# sunwater

# **Draft Service and Performance Plan**

2021/22

Lower Mary River Distribution Service Contract

25 March 2021

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# At a glance

## Our performance in 2019/20

Operating costs: \$1.09 million (4.0% less than ரிரிரி forecast)

This cost variance is due to a redistribution of resource costs for operations, preventative



to 2020/21, as assets were unable to be taken offline until late in the financial year due to

#### Total water deliveries: ( L 9589 ML





## Outlook for 2021/22



Forecast operating costs: \$1.18 million



- design and procurement for electrical work at

# 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 Lower Mary River 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.

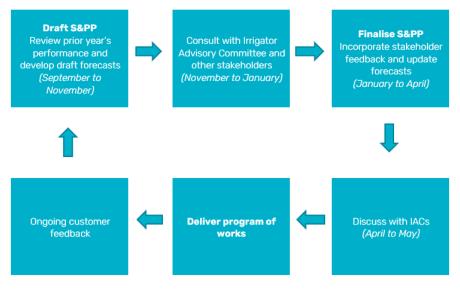
Our focus during 2021/22 will be on ensuring operations activities are implemented safely, timely and efficiently. We are also continuing to implement an efficient and effective preventative maintenance program, with a focus on ensuring the service contract's assets continue to perform reliably.

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

Cropping in this scheme is undergoing significant transition to macadamias from sugar cane. Other crop types include cotton and bean crops.

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	10,362	0	10,362	7862
Industrial	20	0	20	1
Urban	0	0	0	0
Sunwater (excl. distribution losses)	5580	0	5580	2
Sunwater distribution losses	4912	324	4588	1724
Total	20,874	324	20,550	9589

1. Distribution system only.

## Irrigation charges

The 2021/22 charges and cost per megalitre from the Queensland Competition Authority's (QCA) 2020–2024 irrigation price investigation are shown in Table 2. The Lower Mary River Distribution Service Contract is not expected to fully recover irrigation's share of costs.

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

Tariff group	Product	2021/22 (\$/ML) <sup>2</sup>	QCA cost- reflective (\$/ML) <sup>3</sup>	Subsidy (\$/ML)
Lower Mary Channel	Allocation Charge – Part C	55.29	56.51	1.22
	Allocation Water – Part D	68.51	68.51	n/a

1. This table includes distribution charges only. For bulk water charges, please refer to the Bulk Water Service Contract S&PP.

- 2. As recommended by the QCA. The Queensland Government has not yet determined the irrigation charges to apply in 2021/22.
- 3. Reflects the cost-reflective price determined by the QCA in its 2020–2024 irrigation price investigation. Costs reflect lower bound cost recovery, i.e. recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.

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

## Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for the Lower Mary River Distribution 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	Num	ber of except	tions
			2017/18	2018/19	2019/20
Planned shutdowns –	For shutdowns planned to exceed 2 weeks	8 weeks	0	0	0
notification	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	Unplanned shutdowns will be fixed so that at least partial supply can be resumed	48 hours	0	0	1
Maximum number of interruptions <sup>1</sup>	Planned or unplanned interruptions per water year	6	0	1	3

1. 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%

1. 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.

2. 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 Lower Mary River.

#### Table 5: Key infrastructure

Asset	Description	Capacity (ML/day)
Owanyilla pump station	Two pumps.	243
Walker Point pump station	Two pumps.	75
Copenhagen Bend pump station	Two submersible pumps.	65
Main Road pump station	Two pumps.	62

# Financial summary—Revenue and expenditure

A high-level summary of the budgeted financial performance of the Lower Mary River 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 Lower Mary River Distribution Service Contract in 2021/22.

In 2021/22, Sunwater expects to spend \$489 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 Lower Mary River 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*<sup>1</sup>—2021/22 *forecast (\$M)* 



1. Prior to the transfer of a portion of Owanyilla pump station and main channel costs to the Lower Mary River Bulk Water Service Contract.

