channels and pipelines.

Table 5: Key infrastructure

Asset	Description	Capacity
Bruce Weir	Mass concrete gravity weir with central ogee spillway.	970 ML
Collins Weir	Mass concrete gravity weir with central ogee spillway.	600 ML
Dulbil Weir	Mass concrete gravity weir with centre and right bank ogee spillways.	271 ML
Granite Creek Weir	Mass concrete gravity weir with centre, right and left ogee spillways.	244 ML
Leafgold Weir	Mass concrete gravity weir with central ogee spillway.	260 ML
Solanum Weir	Mass concrete gravity weir with central ogee spillway	345 ML
Price Creek A pump station	Two pumps and a 1 ML balancing storage.	22 ML/day 12 ML/day (pumps)
Price Creek B pump station	Two pumps and a 1 ML balancing storage.	17 ML/day 7 ML/day (pumps)
WB10 pump station	One pump.	3.5 ML/day
Paddy's Green A pump station	Three pumps and 1 ML storage.	18 ML/day (pumps)
Paddy's Green B pump station	Three pumps and 1 ML storage.	16 ML/day (pumps)

## Financial summary—Revenue and expenditure

A high-level summary of the budgeted financial performance of the Mareeba-Dimbulah Distribution Service Contract is presented in Table 6.

The revenue Sunwater receives from urban and industrial customers is agreed by term contract. The revenue we receive from irrigation customers is determined by the Queensland Government, based on recommendations made by the QCA as part of its review of irrigation prices.

Sunwater anticipates an increase in revenue for the Mareeba-Dimbulah Distribution Service Contract in 2021/22.

In 2021/22, Sunwater expects to spend \$473 million across all parts of our business, i.e. regulated and non-regulated. A breakdown of the forecast total cost pool at the direct and non-direct cost level is shown in Figure 2, together with the percentage of these costs allocated to the Mareeba-Dimbulah Distribution Service Contract. Detail on the planned spend for this scheme is outlined on subsequent pages of this S&PP.

Figure 2: Total Sunwater cost pools and allocation to scheme—2021/22 forecast (\$M)

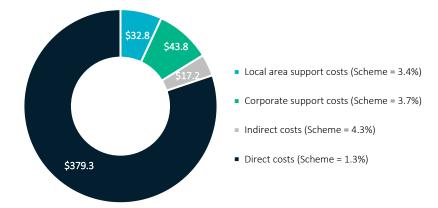


Table 6: Service contract financial summary

Mareeba-Dimbulah Distribution Service Contract	2017/18 Actual \$'000	2018/19 Actual \$'000	2019/20 Actual \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000
Revenue					
Irrigation	7489.0	7805.9	8134.4	8016.0	8932.2
Community Service Obligation	48.6	30.4	11.8	-	-
Industrial <sup>1</sup>	266.3	254.9	264.9	231.0	232.1
Urban¹	203.6	206.1	211.3	217.2	214.7
Revenue transfers <sup>2</sup>	(927.0)	(933.2)	(950.8)	(1068.1)	(936.7)
Drainage	-	-	-	-	-
Other	(1806.4)	37.4	42.8	10.0	10.0
Revenue total	5274.1	7401.4	7714.3	7406.0	8452.3
Less – Operating expenditure	4871.4	5793.4	6145.7	6779.4	7183.8
Less					
Annuity-funded	554.5	1048.7	991.6	1473.5	1336.3
Non-annuity funded	18.8	15.3	-	-	-
Surplus (deficit)	(170.6)	544.0	577.0	(846.9)	(67.9)

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. The revenue accrues to the distribution system before it is transferred to the Bulk Water Service Contract as a contribution to the cost of the bulk water service.

## 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 Mareeba-Dimbulah Distribution Service Contract. For a more detailed breakdown by cost category, refer to **Appendix 2**.

#### Our performance in 2019/20

In 2019/20, operating costs were lower than our previous forecast.<sup>2</sup> Staff vacancies existed for most of the year, combined with a decrease in corrective maintenance.

