Service and Performance Plan – 2020/21

Burdekin Haughton Bulk Water 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 forecasts for this scheme.

Highlights

Our performance in 2018/19

In our 2018/19 Network Service Plan (NSP) for the Burdekin Haughton Bulk Water Service Contract,[1] we expected to spend $3.42 million on routine costs and $1.20 million on non-routine projects.

Routine corrective maintenance costs were higher than forecast due to repairs to infrastructure accesses and river infrastructure post the February 2019 monsoon event. Unbudgeted expenses were also incurred to transport sewage waste offsite to ensure compliance with environmental regulations. As a result of these unplanned corrective works, fewer labour hours were spent on operational activities and actual operational costs were below forecast.

The 2018/19 non-routine program was largely completed, except for works on Clare Weir. Significant corrosion on the upstream rail of the gantry crane access was identified during an inspection of Clare Weir in June 2018. This corrosion rendered the gantry crane inoperable for safety reasons. The inability to safely access the weir caused planned refurbishment on the hydraulic cylinders that operate the weir gates to be deferred to 2019/20, pending replacement of the gantry crane rail. Procurement of a contractor to replace the rail has been completed and replacement works are scheduled for the annual scheme shutdown in June 2020.

Outlook for 2020/21

Routine costs ($2.97 million) are expected to increase slightly compared to what we previously forecast in last year's NSP ($2.89 million in 2020/21).[2]

Sunwater plans to spend approximately $1.29 million on non-routine projects, which is higher than our previous forecast ($0.90 million). This is due to the following new projects:

- civil and mechanical works at Clare Weir

[1] See www.sunwater.com.au/schemes/Burdekin-Haughton/

[2] Excluding routine recreational facility costs.

- replacing corroded steel street light poles and lighting fixtures at Burdekin Falls Dam
- refurbishing the bulkhead gate at Burdekin Falls Dam.

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/

Sunwater will publish irrigation prices for the Burdekin Haughton Bulk Water 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 Burdekin Haughton Bulk Water Service Contract. Table 1 below sets out our recent performance against selected service targets for this scheme.

Table 1 Service targets and performance

Service target		Target	Number of exceptions		
			2016/17	2017/18	2018/19
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	8 weeks	0	0	0
	For shutdowns planned to exceed 3 days	2 weeks	0	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0	0
Unplanned shutdowns – duration[1]	Unplanned shutdowns during Peak Demand Period	48 hours	0	0	0
	Unplanned shutdowns outside Peak Demand Period	5 working days			
Maximum number of interruptions[2]	Planned or unplanned interruptions per water year	10	0	0	0

1. This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.
2. This is the total number of bulk 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 usage

Year	Usage (ML)
2014/15	801,910
2015/16	680,578
2016/17	581,308
2017/18	637,316
2018/19	524,103
17-year historical average	**596,673**

Routine expenditure

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

Table 3 Routine expenditure[1,2]

