sunwater

Service and Performance Plan – 2020/21

Bundaberg Distribution Service Contract

This fact sheet details a range of proposed scheme activities and projects, and presents a breakdown of anticipated costs. It also compares Sunwater's actual costs for 2018/19 with our previous forecast for this scheme.

Highlights

Our performance in 2018/19

In our 2018/19 Network Service Plan (NSP) for the Bundaberg Distribution Service Contract,¹ we expected to spend \$11.51 million on routine costs and \$2.25 million on non-routine projects. Routine costs were above forecast, with periods of hot, dry weather leading to increased peak hour pumping and higher electricity costs. The non-routine program was delivered within budget.

Outlook for 2020/21

Routine costs (\$12.03 million) are expected to decrease slightly compared to what we previously forecast in last year's NSP (\$12.91 million in 2020/21).

Sunwater plans to spend approximately \$3.79 million on non-routine projects. This is higher than our previous forecast (\$2.83 million), primarily due to:

- additional costs to undertake input studies to inform the comprehensive risk assessment of Woongarra Balancing Storage
- higher than expected market (contractor) costs to complete the electrical upgrade of cables and all switchboards at Woongarra Balancing Storage.

Irrigation charges for 2020/21

On 10 February 2020, the Queensland Competition Authority (QCA) released its final recommendations on irrigation prices to be charged by Sunwater for the 2020/21 to 2023/24 price path period. The Queensland Government is currently considering the QCA's recommendations and will make a final decision and set Sunwater's irrigation prices.

Until this decision is made, Sunwater is unable to publish 2020/21 irrigation prices or compare our forecast costs against targets recommended by the QCA. Customers can access the QCA's recommended costs at: www.qca.org.au/project/rural-water/irrigation-price-investigations/

¹ See <u>www.sunwater.com.au/schemes/Bundaberg/</u>



Sunwater will publish irrigation prices for the Bundaberg Distribution Service Contract on our website as soon as practicable after the decision: www.sunwater.com.au/customer/fees-and-charges/

Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for the Bundaberg Distribution Service Contract. Table 1 below sets out our recent performance against selected service targets for this scheme.

Table 1 Service targets and performance

Comition bounds	Tours	Number of exceptions				
Service target		Target	2016/17	2017/18	2018/19	
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	72 hours	0	2	3	
Maximum number of interruptions ¹	Planned or unplanned interruptions per water year	10	8	15	16	

^{1.} This is the total number of distribution customers in the scheme that have been interrupted in excess of the target.

Water usage

The amount of water used in a scheme within a given year impacts operations and expenditure. Table 2 contains the scheme's water use for 2018/19, together with water use in recent years and the 17-year average for the 2002/03 to 2018/19 period.

Table 2 Water usage¹

Year	Usage (ML)
2014/15	101,563
2015/16	118,628
2016/17	134,817
2017/18	95,428
2018/19	161,167
17-year historical average	94,739

1. Includes water deliveries to Burnett Water Pty Ltd.



Routine expenditure

Routine (or annual) expenditure includes funds for operations activities (operations, electricity and insurance), preventative maintenance and corrective maintenance.