#### Table 6: Service contract financial summary

Lower Mary River 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	732.3	952.0	1023.7	818.1	908.5
Community Service Obligation	741.3	736.7	732.0	-	-
Industrial <sup>1</sup>	2.5	2.6	3.2	2.6	2.7
Urban <sup>1</sup>	-	-	-	-	-
Revenue transfers <sup>2</sup>	(114.2)	(103.3)	(115.8)	(105.3)	(107.9)
Drainage	-	-	-	-	-
Other	(309.0)	40.4	0.3	-	-
Revenue total	1052.9	1628.4	1643.3	715.4	803.3
Less – Operating expenditure	759.0	891.9	1086.7	1090.1 <sup>3</sup>	1184.4 <sup>3</sup>
Less					
Annuity-funded	231.1	383.5	397.3	1098.0 <sup>3</sup>	437.7 <sup>3</sup>
Non-annuity funded <sup>4</sup>	-	12.2	-	-	-
Surplus (deficit)	62.8	340.8	159.3	(1472.7)	(818.8)

1. Forecast revenues for industrial and urban customers are based on current contractual arrangements.

2. 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.

- 3. Excludes a share of Owanyilla pump station and main channel costs which have been transferred to the Lower Mary River Bulk Water Service Contract.
- 4. This is expenditure which has not been funded by irrigation customers. An example of this in the Lower Mary River Distribution Service Contract is metered offtakes.

# 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 Lower Mary River Distribution Service Contract. For a more detailed breakdown by cost category, refer to **Appendix 2**.

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

Lower Mary River	2017/18	2018/19		2019/20		2020	)/21	2021	./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	456.7	533.5	693.9	721.2	27.3	794.0	704.4	900.6	825.3	933.7	950.3	830.3	844.3
Electricity	249.2	305.4	300.0	384.8	84.8	350.0	293.0	446.7	405.1	457.9	469.4	331.1	339.4
Insurance	52.7	56.3	63.3	65.2	1.9	87.8	70.9	90.0	72.4	92.2	94.5	96.9	99.3
Operations	154.7	171.8	330.7	271.3	(59.4)	356.2	340.4	363.9	347.8	383.6	386.4	402.2	405.6
Preventative maintenance	195.8	230.6	269.3	161.3	(108.0)	290.5	220.6	296.9	225.4	313.2	316.0	329.7	331.5
Corrective maintenance	106.6	127.8	169.3	204.2	34.9	189.0	178.1	193.2	182.0	203.1	205.3	213.7	215.4
<i>Less</i> costs transferred to Lower Mary River bulk for Owanyilla pump station and main channel <sup>3</sup>						(183.3)	(157.8)	(206.3)	(183.7)	(214.3)	(218.0)	(193.4)	(196.2)
Operating costs total	759.0	891.9	1132.5	1086.7	(45.8)	1090.1	945.3	1184.4	1049.0	1235.7	1253.7	1180.3	1195.0
Recreational facility costs <sup>4</sup>						-		-		-	-	-	-
Operating costs total (incl. recreational facility costs)	759.0	891.9	1132.5	1086.7	(45.8)	1090.1		1184.4		1235.7	1253.7	1180.3	1195.0

1. Sunwater's 2021/22 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. The Owanyilla pump station and main channel also perform a bulk water function as they supplement the Tinana Barrage and Teddington Weir. In its 2020–2024 irrigation price investigation final recommendations, the QCA transferred a share of the Owanyilla pump station and main channel costs from the Lower Mary River Distribution Service Contract to the Lower Mary River Bulk Water Service Contract. Refer to section 6.4.4 of the QCA's final Part B report at: <a href="http://www.qca.org.au/project/rural-water/irrigation-price-investigations/">www.qca.org.au/project/rural-water/irrigation-price-investigation</a>

4. 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.

## Our performance in 2019/20

In 2019/20, operating costs were lower than our previous forecast<sup>2</sup> due to a redistribution of resource costs for operations, preventative maintenance and corrective maintenance functions across service contracts managed within the region.

## 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 Lower Mary River 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 and did not result in any tariff changes for 2019/20.
- interval meters were installed at pump stations (as required) to provide the granular level of consumption and demand information needed to identify operational optimisation and renewable generation opportunities
- a solar assessment, which found it is not currently cost-effective to invest in solar installations at the pump stations.

## Outlook for 2021/22 Operations

Lower Mary River Distribution Service Contract's total operations budget in 2021/22 (prior to cost transfers) is 9.1 per cent above the QCA's recommended cost target. This variance is largely driven by electricity and insurance cost escalation.