Burdekin Haughton Bulk Water Service Contract	2016/17	2017/18	2018/19				2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
	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	2005.8	1845.5	2577.1	2220.0	(357.1)		2514.6	2545.1	2628.6	2709.9	2783.7	2862.1
Labour	270.5	240.8	340.4	370.3	29.9	The forecast allocation of resource hours between operations, preventative maintenance and corrective maintenance differed from actual hours worked. Of note, more resources were required to undertake corrective maintenance due to sewage works and repairs after the February 2019 monsoon event.	325.4	303.8	312.9	322.3	330.3	338.6
Contractors	36.9	66.4	50.0	61.6	11.6		60.0	55.0	56.4	57.8	59.2	60.7
Materials	12.1	13.4	20.0	23.9	3.9		20.0	20.0	20.5	21.0	21.5	22.1
Electricity	101.8	(0.7)	110.0	5.4	(104.6)		126.3	111.5	114.2	117.1	120.0	143.5
Insurance	789.7	721.2	765.6	773.7	8.1		889.7	1067.6	1094.3	1121.7	1149.7	1178.5
Other	229.2	275.6	279.0	93.7	(185.3)		317.5	282.8	290.1	296.7	304.9	312.8
Local area support costs	232.5	175.6	420.7	311.7	(109.0)		175.4	176.5	197.1	219.1	222.1	191.1
Corporate support costs	129.1	141.6	221.3	332.7	111.4		233.2	227.8	234.7	241.7	247.8	253.9
Indirect costs	203.8	211.6	370.1	247.1	(123.0)		367.1	300.1	308.4	312.6	328.0	360.8
Preventative maintenance	535.0	486.4	509.9	518.2	8.3		495.6	475.8	495.4	512.2	527.3	535.5
Labour	138.7	93.5	110.4	119.0	8.6	Actual expenditure on preventative maintenance was broadly in line with forecasts.	113.8	122.2	125.8	129.6	132.8	136.2
Contractors	130.6	177.3	100.0	129.3	29.3		100.0	90.0	92.3	94.6	96.9	99.3
Materials	11.6	17.4	12.0	5.0	(7.0)		14.0	12.0	12.3	12.6	12.9	13.2
Other	6.1	8.1	9.0	11.4	2.4		10.0	13.0	13.3	13.7	14.0	14.3
Local area support costs	119.3	72.8	141.4	95.0	(46.3)		71.3	70.9	80.3	88.8	90.3	77.2
Corporate support costs	46.2	46.6	71.8	97.5	25.8		81.6	91.6	94.4	97.2	99.6	102.1
Indirect costs	82.4	70.7	65.3	60.9	(4.4)		104.9	76.1	77.0	75.8	80.7	93.0
Corrective maintenance	282.5	405.6	333.3	923.2	589.9		331.7	429.2	446.2	461.2	474.4	481.7
Labour	33.4	63.0	60.0	86.2	26.2	As above, additional resource hours were diverted from operations. Sewage waste needed to be transported offsite to ensure compliance with environmental regulations (approx. $280k). Repairs were also required at Clare Weir, including repairing accesses and removing sand from the fishlock.	55.3	94.0	96.8	99.7	102.2	104.7
Contractors	148.7	182.6	90.0	561.6	471.6		110.0	110.0	112.8	115.6	118.5	121.4
Materials	28.1	15.8	24.0	41.6	17.6		30.0	27.0	27.7	28.4	29.1	29.8
Other	5.3	12.2	8.0	28.8	20.8		11.0	15.0	15.4	15.8	16.2	16.6
Local area support costs	28.7	49.1	76.8	75.1	(1.7)		34.7	54.3	61.8	68.8	69.9	59.1
Corporate support costs	18.4	35.1	39.0	77.2	38.2		39.7	70.5	72.6	74.8	76.6	78.5
Indirect costs	19.8	47.7	35.5	52.5	17.1		51.0	58.5	59.2	58.3	62.0	71.6
Routine total	**2823.2**	**2737.4**	**3420.3**	**3661.4**	**241.2**		**3341.9**	**3450.1**	**3570.2**	**3683.2**	**3785.5**	**3879.3**
Recreational facility costs[3]	Recreational facility costs are included in the above line items, as irrigation customers previously contributed towards them.							483.6	494.0	506.0	518.2	531.1
Routine total (excl. recreational facility costs)								**2966.5**	**3076.2**	**3177.3**	**3267.3**	**3348.1**

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. From 1 July 2020, irrigation customers will no longer contribute towards the costs of operating and maintaining recreational facilities. Forecast costs have been separately identified for transparency.

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**. A large proportion of expenditure over the period relates to the hydraulic system upgrade at Clare Weir.

Table 4 Annuity balance[1]

Burdekin Haughton Bulk Water 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[2]	6647.4	6940.7	7190.0	6642.2	6819.4	7446.6	8391.8	9175.9
Non-routine spend[3]	(815.9)	(897.2)	(1728.7)	(1286.6)	(878.8)	(668.7)	(973.6)	(1342.4)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[4]	611.3	626.6	642.3	1173.4	1207.9	1288.3	1390.8	1424.0
Interest/financing costs	497.9	519.9	538.5	290.4	298.2	325.6	366.9	401.2
Sunwater – Closing Balance	**6940.7**	**7190.0**	**6642.2**	**6819.4**	**7446.6**	**8391.8**	**9175.9**	**9658.7**
QCA – Closing Balance	**6940.7**	**7190.0**	**6797.8**	**7378.6**	**8077.0**	**9053.8**	**9881.9**	
Difference	-	-	155.6	559.2	630.4	662.0	706.0	

1. All financial figures are nominal. Figures may not sum due to rounding.
2. 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.
3. 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.
4. 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 Burdekin Haughton Bulk Water Service Contract in 2018/19 and the actual projects undertaken.