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

Mareeba-Dimbulah	2017/18	2018/19		2019/20		2020	0/21	2021	L/22	2022/23	2023/24	2024/25	2025/26
Distribution Service Contract	Sunwater Actual \$'000	Sunwater Actual \$'000	Sunwater Forecast \$'000	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'000²	Sunwater Forecast \$'000	QCA Target \$'000²	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operations	2384.2	3316.7	3596.1	3402.2	(193.8)	3852.4	3494.5	4135.9	3603.3	4191.7	4299.5	4403.7	4499.9
Electricity	543.2	532.7	630.9	573.5	(57.4)	700.4	484.2	586.0	528.7	597.7	609.7	621.9	634.3
Insurance	348.1	369.2	411.0	423.3	12.2	570.5	465.0	748.8	474.3	763.8	779.1	794.7	810.6
Operations	1492.9	2414.8	2554.1	2405.5	(148.6)	2581.5	2545.3	2801.1	2600.3	2830.2	2910.7	2987.1	3055.0
Preventative maintenance	767.4	930.8	970.1	936.0	(34.1)	997.2	1010.2	1030.8	1032.1	1043.3	1075.1	1104.3	1130.2
Corrective maintenance	1719.9	1545.8	2037.3	1807.5	(229.8)	1929.8	1822.1	2017.1	1861.1	2042.6	2103.4	2159.6	2209.6
Operating costs total	4871.4	5793.4	6603.4	6145.7	(457.7)	6779.4	6326.8	7183.8	6496.5	7277.6	7478.0	7667.6	7839.6
Recreational facility costs <sup>3</sup>						-		-		-	-	-	-
Operating costs total (incl. recreational facility costs)	4871.4	5793.4	6603.4	6145.7	(457.7)	6779.4		7183.8		7277.6	7478.0	7667.6	7839.6

- 1. Sunwater's 2022/23 to 2025/26 budget figures are draft as at the time of consultation. These figures will not be locked down until late in the financial year prior.
- 2. Reflects the QCA's 2020–2024 irrigation price investigation final recommendations. Excludes recreational facility costs.
- 3. From 1 July 2020, irrigation customers no longer contribute towards the cost of operating and maintaining recreational facilities. Forecast costs have been separately identified for transparency.

<sup>&</sup>lt;sup>2</sup> See the 2019/20 Network Service Plan at www.sunwater.com.au/schemes/Mareeba-Dimbulah/

#### Electricity

One of the key challenges for Sunwater is managing the cost of electricity. In 2019/20, Sunwater undertook the following energy improvement initiatives in the Mareeba-Dimbulah Distribution 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 resulted in no tariff changes in 2019/20.
- interval meters were installed at pump stations (as required) to provide the granular level of consumption and demand information needed to accurately assist in identifying operational optimisation and renewable generation opportunities
- a solar assessment, which resulted in 16.86kW being installed at the Mareeba office. The assessment found it is not currently cost-effective to invest in solar installations at the pump stations.
- a small hydro economic feasibility assessment was undertaken at 'The Chute'. It is not feasible to progress with the recommendation to investigate behind the meter options for the site to be economically viable as there is not a pump station at this location to install a hydro facility behind the meter.

## Outlook for 2021/22 Operations

Mareeba-Dimbulah Distribution Service Contract's total operations budget in 2021/22 is 14.8 per cent above the QCA's recommended cost target. Some of the additional expenditure that is expected to be incurred, when compared to historical expenditure and the QCA target, is attributed to additional staffing levels related to modernisation which will equate to additional water sales into the future.

#### Insurance

Insurance is one of Sunwater's largest expenditure items. These costs have increased significantly in recent years due to multiple flood events in Queensland and global insurable events impacting premiums. Although Sunwater is subject to market forces in the pricing of insurance premiums,

we have also been actively managing insurance premium costs by reviewing coverage levels and policy specifications (including deductibles) to ensure that our insurance coverage is appropriate and reflective of the risks faced by our business.