#### 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 (prior to cost transfers) for the Lower Mary River Distribution Service Contract are 31.7 per cent above the QCA's recommended cost target. Statutory compliance drives a large portion of expenditure in the preventive maintenance field on items such as overhead cranes, fire panels and high voltage (HV) testing regimes.

#### Corrective maintenance

In 2021/22, Sunwater anticipates spending \$193.2k on corrective maintenance in the Lower Mary River Distribution Service Contract (prior to cost transfers). This is 6.2 per cent above the QCA's recommended cost target.

It is inherently difficult to forecast corrective maintenance costs due to the operating nature and location of particular assets. Sunwater will aim to keep

<sup>&</sup>lt;sup>2</sup> See the 2019/20 Network Service Plan at <u>www.sunwater.com.au/schemes/Lower-Mary-River/</u>

actual corrective maintenance costs to a minimum, while ensuring all assets can perform satisfactorily. Labour and contractor costs make up the largest proportion of the corrective maintenance budget. These costs will only be realised if required.

## **Electricity metrics**

Table 8 sets out electricity usage and efficiency-related information for the Lower Mary River Distribution Service Contract.

#### Table 8: Electricity usage and efficiency-related metrics

Metric	2016/17	2017/18	2018/19	2019/20
Electricity usage (kWh)	2,403,632	677,029	1,129,449	1,495,534
Water usage (ML)	12,733	5427	7609	9589
Actual electricity cost per ML (\$/ML delivered)	39.12	45.93	40.13	40.13
Average pump energy indicator <sup>1</sup> (kWh/ML/per metre of head)	4.42	4.62	4.37	4.17

1. The industry standard is 3.4 to 4.5, depending on the size 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 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** (all projects except Owanyilla pump station and main channel) and **Appendix 5** (Owanyilla pump station and main channel projects).

	2017/18	2018/19		2019/20		2020	)/21	2021	L/22	2022/23	2023/24	2024/25	2025/26
Lower Mary River Distribution Service Contract	Sunwater Actual \$'000 <sup>3</sup>	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	-	-	-	-	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Planned corrective maintenance	231.1	383.5	556.2	397.3	(158.9)	1292.7	365.7	602.7	404.8	1400.7	1044.3	564.8	141.5
Unplanned corrective maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Less</i> costs transferred to Lower Mary River bulk for Owanyilla pump station and main channel <sup>5</sup>						(194.7)	(71.0)	(165.0)	(142.1)	(374.2)	(419.3)	(10.7)	(7.6)
Annuity-funded total	231.1	383.5	556.2	397.3	(158.9)	1098.0	294.7	437.7	262.6	1026.5	624.9	554.1	133.9
Non-annuity funded													
Dam Improvement Program	-	-	-	-	-	-		-		-	-	-	-
Recreational facility projects						-		-		-	-	-	-
Metered offtakes and dividend reinvestment	-	12.2	-	-	-	-		-		-	-	-	-
Non-annuity total	-	12.2	-	-	-	-		-		-	-	-	-

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

1. Sunwater's 2021/22 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.

5. In its 2020–2024 irrigation price investigation final recommendations, the QCA transferred a share of the Owanyilla pump station and main channel costs from the Lower Mary River Distribution Service Contract to the Lower Mary River Bulk Water Service Contract. Refer to section 6.4.4 of the QCA's final Part B report at: <a href="http://www.qca.org.au/project/rural-water/irrigation-price-investigations/">www.qca.org.au/project/rural-water/irrigation-price-investigations/</a>

## 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 specific potential improvements and the broader asset management and planning processes as outlined below. We will report on our progress on the implementation of these initiatives in the final S&PP for 2021/22.

## Asset management performance growth

This initiative provides the opportunity to improve predictive maintenance capability and focuses on monitoring asset performance data of critical assets. The asset data will provide a greater insight into asset performance, condition, and refurbishment and replacement planning.

## Asset management planning

A change to Sunwater's asset planning cycle has improved the near-term cost estimation of annuity-funded work. The change targets 18 months of fully cost-estimated work and will help improve future asset replacement values.

#### Asset management improvement

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 we identify and deliver maintenance work. 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 Portfolio, Program and Project Management Framework (P3MF). P3MF defines the management and governance of projects including when an options analysis is required.