Table 3 Routine expenditure^{1,2,3}

	2016/17	2017/18				2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Bundaberg Distribution Service Contract	Sunwater Actual \$'000	Sunwater Actual \$'000	Sunwater Forecast \$'000	Sunwater Actual \$'000	Variance \$'000	Commentary	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operations	8728.9	7407.3	7770.9	10,141.5	2370.6		9221.5	8685.2	8904.3	9232.4	9467.6	9727.4
Labour	752.3	754.6	658.5	682.7	24.1		711.1	755.5	778.1	801.5	821.5	842.0
Contractors	45.7	17.9	25.0	15.1	(9.9)		25.0	25.0	25.6	26.3	26.9	27.6
Materials	7.4	14.9	10.0	28.3	18.3	Operational costs were higher than	12.0	15.0	15.4	15.8	16.2	16.6
Electricity	5728.9	4393.5	4528.0	6751.9	2223.9	anticipated due to an extended hot and dry	6027.8	5100.2	5227.7	5358.4	5492.3	5629.6
Insurance	766.9	708.3	747.7	755.7	8.0	period just before Christmas 2018 where	873.0	1047.6	1073.8	1100.6	1128.2	1156.4
Other	99.0	110.5	114.0	503.0	389.0	peak pumping was required in nearly all	280.5	293.5	293.0	296.3	322.9	328.8
Local area support costs	646.9	586.1	842.9	398.1	(444.8)	systems to keep up with customer demand.	242.1	397.1	423.4	539.6	520.3	508.5
Corporate support costs	256.5	335.6	428.0	659.9	231.9		509.8	566.6	583.6	601.1	616.1	631.5
Indirect costs	425.3	485.9	416.7	346.8	(69.9)		540.1	484.8	483.8	492.8	523.2	586.3
Preventative maintenance	2131.0	2136.4	2340.2	2244.4	(95.8)		2000.8	2059.4	2118.6	2241.1	2285.1	2362.2
Labour	554.4	548.2	499.5	593.6	94.1		505.5	519.3	534.9	551.0	564.7	578.9
Contractors	128.5	118.8	120.0	122.8	2.8	Preventative maintenance costs were lower	115.0	95.0	97.4	99.8	102.3	104.9
Materials	451.4	425.0	525.0	381.8	(143.2)	due to reduced acrolein treatments.	455.0	500.0	512.5	525.3	538.4	551.9
Other	79.0	56.6	52.0	45.1	(6.9)	Sunwater was unable to disrupt supply to	52.0	60.0	61.5	63.0	64.6	66.2
Local area support costs	475.5	427.6	639.3	343.0	(296.4)	customers because of extremely dry	183.4	252.9	274.0	351.3	335.8	328.8
Corporate support costs	187.8	243.8	324.7	520.5	195.9	conditions.	362.4	389.5	401.2	413.2	423.6	434.1
Indirect costs	254.4	316.3	179.8	237.6	57.8		327.4	242.7	237.1	237.4	255.7	297.4
Corrective maintenance	1020.6	1150.1	1399.2	1233.5	(165.7)		1232.5	1283.5	1321.2	1401.8	1428.5	1478.0
Labour	274.8	315.8	328.0	334.9	6.8		324.0	357.7	368.4	379.4	388.9	398.6
Contractors	75.7	2.3	20.0	31.3	11.3		20.0	18.0	18.5	18.9	19.4	19.9
Materials	111.3	106.1	150.0	116.8	(33.2)	The hot, dry season and increased water	150.0	135.0	138.4	141.8	145.4	149.0
Other	114.1	160.7	150.0	147.2	(2.8)	usage led to less corrective maintenance expenditure being incurred. There was also less desilting undertaken in 2018/19.	178.0	165.0	169.1	173.4	177.7	182.1
Local area support costs	226.2	246.3	419.9	221.0	(198.9)		118.3	172.4	187.2	240.2	229.3	224.6
Corporate support costs	92.0	136.6	213.2	239.0	25.8		232.3	268.2	276.3	284.6	291.7	299.0
Indirect costs	126.4	182.2	118.1	143.4	25.3]	209.9	167.2	163.3	163.5	176.1	204.8
Routine total	11,880.5	10,693.8	11,510.3	13,619.4	2109.1		12,454.8	12,028.2	12,344.1	12,875.3	13,181.1	13,567.6

^{1.} All financial figures are nominal. Figures may not sum due to rounding.

^{2.} Sunwater's 2020/21 to 2024/25 budget figures are draft as at the time of publication. These figures will not be locked down until late in the financial year prior.

^{3.} Excludes cost transfers to the Bundaberg Bulk Water Service Contract for a share of Gin Gin main channel's operations and maintenance costs.



Annuity balance and non-routine expenditure

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/rehabilitation of assets over a pre-determined period of time. The forecast annuity balances, and the impacts of budgeted non-routine spend, are shown in Table 4.

A comparison of forecast and actual non-routine projects for 2018/19 is provided in **Appendix 1**, with details of the major non-routine projects planned for the 2020/21 to 2024/25 period set out in **Appendix 2**.

Table 4 Annuity balance^{1,2}

Bundaberg Distribution Service Contract	2017/18 Actual \$'000	2018/19 Actual \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000	2024/25 Forecast \$'000
Annuity								
Opening balance ³	7033.6	7939.2	8783.2	8775.9	6960.9	5902.6	5705.1	4933.8
Non-routine spend ⁴	(1527.6)	(1826.2)	(2801.1)	(3785.4)	(3019.0)	(2156.6)	(2794.6)	(3848.8)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	121.5	133.0	-	-	-	-	-
Annuity contribution ⁵	1906.4	1954.1	2002.9	1586.7	1656.3	1701.1	1773.8	1816.2
Interest/financing costs	526.8	594.6	657.9	383.7	304.3	258.1	249.4	215.7
Sunwater – Closing Balance	7939.2	8783.2	8775.9	6960.9	5902.6	5705.1	4933.8	3116.9
QCA – Closing Balance	7939.2	8783.2	9034.9	9103.7	9800.9	9722.1	10,323.0	
Difference	-	-	259.0	2142.8	3898.3	4017.0	5389.2	