In 2020/21, Sunwater experienced a significant price increase in insurance premiums. Our insurance broker has indicated this is the beginning of an upward trend in premiums due to, among other factors, the number and size of natural disasters that have occurred in Australia over the past 12 months. Insurance premiums in 2021/22 are therefore expected to be higher than the QCA's recommended allowance and historical costs.

#### Electricity

In 2021/22, 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
- operational optimisation assessment (as required)
- renewable generation opportunity assessment (as required)
- outcome of energy audits reviewed and implemented (as required).

#### Preventative maintenance

The forecast preventative maintenance costs for the Mareeba-Dimbulah Distribution Service Contract are in line with the QCA's recommended cost target (0.1 per cent below the target).

#### Corrective maintenance

In 2021/22, Sunwater anticipates spending \$2.02 million on corrective maintenance in the Mareeba-Dimbulah Distribution Service Contract. This is 8.4 per cent above the QCA's recommended cost target. However, the total combined preventative and corrective maintenance budget is broadly aligned to the QCA's targets.

#### **Electricity metrics**

Table 8 sets out electricity usage and efficiency-related information for the Mareeba-Dimbulah Distribution Service Contract. An energy audit for this scheme is due to be completed by the end of December 2021. This audit will consist of an overall scheme energy efficiency review, plus a deeper dive into the pump efficiency metrics.

Table 8: Electricity usage and efficiency-related metrics

Metric	2016/17	2017/18	2018/19	2019/20
Electricity usage (kWh)	1,877,847	1,812,023	2,195,965	2,359,432
Water usage (ML)	132,084	111,947	115,303	142,652
Actual electricity cost per ML (\$/ML delivered)	3.77	4.85	4.62	4.02
Average pump energy indicator <sup>1</sup> (kWh/ML/per metre of head)	4.55	4.63	4.69	5.02

<sup>1.</sup> 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 expenditure include funds for preventative and corrective maintenance, as well as large, one-off operations activities. The preventative maintenance activities monitor the asset condition and inform the corrective maintenance program when an asset needs to be refurbished or replaced. Non-annuity funded expenditure largely relates to Sunwater's Dam Improvement Program and recreational facility costs.

Table 9 outlines our annuity and non-annuity funded expenditure. A comparison of forecast and actual annuity-funded projects for 2019/20 is provided in **Appendix 3**, with details of the major annuity-funded projects planned for the 2020/21 to 2025/26 period set out in **Appendix 4**.

Table 9: Annuity and non-annuity funded expenditure<sup>1,2</sup>

	2017/18	2018/19		2019/20		2020	0/21	202:	1/22	2022/23	2023/24	2024/25	2025/26
Mareeba-Dimbulah Distribution Service Contract	Sunwater Actual \$'0003	Sunwater Actual \$'0003	Sunwater Forecast \$'000	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'0004	Sunwater Forecast \$'000	QCA Target \$'0004	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Annuity-funded													
Operations	48.8	98.4	-	141.6	141.6	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Planned corrective maintenance	505.7	950.3	946.1	850.1	(96.0)	1473.5	1262.4	1336.3	831.4	1785.7	2041.1	804.6	3411.1
Unplanned corrective maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Annuity-funded total	554.5	1048.7	946.1	991.6	45.5	1473.5	1262.4	1336.3	831.4	1785.7	2041.1	804.6	3411.1
Non-annuity funded													
Dam Improvement Program	-	-	-	-	-	-		-		-	-	-	-
Recreational facility projects						-		-		-	-	-	-
Metered offtakes and dividend reinvestment	18.8	15.3	-	-	-	-		-		-	-	-	-
Non-annuity total	18.8	15.3	-	-	-	-		-		-	-	-	-

- 1. Sunwater's 2022/23 to 2025/26 budget figures are draft as at the time of consultation. These figures will not be locked down until late in the financial year prior.
- 2. Forecast annuity-funded costs from 2020/21 exclude recreational facility projects.
- 3. The annuity-funded spend for 2017/18 and 2018/19 reflects the QCA's 2020–2024 irrigation price investigation final recommendations, which included adjustments to Sunwater's actual costs.
- 4. Reflects the QCA's 2020–2024 irrigation price investigation final recommendations.