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

# 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.

Lower Mary River 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>	1648.3	2020.2	2284.6	2562.2	1568.3	1227.4	102.4	(676.3)	(856.8)
Spend <sup>2</sup>	(231.1)	(383.5)	(397.3)	(1292.7)	(602.7)	(1400.7)	(1044.3)	(564.8)	(141.5)
Insurance proceeds receipts (if applicable)									
Prior year	-	-	-	-	-	-	-	-	-
Current year	-	5.2	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	479.5	491.5	503.7	186.8	193.2	222.1	261.1	413.8	419.1
Interest/financing costs	123.5	151.3	171.1	112.0	68.6	53.7	4.5	(29.6)	(37.5)
Sunwater – Closing balance	2020.2	2284.6	2562.2	1568.3	1227.4	102.4	(676.3)	(856.8)	(616.7)
QCA – Closing balance	2020.2	2284.6	2437.5	2365.2	2257.0	1635.3	2061.2		
Difference	-	-	124.7	(796.9)	(1029.7)	(1532.9)	(2737.5)		
<i>Less</i> annuity contribution transferred to Lower Mary River bulk for Owanyilla pump station and main channel <sup>4</sup>				(95.5)	(95.9)	(97.1)	(97.0)	(79.0)	(78.9)

#### Table 10: Annuity balance

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. Figures presented are prior to cost transfers to the Lower Mary River Bulk Water Service Contract.

3. The annuity contribution is included in the prices paid by customers. For 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.

4. In its 2020–2024 irrigation price investigation final recommendations, the QCA recovered part of the Lower Mary River Distribution Service Contract annuity contribution from the Tinana Barrage and Teddington Weir bulk water tariff group as the Owanyilla pump station and main channel also perform a bulk water function.

# 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	746
2011/12	2726
2012/13	8697
2013/14	13,505
2014/15	5893
2015/16	9144
2016/17	12,733
2017/18	5427
2018/19	7609
2019/20	9589
18-year historical average	6422