Project	Forecast $'000	Actual[1] $'000	Commentary
Clare Weir – Hydraulic system upgrade (Stage 2)	608	193	Gantry modifications (18BDK05) were completed as per forecast. Stage 2 works (19BDK01) on the refurbishment of the hydraulic system were delayed due to a requirement to replace the corroded upstream gantry rail to ensure safe access and river conditions/height during the annual shutdown.
Burdekin Falls Dam – 20-year dam safety review (18BDK08)	143	130	Project work was planned over two financial years (2018/19 and 2019/20). Consultancy work for 2018/19 had a delayed start due to procurement issues resulting in a small portion of the 2018/19 work carrying over into 2019/20.
Burdekin Falls Dam – Transformer installation x2 (18BDK06/07)	244	216	Transformers were replaced within budget, with minor works (e.g. finalise amended drawings) carried into 2019/20 to complete installation.
Clare Weir – Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) upgrade (15BDK49)	84	129	Work was completed, with additional contractor costs and internal labour required due to an increase in scope and weather delays.
Other works	122	69	The Clare Weir deformation survey (18BDK02) was deferred to 2020/21 based on the 2018 weir inspection. All other works were completed as per forecast (+/-).
Non-scheduled works	-	208	The following non-scheduled works were undertaken: • Studies, design and procurement for the replacement of the upstream gantry rail at Clare Weir (19BDK06). No site work was completed due to river conditions during the annual shutdown. • Refurbishment of the sludge lagoons at Burdekin Falls Dam (19BDK07). The existing lagoons were merged and lined to create an effluent evaporation pond.
2018/19 Total[2]	**1201**	**945**	

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	Clare Weir – Hydraulic system upgrade (Stage 4)	The Clare Weir hydraulic system has been underperforming for many years, mainly due to design inefficiencies. This is Stage 4 of a multi-year project to redesign and improve the hydraulic system.	323
	Burdekin Falls Dam – Penstock liner refurbishment	Planned refurbishment of the three steel penstocks to address coating loss and potential corrosion issues.	178
	Clare Weir – Civil and mechanical works	Reinstatement of downstream rock protection assets, replacement of battery charger system and scheduled monolith deformation survey.	112
	Burdekin Falls Dam – Permanent services	Replace corroded steel street light poles and lighting fixtures to retain function and road safety.	123
	Burdekin Falls Dam – Main wall light and power refurbishment	Planned replacement and refurbishment of aged hardware and equipment, condition assessment and prioritised works.	94
	Burdekin Falls Dam – Bulkhead gate	Refurbish bulkhead gate coating system, seals and retaining plates to retain service life and function.	79
	Burdekin Falls Dam – Dissipator blocks and slab	Dam safety inspections have identified the erosion or loss of dissipator blocks and erosion of the impact slabs in the outlet works discharge channel.	71
	Burdekin Falls Dam – Distribution board	Replace faulty main wall distribution board components.	49
	Clare Weir – Failure Impact Assessment (FIA)	To be undertaken based on 2018 FIA Guidelines update.	39
	Other works	The balance of the 2020/21 program of works includes, among others, fire suppression testing at Burdekin Falls Dam, an asset revaluation, river customer meter replacements and a contingency amount for unplanned capital replacements.	219
	2020/21 Total		**1287**
2021/22	Clare Weir – Hydraulic system upgrade (Stage 5)	The Clare Weir hydraulic system has been underperforming for many years, mainly due to design inefficiencies. This is Stage 5 of a multi-year project to redesign and improve the hydraulic system.	429