- 1. All financial figures are nominal. Figures may not sum due to rounding.
- 2. Excludes cost transfers to the Bundaberg Bulk Water Service Contract for a share of Gin Gin main channel's non-routine costs.
- 3. The opening balances for 2017/18, 2018/19 and 2019/20 reflect the QCA's irrigation price investigation 2020–24 final recommendations and differ to previous opening balances published by Sunwater.
- 4. The non-routine spend for 2017/18 and 2018/19 reflects the QCA's irrigation price investigation 2020–24 final recommendations, which included adjustments to Sunwater's actual costs. From 2019/20, the non-routine spend is based on Sunwater's forecasts.
- 5. 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 irrigation price investigation 2020–24 final recommendations. The forecast annuity contribution for 2024/25 has been calculated by applying CPI to the 2023/24 annuity contribution.



Appendix 1: Comparison of forecast and actual non-routine projects for 2018/19

The below table sets out the major non-routine projects planned for the Bundaberg Distribution Service Contract in 2018/19 and the actual projects undertaken.

Project	Forecast \$'000	Actual¹ \$'000	Commentary
Woongarra pump station – High voltage (HV) and low voltage (LV) switchboards, control systems/Supervisory Control and Data Acquisition (SCADA) and mains cabling replacement	386	145	A portion of the works was deferred to future years as a result of a change to the delivery strategy.
Meter replacements	316	334	More failed meters required replacement than forecast.
Quart Pot pump station – Pump 1 motor and discharge valve, pump 2 discharge valve, pump 3 pump and motor starter works	273	320	The condition of the infrastructure was worse than forecast, requiring additional work to be undertaken.
Monduran, North Gregory, Abbotsford and Tirroan pump stations – Control/switchboard and cable refurbishment works	193	2	A further assessment concluded that proceeding with the works at this stage would not be prudent or efficient.
Meter replacements – Gooburrum and Abbotsford pump stations bulk water flow meters	143	60	Sunwater used a different type of meter installation which reduced costs.
Bullyard pump station – Refurbish pump unit 1 pump, discharge and non-return valve	103	48	The scope of work was reduced, with parts of the works deferred to future years.
Don Beattie pump station – Refurbish pump unit 3 and suction valve	96	183	The condition of the infrastructure was worse than forecast, requiring additional work to be undertaken.
Isis balancing storage	93	141	Site conditions resulted in costs greater than forecast.
Meter replacements – Monduran pump station bulk water flow meter	89	32	Sunwater used a different type of meter installation which reduced costs.
Monduran pump station	54	68	
Other works	502	323	Some funds were reassigned to non-scheduled works.
Non-scheduled works	-	302	Various repairs and maintenance work were required due to equipment failure and identified safety hazards. Some projects were brought forward from future years.
2018/19 Total ²	2248	1957	

^{1.} Actual costs incurred by Sunwater. This figure differs to the 2018/19 non-routine spend in Table 4, which has been adjusted to reflect the QCA's irrigation price investigation 2020–24 final recommendations. The QCA has used the adjusted figure in Table 4 to calculate its final recommended irrigation prices for 2020–24.

^{2.} All financial figures are nominal. Figures may not sum due to rounding.



Appendix 2: Non-routine projects for 2020/21 to 2024/25

The below table sets out Sunwater's currently planned non-routine projects for the 2020/21 to 2024/25 period for this scheme. While the 2020/21 program is well defined, estimates become more uncertain further into the planning timeline. Forecasts are likely to change in future Service and Performance Plans, reflecting changes in project delivery timing; asset condition and risk updates; outcomes from scheduled asset inspections; and customer feedback.