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

Louise Merry Diver	2017/18	2018/19		2019/20		202	0/21	202	1/22	2022/23	2023/24	2024/25	2025/26
Lower Mary River 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	456.7	533.5	693.9	721.2	27.3	794.0	704.4	900.6	825.3	933.7	950.3	830.3	844.3
Labour	57.9	42.8	108.0	111.4	3.4	107.1	108.8	110.3	111.3	113.6	116.5	119.4	122.4
Contractors	0.1	0.4	5.0	1.8	(3.2)	6.0	2.5	6.2	2.6	6.3	6.5	6.6	6.8
Materials	0.7	0.2	1.0	3.2	2.2	2.0	4.5	2.1	4.5	2.1	2.2	2.2	2.3
Electricity	249.2	305.4	300.0	384.8	84.8	350.0	293.0	446.7	405.1	457.9	469.4	331.1	339.4
Insurance	52.7	56.3	63.3	65.2	1.9	87.8	70.9	90.0	72.4	92.2	94.5	96.9	99.3
Other	20.0	44.7	41.3	39.5	(1.9)	43.2	38.2	44.1	39.0	45.1	45.5	45.9	48.0
Local area support costs	32.2	23.0	40.5	30.2	(10.3)	59.5	46.0	61.3	47.0	63.2	64.7	66.4	68.0
Corporate support costs	19.8	41.4	80.6	51.4	(29.2)	80.3	84.1	82.7	85.9	85.2	87.3	89.5	91.8
Indirect costs	23.9	19.3	54.2	33.8	(20.4)	58.0	56.3	57.2	57.5	68.1	63.8	72.3	66.4
Preventative maintenance	195.8	230.6	269.3	161.3	(108.0)	290.5	220.6	296.9	225.4	313.2	316.0	329.7	331.5
Labour	65.1	64.9	90.7	51.5	(39.2)	89.2	69.3	91.9	70.9	94.6	97.0	99.4	101.9
Contractors	10.1	26.3	18.0	12.4	(5.6)	18.0	15.8	18.5	16.1	18.9	19.4	19.9	20.4
Materials	2.0	9.6	6.0	3.7	(2.3)	6.0	7.9	6.2	8.0	6.3	6.5	6.6	6.8
Other	5.2	10.2	9.0	6.7	(2.3)	13.0	8.7	13.3	8.9	13.7	14.0	14.3	14.7
Local area support costs	50.2	40.7	32.2	22.7	(9.5)	49.1	29.3	50.5	30.0	52.0	53.3	54.7	56.0
Corporate support costs	25.9	54.6	67.8	38.7	(29.1)	66.9	53.6	68.9	54.7	71.0	72.7	74.6	76.4
Indirect costs	37.2	24.2	45.6	25.5	(20.1)	48.3	35.9	47.6	36.7	56.7	53.1	60.2	55.3
Corrective maintenance	106.6	127.8	169.3	204.2	34.9	189.0	178.1	193.2	182.0	203.1	205.3	213.7	215.4
Labour	28.1	33.3	47.3	59.5	12.1	50.3	48.7	51.8	49.8	53.4	54.7	56.1	57.5
Contractors	11.0	6.1	15.0	2.8	(12.2)	15.0	6.9	15.4	7.0	15.8	16.2	16.6	17.0
Materials	6.9	13.5	15.0	23.1	8.1	15.0	23.0	15.4	23.4	15.8	16.2	16.6	17.0
Other	10.2	12.5	16.0	18.5	2.5	16.0	16.2	16.4	16.6	16.8	17.2	17.7	18.1
Local area support costs	21.8	24.0	16.8	27.4	10.6	27.7	20.6	28.5	21.0	29.4	30.1	30.8	31.6
Corporate support costs	12.3	24.4	35.3	44.7	9.4	37.7	37.6	38.9	38.4	40.0	41.0	42.1	43.1
Indirect costs	16.1	14.0	23.8	28.2	4.4	27.3	25.2	26.9	25.7	32.0	30.0	34.0	31.2
<i>Less</i> cost transfer to Lower Mary River bulk						(183.3)	(157.8)	(206.3)	(183.7)	(214.3)	(218.0)	(193.4)	(196.2)
Operating costs total	759.0	891.9	1132.5	1086.7	(45.8)	1090.1	945.3	1184.4	1049.0	1235.7	1253.7	1180.3	1195.0
Annuity-funded costs													
Labour			76.5	104.6	28.0	169.3	47.9	85.8	57.6	205.4	139.1	63.7	17.9
Contractors			167.6	58.5	(109.1)	490.3	138.7	197.1	132.4	431.9	347.6	182.6	36.3
Materials			187.7	46.0	(141.7)	327.2	92.6	165.7	111.3	378.2	303.8	198.8	49.8
Other			-	11.5	11.5	3.1	0.9	-	-	-	-	-	4.3
Local area support costs			28.7	47.4	18.7	84.0	23.7	45.3	30.4	108.1	73.4	33.2	10.0
Corporate support costs			57.1	81.5	24.4	127.0	35.9	64.3	43.2	154.0	104.3	47.8	13.4
Indirect costs			38.4	47.7	9.3	91.8	26.0	44.5	29.9	123.1	76.1	38.6	9.7
<i>Less</i> cost transfer to Lower Mary River bulk						(194.7)	(71.0)	(165.0)	(142.1)	(374.2)	(419.3)	(10.7)	(7.6)
Annuity-funded total <sup>1</sup>	231.1	383.5	556.2	397.3	(158.9)	1098.0	294.7	437.7	262.6	1026.5	624.9	554.1	133.9
Total costs <sup>2</sup>	990.1	1275.4	1688.7	1484.0	(204.7)	2188.2	1240.0	1622.1	1311.6	2262.2	1878.6	1734.4	1329.0

1. 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.

2. 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 Lower Mary River Distribution Service Contract in 2019/20 and the actual projects undertaken.