#### Asset management and planning improvements

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

- improve our predictive maintenance and asset condition reporting arrangements to better inform the timing of asset replacement
- review our cost estimation approach and ensure that asset values are based on modern equivalent replacement values where appropriate
- develop transparent guidelines for options analyses.<sup>3</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 2021/22 and beyond is to better leverage data to make more informed decisions and to ensure operations and maintenance activities are implemented safely, timely and efficiently.

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

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

#### 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.

#### Options analyses

Sunwater is implementing improvements to our asset management system with a fit-for-purpose alignment to the ISO55001 asset management standard. Key to the alignment is the simplification of how maintenance work is identified and delivered.

Low value, low complexity work follows a standard work management methodology and is managed at a service contract level. High value, high complexity work is managed at an individual level and follows Sunwater's project, program and portfolio management framework (P3MF) and is subject to an options analysis.

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

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

## 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* 

Mareeba-Dimbulah Distribution Service Contract	2017/18 Actual \$'000	2018/19 Actual \$'000	2019/20 Actual \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000	2024/25 Forecast \$'000	2025/26 Forecast \$'000
Opening balance <sup>1</sup>	6515.5	8674.5	10,556.5	12,693.7	12,604.4	12,728.7	12,437.3	11,927.5	15,571.0
Spend <sup>2</sup>	(554.5)	(1048.7)	(991.6)	(1473.5)	(1336.3)	(1785.7)	(2041.1)	(804.6)	(3411.1)
Insurance proceeds receipts (if applicable)									
Prior year	-	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	2225.4	2281.0	2338.1	829.2	909.5	937.8	987.5	3926.6	3970.2
Interest/financing costs	488.0	649.7	790.7	555.0	551.1	556.5	543.8	521.5	680.8
Sunwater – Closing balance	8674.5	10,556.5	12,693.7	12,604.4	12,728.7	12,437.3	11,927.5	15,571.0	16,811.0
QCA – Closing balance	8674.5	10,556.5	12,799.3	12,925.8	13,569.1	13,792.5	14,534.5		
Difference	-	-	(105.7)	(321.4)	(840.4)	(1355.2)	(2606.9)		

- 1. The opening balances for 2017/18, 2018/19 and 2019/20 reflect the QCA's 2020–2024 irrigation price investigation final recommendations.
- 2. The spend for 2017/18 and 2018/19 reflects the QCA's 2020–2024 irrigation price investigation final recommendations, which included adjustments to Sunwater's actual costs. The 2019/20 spend reflects Sunwater's actual costs. Thereafter, the spend is based on Sunwater's forecasts.
- 3. The annuity contribution is included in the prices paid by customers. It was set by the QCA from 2012/13 to 2016/17 and was rolled forward with the Consumer Price Index (CPI) for 2017/18, 2018/19 and 2019/20. From 2020/21 to 2023/24, the annuity contribution is based on the QCA's 2020–2024 irrigation price investigation final recommendations. Thereafter, it is based on Sunwater's projections.

## Appendix 1—Historical water usage

The below table contains the scheme's recent water use, together with the 18-year average for the 2002/03 to 2019/20 period.