Year	Project title	Project scope	Budget (\$'000 nominal)
2020/21	Flow meter replacements	Replacement of failed flow meters at Woongarra, Bucca, Tirroan, Bullyard, Dinner Hill, North Gregory and McIlwraith pump stations to assist with water distribution.	411
	McIlwraith pump station	Refurbishment of Pump Unit 2 pump, motor, discharge, suction and non-return valves.	74
	Bullyard pump station	Selective refurbishment of pumps, motors, valves and actuators across all four pumps to ensure ongoing optimal performance; and options and design of cable and LV switchboard replacement. Based on known condition of the assets.	216
	Woongarra Balancing Storage – Comprehensive risk assessment (CRA)	A CRA is conducted with new information to assess the level of risks identified and further refine their priority for refurbishment.	178
	Meter replacements	This is an allowance to replace failed customer meters in the entire scheme. If meters are not replaced, the funds will remain in the annuity.	345
	Woongarra pump station	Continuation of the electrical upgrade of cables and all switchboards.	1281
	Woongarra Balancing Storage – CRA inputs	The CRA relies on current and accurate data upon which to conduct the risk assessments. In this case, updated geotechnical, hydrological, stability and failure consequence assessments will be conducted to inform the full level of societal risk.	185
	North Gregory pump station	Flow meter replacement and refurbishment of Pump Unit 1 pump.	20
	Don Beattie pump station	Deformation survey to determine if the rising main and break pressure structure are moving or not.	15
	Quart Pot Creek pump station	Pump Unit 4 pump, motor, discharge valve and actuator refurbishment based on current known condition.	174
	Isis Balancing Storage	Seismic, stability, and geotechnical studies to inform the CRA. These studies can reduce the scope of works under the Sunwater Dam Improvement Program, so it is prudent they are completed.	180
	Monduran pump station	Refurbishment of pump, motor, suction, discharge and non-return valves on Pump Unit 1 based on current known condition. None of these units have previously been refurbished.	242



Year	Project title	Project scope	Budget (\$'000 nominal)
	Other works	The balance of the 2020/21 program consists of regulating gate refurbishments; fencing improvements; and other minor works.	463
	2020/21 Total		3784
2021/22	Meter replacements	This is an allowance to replace failed customer meters in the entire scheme. If meters are not replaced, the funds will remain in the annuity.	354
	Bucca pump station – Cable and switchboard replacement; and motor starter replacement	Design and procurement stage of the cable and switchboard replacement based on the outcome of the 2020 options study. The motor starters on Units 1 and 2 will also be replaced, and some minor building works will occur.	295
	Bullyard pump station	Continuation of the cable replacement based on the 2021 options study. Also, refurbishment of Pump Unit 3 pump, motor, discharge and non-return valves based on current known condition.	642
	Abbotsford pump station – Switchboard	The switchboard at Abbotsford pump station is coming towards the end of its life, so it is prudent to fully assess its condition and prepare options for replacing it with a modern equivalent if needed. The design and procurement stage will also occur in 2022 if replacement or refurbishment is recommended.	177
	Gooburrum pump station – Switchboard and cabling	The switchboard and cabling at Gooburrum pump station are coming towards the end of their life, so it is prudent to fully assess their condition and prepare options for replacing them with a modern equivalent if needed. The design and procurement stage will occur in 2023 if replacement or refurbishment is recommended.	29
	Woongarra System	Refurbishment of regulating gate 9 and bulkhead guides at the bench flume; a comprehensive inspection of the balancing storage to comply with the Queensland Dam Safety Condition Schedule; and some minor fencing repairs along the main channel.	115
	Monduran pump station	Refurbishment of Pump Unit 2 pump, non-return, discharge and suction valves; and installation of power correction factors or variable speed drives on the pumps.	917
	Isis Balancing Storage	Review of the CRA to identify hazards and prioritise the recommendations to address them; and a comprehensive dam safety inspection in accordance with the Queensland Dam Safety Condition Schedule.	216
	Other works	The balance of the 2021/22 program consists of motor, pump and valve works at other pump stations; screen and gate refurbishments on channels and storages; and other minor works.	274
	2021/22 Total		3019