Project	Forecast \$'000	Actual \$'000	Commentary
Owanyilla pump station – Unit 2 pump, motor, discharge valve and suction valve (20LOW08 and 20LOW10)	231	83	The items were removed from service later in the financial year than planned due to continued irrigation demand. This resulted in less work being completed prior to the end of 2019/20. The project has subsequently been carried over into 2020/21.
Walker Point pump station – Control system, switchboard and cable replacements (Stage 1) (19LOW09)	159	131	The final aspects of the main and control switchboards were not completed during this phase of the three-year project. This work was included in the specification for the contractor which is scheduled for commencement in 2020/21.
Copenhagen Bend system – Pump 1 discharge valve and Pump 2 discharge valve and actuator refurbishments (20LOW02)	27	1	The pumps were not able to be taken offline until late in 2019/20 due to irrigation demand. The work is scheduled for completion in 2020/21.
Mains Road pump station – Options study (20LOW04)	8	11	This was the first stage of a multi-year project. The options studies were completed for slightly more than estimated.
Walker Point – Pump 1 discharge and non-return valve refurbishment (20LOW06)	28	34	The valves required more work to refurbish than anticipated.
Other works	104	95	Other works were completed within budget.
Non-scheduled works	-	43	Most of these costs related to a carryover of a project from 2018/19 to install a refurbished pump and motor (19LOW08). A shutdown was required to complete this work.
2019/20 Total	557	397	

# 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 (excluding Owanyilla pump station and main channel projects, refer to **Appendix 5**). 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	Project title	Project scope	Forecast \$'000
2020/21	Walker Point pump station – Control system, switchboard and cable replacements (Stage 2)	Equipment replacement to reinstate control system reliability, performance and supportability. Continuation of 2019/20 works.	332
	Walker Point main channel – Replace surge tank 36.72m	The surge tank is leaking through cracks in the concrete, to the extent that iron stains are evident. This indicates the steel reinforcement is corroding and weakening the tank's strength. Options and cost estimates have been assessed and it has been determined that replacement is the preferred solution.	296
	Copenhagen Bend – Replace flow meter sensors and control unit	The bulk flow meter from the pump station is inaccurate and needs to be replaced to assist in determining pump efficiencies. Understanding changes in pump capacity/efficiency can help reduce running costs and predict future maintenance requirements.	59
	Arc flash study	Recent changes to electrical guidelines included improved methods of calculating arc flash risks. Arc flash can cause serious burns to electrical staff if the correct personal protective equipment (PPE) is not worn. This study will recalculate the arc flash ranges to ensure the correct PPE and procedures are in place.	65
	Walker Point main channel – Regulating gate refurbishment	Regulating gate No. 1 on the main channel is in poor condition with corrosion and damaged seals. The gate will be re-painted and new seals attached to ensure optimum operation of the channel system.	39
	Other works	There are 10 other annuity-funded projects planned for 2020/21 plus a scheme contingency amount. The projects include: the installation of pump/motor/valve at the Main Road pump station; fence repairs in the Walker Point system; meter replacements across the scheme; bulkhead gate refurbishments at Copenhagen Bend pump station and pump 2 discharge valve refurbishment; and an options study to introduce a supervisory control and data acquisition (SCADA) system at Walker Point pump station.	172
	2020/21 Total		963
2021/22	Copenhagen Bend pump station – Switchboard, control and Programmable Logic Controller (PLC)/SCADA replacement (Stage 1)	Replacement works based on standard asset replacement life and obsolescence. This is the design and procurement stage, with installation to commence in 2022/23. Economic life assessments by independent companies confirm the need for this work in the next few years.	79
	Main Road pump station – Replace flow meter sensors and control unit	The bulk flow meter from the pump station is inaccurate and needs to be replaced to assist in determining pump efficiencies. Understanding changes in pump capacity/efficiency can help reduce running costs and predict future maintenance requirements.	82
	Walker Point pump station – Inlet suction screen replacement	The inlet screens at the pump station are in poor condition, allowing debris and excessive sediment to be drawn into the pumps. This project will replace the screens and desilt the inlet pipes, which should improve pump efficiency and reduce running costs.	64