Year	Usage (ML)
2010/11	93,971
2011/12	117,164
2012/13	145,206
2013/14	121,589
2014/15	148,111
2015/16	154,442
2016/17	132,084
2017/18	111,947
2018/19	115,303
2019/20	142,652
18-year historical average	125,873

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

	2017/18	2018/19		2019/20		2020	0/21	202:	1/22	2022/23	2023/24	2024/25	2025/26
Mareeba-Dimbulah Distribution Service Contract	Sunwater Actual \$'000	Sunwater Actual \$'000	Sunwater Forecast \$'000	Sunwater Actual \$'000	Variance \$'000	Sunwater Forecast \$'000	QCA Target \$'000	Sunwater Forecast \$'000	QCA Target \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operating costs													
Operations	2384.2	3316.7	3596.1	3402.2	(193.8)	3852.4	3494.5	4135.9	3603.3	4191.7	4299.5	4403.7	4499.9
Labour	489.4	709.5	698.1	796.8	98.6	747.5	671.6	776.8	687.0	800.1	824.1	848.8	874.3
Contractors	7.1	29.4	5.0	4.1	(0.9)	8.0	5.2	15.0	5.3	15.3	15.6	15.9	16.2
Materials	3.3	4.9	4.1	8.7	4.6	8.0	5.6	8.0	5.7	8.2	8.3	8.5	8.7
Electricity	543.2	532.7	630.9	573.5	(57.4)	700.4	484.2	586.0	528.7	597.7	609.7	621.9	634.3
Insurance	348.1	369.2	411.0	423.3	12.2	570.5	465.0	748.8	474.3	763.8	779.1	794.7	810.6
Other	114.6	118.3	539.3	126.6	(412.7)	420.2	518.7	418.3	529.1	422.8	424.0	428.7	434.8
Local area support costs	381.7	570.1	435.6	484.1	48.5	432.2	477.7	505.2	487.9	520.3	535.9	552.0	568.6
Corporate support costs	214.5	675.3	521.3	610.2	88.8	560.6	519.0	737.9	530.2	760.1	782.9	806.4	830.6
Indirect costs	282.3	307.4	350.6	375.0	24.4	405.1	347.6	339.9	355.1	303.4	319.8	326.8	321.9
Preventative maintenance	767.4	930.8	970.1	936.0	(34.1)	997.2	1010.2	1030.8	1032.1	1043.3	1075.1	1104.3	1130.2
Labour	232.8	214.8	288.8	248.1	(40.7)	278.1	278.7	273.5	285.1	281.7	290.2	298.9	307.8
Contractors	83.0	218.9	100.0	80.8	(19.2)	95.0	115.5	95.0	117.9	96.9	98.8	100.8	102.8
Materials	33.0	39.0	33.0	41.9	8.9	30.0	54.8	30.0	55.9	30.6	31.2	31.8	32.5
Other	5.8	8.2	3.0	102.9	99.9	75.0	3.2	75.0	3.2	76.5	78.0	79.6	81.2
Local area support costs	181.6	176.2	184.6	155.8	(28.8)	159.7	198.3	177.8	202.5	183.1	188.6	194.3	200.1
Corporate support costs	96.9	189.1	215.6	189.4	(26.2)	208.6	215.4	259.8	220.1	267.6	275.7	283.9	292.4
Indirect costs	134.3	84.6	145.0	117.1	(27.9)	150.7	144.3	119.7	147.4	106.8	112.6	115.1	113.3
Corrective maintenance	1719.9	1545.8	2037.3	1807.5	(229.8)	1929.8	1822.1	2017.1	1861.1	2042.6	2103.4	2159.6	2209.6
Labour	446.0	335.2	524.8	412.6	(112.2)	497.1	422.9	497.1	432.7	512.0	527.4	543.2	559.5
Contractors	108.5	178.7	85.0	171.5	86.5	90.0	83.6	100.0	85.4	102.0	104.0	106.1	108.2
Materials	322.3	373.0	330.0	417.7	87.7	330.0	363.4	330.0	370.7	336.6	343.3	350.2	357.2
Other	42.4	12.2	103.1	34.7	(68.4)	82.1	105.4	77.0	107.6	78.5	80.1	81.7	83.3
Local area support costs	346.9	306.9	338.9	259.0	(79.9)	288.3	300.8	323.1	307.3	332.8	342.8	353.1	363.7
Corporate support costs	197.1	244.5	391.9	312.6	(79.2)	372.8	326.9	472.3	333.9	486.4	501.0	516.1	531.5
Indirect costs	256.6	95.4	263.6	199.2	(64.3)	269.4	218.9	217.5	223.6	194.2	204.7	209.1	206.0
Operating costs total	4871.4	5793.4	6603.4	6145.7	(457.7)	6779.4	6326.8	7183.8	6496.5	7277.6	7478.0	7667.6	7839.6
Annuity-funded costs													
Labour			103.3	244.4	141.1	182.9	156.7	160.7	100.0	246.4	206.7	85.8	548.9
Contractors			412.6	206.2	(206.4)	590.6	506.0	446.3	277.7	452.2	899.1	420.3	838.5
Materials			232.7	95.8	(136.9)	363.3	311.3	396.9	247.0	551.2	524.1	128.1	668.7
Other			1.9	11.6	9.7	-	-	4.8	3.0	47.9	-	-	274.5
Local area support costs			66.6	133.1	66.5	100.5	86.1	104.7	65.1	160.5	134.7	55.8	356.9
Corporate support costs			77.2	191.8	114.6	137.2	117.5	152.6	95.0	234.1	196.3	81.5	521.5
Indirect costs			51.9	108.7	56.8	99.1	84.9	70.3	43.7	93.4	80.2	33.0	202.1
Annuity-funded total <sup>1</sup>	554.5	1048.7	946.1	991.6	45.5	1473.5	1262.4	1336.3	831.4	1785.7	2041.1	804.6	3411.1
Total costs <sup>2</sup>	5425.9	6842.1	7549.5	7137.3	(412.2)	8252.9	7589.2	8520.1	7327.9	9063.2	9519.0	8472.1	11,250.7