Year	Project title	Project scope	Budget (\$'000 nominal)	
2022/23	Abbotsford pump station – Switchboard	This is the installation and commissioning phase of the switchboard replacement, based on the options and design from 2022.	78	
	Gooburrum pump station	Pump Unit 2 pump, motor, suction and discharge valve refurbishment based on current known condition; HV testing; and electric cable and switchboard replacement based on 2022 works.	560	
	Woongarra pump station	Pump Unit 3 pump, suction and discharge valve refurbishments based on current known conditions; and HV testing which is done every three years in accordance with Sunwater standards.	65	
	Quart Pot Creek pump station Programmable Logic Controller (PLC) and SCADA installation based on the 2018/19 options analysis; HV testing every three years in accordance with Sunwater's standards; Pump Unit 3 discharge valve refurbishment based on current known condition; and Switchboard 2 replacement options study as it is coming towards the end of its life.			
	Don Beattie pump station	HV testing every three years in accordance with Sunwater's standards; Switchboard 2 replacement options study as it is coming towards the end of its life; and meter compliance and accuracy tests.	47	
	Gin Gin System	Pump Unit 4 discharge and suction valve refurbishments based on current known condition; Switchboard 2 replacement options study as it is coming towards the end of its life; HV testing at Monduran pump station in accordance with Sunwater's standards; and minor fencing repairs.	171	
	Meter replacements	This is an allowance to replace failed customer meters in the entire scheme. If meters are not replaced, the funds will remain in the annuity.	366	
	Bullyard pump station	Pump Unit 4 discharge, non-return valves, actuator and pump refurbishment.	131	
	Other works	The balance of the 2022/23 program consists of air conditioner replacements; regulating gate and weed screen refurbishments; meter replacements; and other minor works.	404	
	2022/23 Total		2156	
2023/24	Bullyard pump station	Refurbishment of suction valves on all pumps, and refurbishment of discharge and non-return valves on Pump Unit 1.	171	
	Bingera System	Concrete channel repairs; regulating gate refurbishment on gate 1 on Bingera main channel; refurbishing submerged disk valve on break pressure structure 2; refurbishment of inlet and outlet gates on a reservoir; and customer meter replacements.	194	
	Bucca pump station	Refurbishment of the pump, discharge, non-return and suction valves on Pump Unit 2.	84	
	Gooburrum pump station	Switchboard and cable replacements; and air receiver replacement.	677	



Year	Project title	Project scope	Budget (\$'000 nominal)
	Gooburrum System	Refurbishment of regulating gate 1; refurbishment or replacement of Bullyard storage inlet and outlet gates; Moore Park 1 inlet screen replacement; weed screen replacement on ACO2 on Moore Park main channel; and customer meter replacements.	139
	Woongarra System	Pump Unit 4 pump and motor refurbishment based on current known condition; Pump Unit 1 suction valve refurbishment; 20-year dam safety review of Woongarra Balancing Storage in accordance with the Queensland Dam Safety Condition Schedule; regulating gate refurbishments; and other minor works.	487
	Don Beattie pump station	Pump Unit 2 pump, motor and suction valve refurbishment based on current known condition, and other minor works.	286
	North Gregory pump station	Cable and switchboard options study; and Pump Unit 2 non-return valve, discharge and pump refurbishment.	72
	Isis Balancing Storage	20-year dam safety review in accordance with the Queensland Dam Safety Condition Schedule.	329
	Monduran pump station	Refurbishment of the control system at Monduran pump station (PLC, monitors) to maintain continuity of supply.	125
	Other works	The balance of the 2023/24 program consists of fencing upgrades; meter replacements; pump refurbishments; and minor electrical works.	231
	2023/24 Total		2795
2024/25	Bingera System	Refurbishment or replacement of customer meters; channel fencing; break pressure structure metal work replacement; and screen replacements on balancing storages.	213
	Don Beattie pump station	HV switchboard design, procurement and replacement; LV switchboard replacement; fire alarm replacement; rising main survey; suction and delivery line blast and paint; inlet screen refurbishment; and general building maintenance.	1500
	Woongarra pump station	Pump Unit 5 pump and motor refurbishment; and cooling water system replacement on Pump Units 1 to 3.	278
	Walker Street pump station	Pump Unit 4 motor, suction and discharge valve refurbishment; general building maintenance; and SCADA computer replacement.	84
	Quart Pot Creek pump station	Electric cable and HV switchboard replacement; LV switchboard refurbishment; general building maintenance; and common control refurbishment.	610
	Bucca pump station	Pump Unit 1 suction, discharge and non-return valve refurbishment.	55



Year	Project title	Project scope	Budget (\$'000 nominal)
	Tirroan pump station	General building maintenance and electric cable replacement.	119
	North Gregory pump station	LV switchboard replacement and electric cabling design and procurement.	72
	Monduran pump station	Switchboard 1 and 2 refurbishments; and SCADA computer replacement.	115
	Woongarra System	Regulating gate refurbishments; meter replacements; fencing work; and gate and guide refurbishments in the channel system.	400
	Gooburrum System	Regulating gate refurbishments; meter replacements; fencing work; and gate and guide refurbishments in the channel system.	187
	Other works	The remainder of the works include meter replacements; fencing refurbishments; channel screen, gate and guide refurbishments; and minor electrical works.	216
	2024/25 Total		3849



Contact us

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

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