Year	Project title	Project scope		
	Main Road pump station – Valve, pump and motor refurbishment	The outer casing of pump unit 1 is corroding and needs to be re-painted to maintain its life. While the pump is disconnected, it is prudent to perform maintenance on the motor and discharge valve, neither of which have had any significant maintenance for 20 years or more, rather than to plan for their refurbishment in the next few years.	53	
	Meter replacements	This is an allowance to replace customer meters if they fail during the year. If none are replaced, the funds will remain in the annuity.	27	
	Other works	There is one other annuity-funded project planned for 2021/22 consisting of the Walker Point Balancing Storage intake screen refurbishment due to corrosion.	18	
	2021/22 Total		323	
2022/23	Main Road pump station – Replace vacuum priming system	The system is very old, and components are starting to provide operational issues. These components are hard to replace due to their age (37 years). It is prudent to replace the main components of the system before they are unable to be procured.	43	
	Copenhagen Bend pump station – Switchboard, control and PLC/SCADA replacement (Stage 2)	Replacement works based on standard asset replacement life and obsolescence. This is the installation and commissioning stage. Economic life assessments by independent companies confirm the need for this work in the next few years.	649	
	Walker Point Balancing Storage – Outlet screen	The outlet screen is corroding and needs to be refurbished to extend its life.	26	
	Meter replacements	This is an allowance to replace customer meters if they fail during the year. If none are replaced, the funds will remain in the annuity.	28	
	Copenhagen Bend system- Isolation valve replacement	An isolation valve on C1 is starting to weep and needs to be replaced.	10	
	Other works	There are three other annuity-funded projects planned for 2022/23 consisting of fence and road refurbishments.	10	
	2022/23 Total		766	
2023/24	Main Road pump station – Cable, switchboard and controls replacement (Stage 1)	Design and procurement stage of the control system, cables and switchboard upgrade based on the outcome of the options analysis undertaken in 2019/20. These assets are beyond their standard lives with few spare parts available. They need to be replaced before failure occurs.	181	
	Copenhagen Bend system – Pump unit 2 refurbishment	Refurbishment planned based on standard life of five to six years. The pump was replaced in 2018. If it remains in good condition, the work will not proceed.	56	
	Meter replacements	This is an allowance to replace customer meters if they fail during the year. If none are replaced, the funds will remain in the annuity.	28	
	Walker Point pump station – Pump refurbishment	Pump units 1 and 3 will be removed and refurbished to ensure they operate effectively. These pumps are permanently submerged so need regular maintenance.	69	
	Other works	There are no other annuity-funded projects planned for 2023/24.	-	
	2023/24 Total		334	
2024/25	Main Roads – Cable, switchboard and controls replacement (Stage 2)	Installation and commissioning stage of the control system, cables and switchboard upgrade based on the outcome of the options analysis undertaken in 2019/20. These assets are beyond their standard lives with few spare parts available. They need to be replaced before failure occurs.	458	

Year	Project title	Project scope	Forecast \$'000
	Copenhagen Bend system – Pump unit 1 refurbishment	Refurbishment planned based on standard life of five to six years. The pump was replaced in 2018. If it remains in good condition, the work will not proceed. The condition of pump unit 2 in 2024 will help determine if this work can be deferred or not.	60
	Meter replacements	This is an allowance to replace customer meters if they fail during the year. If none are replaced, the funds will remain in the annuity.	29
	Other works	There are no other annuity-funded projects planned for 2024/25.	-
	2024/25 Total		547
2025/26	Meter replacements	This is an allowance to replace customer meters if they fail during the year. If none are replaced, the funds will remain in the annuity.	30
	Walker Point pump station – Pump unit 3 refurbishment	Pump unit 3 discharge and reflux valves will be refurbished as they are becoming difficult to operate. If funds allow, they will be refurbished at the same time as the pump refurbishment in 2023/24.	32
	Walker Point system – Fencing and road refurbishments	This is a small allowance for fencing and access road refurbishments in the Walker Point system.	19
	Scheme operation and maintenance (O&M) manuals	O&M manuals will be developed to allow easy transition when new operators start. There have also been several electrical upgrades in the previous few years and the new procedures need to be documented.	28
	Copenhagen Bend Balancing Storage – Screen and walkway replacement	The outlet screen and walkway will be replaced as they are starting to corrode.	19
	Other works	There are no other annuity-funded projects planned for 2025/26.	-
	2025/26 Total		128

# Appendix 5—Owanyilla pump station and main channel annuity-funded projects for 2020/21 to 2025/26

The below table sets out Sunwater's currently planned Owanyilla pump station and main channel annuity-funded projects for the 2020/21 to 2025/26 period. Customers in the Lower Mary River Distribution Service Contract contribute towards 41 per cent of the total project costs.