<sup>1.</sup> The 2017/18 and 2018/19 costs reflect the QCA's 2020–24 irrigation price investigation final recommendations, which included adjustments to Sunwater's actual costs. Sunwater has provided cost information at the lowest level of granularity available.

<sup>2.</sup> Excludes recreational facility costs from 2020/21.

## Appendix 3—Comparison of forecast and actual annuity-funded projects for 2019/20

The below table sets out the major annuity-funded projects planned for the Mareeba-Dimbulah Distribution Service Contract in 2019/20 and the actual projects undertaken.

Project	Forecast \$'000	Actual \$'000	Commentary
Meter replacements (20MDA11)	249	196	The supply and installation costs were lower than anticipated.
Mareeba Channel M15/2 – Pipeline replacement (20MDA23)	106	126	Additional remobilisation costs were incurred (plant/traffic control/internal resources) due to the inability to isolate and dewater at the planned time because of a failed upstream valve. This valve had to be replaced (not part of this project) before work could recommence.
West Barron main channel – Regulating gates (20MDA10 and 20MDA21)	97	77	Work was completed for less than anticipated. Work on one gate was completed under the National Water Infrastructure Development Fund.
Paddy's Green A & B pump station – Screens (20MDA26 and 20MDA27)	62	65	Supply and installation costs were higher than anticipated as the result of additional time incurred when installing the new screens due to pump station power isolation, dewatering and refilling system requirements.
			The project to replace gate #1 at Paddy's Green Pump Station B (\$11k) was removed from the program of works based on a condition assessment.
West Barron Balancing Storage – Rotating weed screen (20MDA05)	48	29	Work was completed for less than anticipated.
East Barron and South Walsh main channels – Control systems (20MDA07)	37	73	This project included works at Mareeba main channel and Solanum Weir (included in the "Other works" forecast figure below). The forecast amount for all work items was \$87k, i.e. the work was completed under budget.
Granite, Dulbil, Collins, Solanum, Bruce and Leafgold Weirs – Five yearly inspections and reports (20MDA14, 20MDA15, 20MDA16, 20MDA17, 20MDA18 and 20MDA19)	36	39	The inspections were completed in line with the forecast.
Mareeba, Price Creek and North Walsh – Options analyses (20MDA02, 20MDA25, 20MDA28 and 20MDA20)	35	50	Costs to develop the options analysis were higher than anticipated, including an increase in scope to consider additional pipelines.
Mareeba Channel M9 – Offtake replacement (20MDA22)	33	69	Supply and installation costs increased due to the need to reconfigure the site to ensure the safety of operations and maintenance staff.
Collins Weir – Outlet works (20MDA08)	31	52	Technical aspects and the effort required to complete this project were more complex than originally estimated. Refurbishment of the actuator required replacement of components, as opposed to refurbishment, as well as some modification of the arrangement itself. The project was carried over into 2020/21.
Other works	212	115	Other works included: refurbishment of West Barron Main Channel v-lift gate; replacement and/or refurbishment of safety screens, handrails, walkways and stairs in the Mareeba, West Barron and South Walsh Systems. The unplanned