Year	Project title	Project scope	Budget ($'000 nominal)
	Burdekin Falls Dam – Comprehensive inspection	Sunwater conducts comprehensive inspections on our dams every five years. This allows us to maintain current knowledge of the asset condition and risks, so projects can be brought in and deferred as needed to maintain the asset in serviceable condition. This is a requirement of the dam safety condition schedule for Burdekin Falls Dam.	115
	Burdekin Falls Dam – Road refurbishment	The internal roads at the dam are deteriorating. This project will reseal them, fill potholes and improve drainage.	90
	Burdekin Falls Dam – Patch paint baulks	Twelve baulks will be removed, and patch painted to maintain overall condition of the assets.	72
	Clare Weir – Comprehensive inspection	Sunwater conducts comprehensive inspections on our weirs every five years. This allows us to maintain current knowledge of the asset condition and risks, so projects can be brought in and deferred as needed to maintain the asset in serviceable condition.	50
	Burdekin Falls Dam – Battery charger	Replace standby generator battery charger system due to age and obsolescence to retain function and serviceability.	61
	Burdekin Falls Dam – Gallery lighting bus-duct	Refurbish lower and upper gallery lighting bus-duct system to reinstate reliable and effective lighting system.	45
	Other works	River customer meter replacements.	16
	2021/22 Total		**878**
2022/23	Clare Weir – Hydraulic system upgrade (Stage 6)	The Clare Weir hydraulic system has been underperforming for many years, mainly due to design inefficiencies. This is Stage 6 of a multi-year project to redesign and improve the hydraulic system.	514
	Burdekin Falls Dam – Patch paint baulks	Twelve baulks will be removed, and patch painted to maintain overall condition of the assets.	74
	Gorge Weir – Comprehensive inspection	Sunwater conducts comprehensive inspections on our weirs every five years. This allows us to maintain current knowledge of the asset condition and risks, so projects can be brought in and deferred as needed to maintain the asset in serviceable condition.	25
	Other works	The balance of the 2022/23 program of works includes river customer meter replacements, Clare Weir light and power works, and other minor works.	56
	2022/23 Total		**669**
2023/24	Clare Weir – Hydraulic system upgrade (Stage 7)	The Clare Weir hydraulic system has been underperforming for many years, mainly due to design inefficiencies. This is Stage 7 of a multi-year project to redesign and improve the hydraulic system.	348
	Clare Weir – Access road refurbishment	This is an allowance to refurbish the left and right-bank access roads and ramps at Clare Weir. A condition assessment in 2022/23 will determine if this work will proceed.	191

Year	Project title	Project scope	Budget ($'000 nominal)
	Burdekin Falls Dam – Ventilation fan replacement	This is an allowance to replace the upper and lower ventilation fans and systems at the dam. A condition assessment in 2022/23 will determine if this work will proceed.	113
	Clare Weir – Outlet works hydraulics	Hydraulic power pack overhaul to ensure reliable flow regulation.	85
	Burdekin Falls Dam – Patch paint baulks	Twelve baulks will be removed, and patch painted to maintain overall condition of the assets.	76
	Clare Weir – Refurbish ladders, walkways and handrails	This is an allowance to refurbish ladders, walkways and handrails at Clare Weir. A condition assessment in 2022/23 will determine if this work will proceed.	53
	Burdekin Falls Dam – Long haul gantry crane	Long travel drive units and electricals require timed overhaul to ensure continued reliable operation.	42
	Other works	The balance of the 2023/24 program of works includes river customer meter replacements and minor generator, air filter and control works at Burdekin Falls Dam.	66
	2023/24 Total		**974**
2024/25	Clare Weir – Hydraulic system upgrade (Stage 8)	The Clare Weir hydraulic system has been underperforming for many years, mainly due to design inefficiencies. This is Stage 8 of a multi-year project to redesign and improve the hydraulic system.	422
	Burdekin Falls Dam – Gantry crane	Refurbish gantry crane cabling, lighting and power, limit switches and braking system due to condition, to retain function and safety.	195
	Clare Weir – Uninterruptible power supply (UPS) and controls	Replace Clare Weir UPS system, auto-dialler, telephone and surge protection system to retain control and supportability.	109
	Clare Weir – Outlet works	Refurbish outlet works conduits. Work scope and timing will be subject to condition assessment by underwater inspection (included in this project).	134
	Burdekin Falls Dam – Fire system	Replace fire detectors, siren and call points based on service life and serviceability.	61
	Clare Weir – Hydraulic cylinders	Replace flap gate hydraulic cylinders (items 1 to 4) with new units and refurbish old units as rotatable spares.	70
	Clare Weir – Fishway	Refurbish fishway attraction, drain and filling line valves to retain function and serviceability.	58
	Burdekin Falls Dam – Outlet works	Refurbish radial gate lifting and locking hydraulic cylinders to ensure continued reliable control of dam releases.	39
	Burdekin River – Gauging station	Replace gauging station (GS 120016A) based on service life to ensure continued reliable flood and regulated release streamflow information.	40

Year	Project title	Project scope	Budget ($'000 nominal)
	Gorge Weir – Protection works	Refurbish downstream left abutment dental concrete protection works subject to 2022/23 comprehensive inspection.	34
	Clare Weir – Distribution board	Replace switchboard No. 2 based on service life to retain serviceability. Timing and scope of works to be subject to a condition assessment.	27
	Burdekin Falls Dam – Standby generator	Scheduled refurbishment of standby generator to ensure continued reliable operation.	20
	Other works	The balance of the 2024/25 program of works includes, among others, river customer meter replacements, minor Clare Weir and fishlock electrical/mechanical equipment replacements, and inlet screen refurbishments.	133
	2024/25 Total		**1342**

Contact us

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