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	Project title	Project scope	Total forecast project cost \$'000	Distribution share of forecast project cost \$'000
2020/21	Owanyilla pump station – Replace flow meter sensors and control unit	The bulk flow meter needs to be replaced to assist in determining pump efficiencies. Understanding changes in pump efficiency can help reduce running costs and predict future maintenance requirements.	50	20
	Owanyilla pump station – Electrical control system design and procurement	Design and procurement stage of the control system upgrade based on the outcome of the 2019 options analysis. The control system is beyond its standard life with few spare parts available. It needs to be replaced before it fails.	56	23
	Owanyilla pump station – Pump unit No. 2	The pump, motor and suction valves on pump unit No. 2 were refurbished during 2019/20 but were not able to be re-installed by the end of the financial year. The discharge valve will also now be refurbished, and the complete unit reinstalled.	189	77
	Owanyilla pump station – Pump unit No. 1	The discharge valve on pump unit No. 1 will be refurbished based on current known condition—the external coating is starting to fail, and the seal is not providing adequate protection.	35	14
	Other works	There are no other annuity-funded projects planned for 2020/21.	-	-
	2020/21 Total		330	134
2021/22	Owanyilla pump station – Electrical control system replacement (Stage 1)	This is Stage 1 of the replacement works following the design and procurement phase in 2020/21. This will involve the initial supply of services and installation. Once the final design and procurement phase has been completed, typical supply and installation takes six to 12 months as the old and new system need to operate concurrently to allow continuity of supply.	248	102
	Main Road pump station – Electrical upgrade	The electrical reticulation system between the pump station and channel outlet to Teddington Weir has failed. This means it is not possible to measure discharges and flow rates to the weir.	32	13
	Other works	There are no other annuity-funded projects planned for 2021/22.	-	-

Year	Project title	Project scope	Total forecast project cost \$'000	Distribution share of forecast project cost \$'000
	2021/22 Total		280	115
2022/23	Owanyilla pump station – Electrical control system replacement (Stage 2)	This is Stage 2 of the replacement works to continue the installation and commissioning of the new electrical control system.	353	144
	Owanyilla pump station – Switchboard 2 replacement	This is Stage 1 of the low voltage switchboard replacement. Stage 1 will consist of options and design work.	244	100
	Owanyilla pump station – Inlet screen refurbishment	The inlet screens into the pump station are corroding and need to be removed and repainted with a protective coating to preserve and extend their life.	31	13
	Owanyilla pump station – High voltage (HV) testing	Sunwater's HV switchboard testing standard requires condition assessment and safety testing every three years to ensure the boards remain functional and safe for operators.	6	3
	Other works	There are no other annuity-funded projects planned for 2022/23.	-	-
	2022/23 Total		634	260
2023/24	Owanyilla pump station – Switchboard 2 replacement works (Stage 2)	Installation and commissioning of materials and equipment. This project will conclude the switchboard and control system activities at the pump station.	486	199
	Owanyilla pump station – Mains cable replacement	Cable replacement to be coordinated with switchboard and control system site works. Scope of works, timing and budget are subject to the 2019/20 options analysis.	183	75
	Owanyilla pump station – Switchboard 1 replacement works	The switchboard work includes installation and commissioning of materials and equipment. This project will be run in conjunction with the Switchboard 2 and cable replacement works.	43	17
	Other works	There are no other annuity-funded projects planned for 2023/24.	-	-
	2023/24 Total		712	291
2024/25	Owanyilla pump station	The only works at the pump station for 2024/25 are allowances for some minor access road and fencing refurbishments.	18	7
	2024/25 Total		18	7
2025/26	Owanyilla pump station	The only works at the pump station for 2025/26 is a project to review current operations and maintenance practices following the major electrical upgrades and develop an operating manual.	13	5
	2025/26 Total		13	5

## Contact us

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

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This Service and Performance Plan has been prepared by Sunwater to provide indicative information to our customers for the purpose of consultation. It contains estimates and forecasts which are based upon a number of assumptions. The actual financial performance of the service contract to which this plan relates, and the operations and activities actually undertaken by Sunwater during the relevant periods, may vary materially from the information contained in this plan. This plan should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this plan in making decisions about your circumstances. Sunwater will not be responsible or liable for any loss (including consequential loss), claim or damage (including in tort) that is in any way connected with the use of this plan or the information contained within it.