Project	Forecast \$'000	Actual \$'000	Commentary
			capital replacements contingency budget (\$44k) was re-allocated to both scheduled and non-scheduled works.
Non-scheduled works	-	100	Most of these costs related to the development of a Code of Practice for the use of copper sulphate in the scheme.
2019/20 Total	946	992	

## Appendix 4—Annuity-funded projects for 2020/21 to 2025/26

The below table sets out Sunwater's currently planned annuity-funded projects for the 2020/21 to 2025/26 period for this scheme. While the immediate program is well defined, estimates become more uncertain further into the planning timeline. Forecasts are likely to change in future S&PPs, reflecting changes in project delivery timing; asset condition and risk updates; outcomes from scheduled asset inspections; and customer feedback.

Year	Facility	Activity description	Forecast \$'000
2020/21 <b>4</b>	Mareeba System	Refurbish – concrete channel lining based on known asset condition and age.	610
	East Barron and North Walsh	Replace – customer meters to Australian Standard (AS) 4747 to meet regulatory compliance.	228
	West Barron main channel	Refurbish – float and vertical slide type regulating gates based on known asset condition and age.	173
	Scheme	Study – audit and review of all scheme switchboards and distribution boards to reassess arc flash rating in accordance with Australian Standards.	78
	Mareeba System	Refurbish – channel and access roads (regrade and surface) based on known asset condition and age.	59
	Mareeba System	Refurbish – fences based on known asset condition and age.	47
	South Walsh and West Barron	Replace – control system equipment at the overflow and control gate structures to ensure continued control and communications functions.	38
	Scheme	Study – investigation, risk assessment and review of float regulating gate access arrangements to address a known safety risk.	35
	Multiple	There were 11 other annuity-funded projects planned for 2020/21, consisting of a suction pipe refurbishment at Price Creek B pump station; controls and radio replacements at various locations; a break pressure structure refurbishment; and minor metal works.	205
	2020/21 Total		1473
2021/22	Price Creek A pump station	Replace – switchboard and distribution cable based on known asset condition and age.	295
	Price Creek B pump station	Replace – switchboard, control equipment and distribution cable based on known asset condition and age.	231
	West Barron main channel	Refurbish – control gates (CR4, 5, 9, 11, 18 and 19) based on known asset condition and age.	214
	South Walsh relift	Replace – customer meters to AS4747 to meet regulatory compliance.	203
	West Barron main channel	Refurbish – vertical slide type regulating gates based on known asset condition and age.	102
	East Barron main channel	Replace – customer meters to AS4747 to meet regulatory compliance.	76

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

Year	Facility	Activity description	Forecast \$'000
	Multiple	There are 14 other annuity-funded projects planned for 2021/22 including regulating gate and metal work refurbishments at South Walsh main channel; gate actuation replacements at East Barron main channel; control equipment replacements at East Barron and in the Mareeba System; decommissioning a gate valve at Arriga; a deformation survey of a bench flume at South Walsh; downstream dissipator refurbishments at Leafgold and Bruce weirs; concrete repairs at Solanum Weir; fencing upgrades; and a concrete lining refurbishment investigation to inform the prioritisation of works.	216
	2021/22 Total		1337
2022/23	Mareeba System	Refurbish – concrete channel lining based on known asset condition and age.	639
	Atherton, East Barron, Mareeba, Southedge and West Barron	Replace – customer meters to AS4747 to meet regulatory compliance.	252
	West Barron System	Replace – regulating gate RG26 based on known asset condition and age.	237
	West Barron main channel	Refurbish – channel CH11 bracing beams based on known asset condition and age.	175
	Atherton channel	Study – investigate pipeline AC02A to define optimal solution.	107
	South Walsh main channel	Refurbish – bench flume based on known asset condition and age.	102
	Multiple	There are 18 other annuity-funded projects planned for 2022/23 including regulating gate refurbishments at Mareeba main channel; float regulating gate refurbishments at Southedge main channel; options studies; a channel offtake replacement at South Walsh; and a motor soft starter replacement at Biboohra.	274
	2022/23 Total		1786
2023/24	Paddy's Green A pump station	Replace – pump units 1 to 3, including motors and non-return valves, based on known asset condition and age.	815
	Mareeba System	Replace – pipeline P002 based on known asset condition and age.	371
	South Walsh channel and main channel, and Walsh Bluff main channel	Replace – customer meters to AS4747 to meet regulatory compliance.	211
	Mareeba main channel	Study – business case to define optimal solution for the replacement of pipeline P025.	137
	West Barron main channel	Refurbish – channel CH11 bracing beams based on known asset condition and age.	133
	Multiple	There are 21 other annuity-funded projects planned for 2023/24 including regulating gate refurbishments; float regulating gate refurbishments; air vent refurbishments; pressure relief valve replacements at Paddy's Green A pump station; non-return valve and isolating valve refurbishments at Price Creek A pump station; supervisory control and data acquisition (SCADA) software updates; and an options study into replacing control equipment across the scheme.	373
	2023/24 Total		2040
2024/25	Paddy's Green B pump station	Replace – pump units 1 to 3 pumps, non-return valves, pressure relief valve and electric motors based on known asset condition and age.	280
	South Walsh channel and main channel	Replace – customer meters to AS4747 to meet regulatory compliance.	201

Year	Facility	Activity description	Forecast \$'000
	Mareeba System	Replace – SCADA system based on known asset condition and age.	112
	West Barron main channel	Replace – safety screens based on known asset condition and age.	47
	Granite Creek, Dulbil, Collins, Solanum, Bruce and Leafgold weirs	Study – comprehensive inspections to meet asset management, condition and risk standards.	42
	Multiple	There are seven other annuity-funded projects planned for 2024/25 including an actuator replacement at West Barron main channel; a SCADA central processing unit replacement; a vertical lifting gate replacement at North Walsh main channel; a sliding gate replacement at Solanum Weir; a deformation survey of a bench flume at South Walsh; signage updates; and an air vent replacement.	122
	2024/25 Total		804
2025/26	Mareeba System	Refurbish – concrete channel lining based on known asset condition and age.	1820
	Mareeba channel and main channel, Southedge channel and West Barron main channel	Replace – customer meters to AS4747 to meet regulatory compliance.	287
	Mareeba and Biboohra main channels	Refurbish – standpipe baffles based on known asset condition and age.	224
	Mareeba System	Refurbish – channel access roads based on known asset condition and age.	141
	West Barron main channel	Replace – air valves based on known asset condition and age.	120
	Paddy's Green A pump station	Replace – programmable logic controller (PLC) control equipment based on known asset condition and age.	88
	Paddy's Green B pump station	Replace – PLC based on known asset condition and age.	77
	West Barron main channel	Replace – vertical lifting gate based on known asset condition and age.	62
	Multiple	There are 28 other annuity-funded projects planned for 2025/26 including, for example, flow meter replacements at Paddy's Green A and B pump stations; rotating screen refurbishments at West Barron balancing storage; control equipment replacements; fencing, gate and signage upgrades; air valve replacements; and a bench flume refurbishment at West Barron main channel.	592
	2025/26 Total		3411

#### Contact us

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

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