

2019/20 to 2023/24 Network Service Plan Fact Sheet

Barker Barambah Bulk Water Service Contract

This fact sheet details a range of proposed immediate and longer-term improvement projects, and presents a breakdown of anticipated costs. It also provides a summary of changes provided to the Queensland Competition Authority (QCA) during the current irrigation price review process for new prices commencing on 1 July 2020.

Summary of key changes

On 6 November 2018, Sunwater provided a comprehensive submission to the QCA's review of irrigation prices for the 2021–24 period. We have since updated our forecast costs to reflect changes to underlying inputs, including:

- a revised non-routine program of works, based on the latest available information (eg condition and risk data)
- a greater focus on direct charging of labour to service contracts and the splitting of local area support costs to better align with where the costs are incurred
- an increase in insurance premiums, to align with current market conditions and a revalued insurance asset base
- a small reduction in total Inspector-General Emergency Management (IGEM) costs and a change in the way these costs are allocated to service contracts with referable dams, from a purely risk-based approach to one that allocates costs on an equal-share basis and risk. IGEM costs are approximately \$89,000 for this service contract in 2019/20.
- revised electricity escalators, which take into account more detailed site information including updated consumption data and current retail tariffs. For sites on transitional or obsolete regulated retail electricity tariffs that cease on 30 June 2020¹ or 30 June 2022, Sunwater has also corrected the year in which the step change increase is applied.
- using the scheme's 16-year average water usage over the 2002/03 to 2017/18 period to determine the Part B cost per megalitre.

These changes have been reflected in this Network Service Plan (NSP) fact sheet and Sunwater's June 2019 regulatory model, which is available at: <https://www.sunwater.com.au/customer/fees-and-charges/water-pricing-review/>.

For additional information on Sunwater's cost categories and Cost Allocation Methodology, please refer to the 2018/19 NSPs at: <https://www.sunwater.com.au/customer/products-and-services/network-service-plans/>.

¹ The Queensland Government subsequently announced that customers would have until 30 June 2021 to move to standard electricity tariffs. Due to the timing of this announcement, this extension has not been reflected in our modelling.

Irrigation charges for 2019/20

The 2019/20 charges and cost per megalitre are shown in **Table 1**. The Barker Barambah Bulk Water Service Contract is not expected to fully recover irrigation’s share of costs. For the full suite of charges that apply, refer to Sunwater’s website.

Table 1: Irrigation charges for 2019/20

Product	Charge type	2019/20 (\$/ML)	Cost (\$/ML) ^{1,2}	Subsidy (\$/ML)
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon allocation)	25.93	31.47	5.54
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon actual usage)	4.60	9.72	5.12

1. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any capital returns on existing assets.
2. The notional High Priority Allocation Charge cost per megalitre is \$117.40.

Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for the Barker Barambah Bulk Water Service Contract. **Table 2** below sets out our performance in 2016/17 and 2017/18 against selected service targets.

Table 2: Service targets and performance

Service target		Target	Number of exceptions	
			2016/17	2017/18
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	8 weeks	0	0
	For shutdowns planned to exceed 3 days	2 weeks	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0
Unplanned shutdowns – duration	Unplanned shutdowns will be fixed so that at least partial supply can be resumed	48 hours	0	0
Maximum number of interruptions	Planned or unplanned interruptions per water year	6	0	0

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}

Barker Barambah Service Contract	2015/16			2016/17			2017/18 ³		2018/19 ³		2019/20	2020/21	2021/22	2022/23	2023/24
	Sunwater Actual \$'000	QCA Recommended \$'000	Variance \$'000	Sunwater Actual \$'000	QCA Recommended \$'000	Variance \$'000	Sunwater Estimate ⁴ \$'000	2016/17 QCA Recommended (Adjusted) \$'000	Sunwater Forecast \$'000	2016/17 QCA Recommended (Adjusted) \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000	Sunwater Forecast \$'000
Operations	704.1	581.3	122.9	727.6	586.2	141.4	805.9	600.9	963.4	615.9	984.8	991.3	1016.6	1044.5	1068.8
Labour	134.2	146.1	(11.8)	131.0	150.8	(19.8)	155.9	154.5	177.9	158.4	182.9	182.7	187.8	192.9	198.1
Contractors	30.0	5.6	24.4	7.5	5.7	1.7	5.3	5.9	10.8	6.0	11.0	10.9	11.2	11.5	11.7
Materials	0.1	3.4	(3.3)	0.4	3.4	(3.1)	0.3	3.5	2.9	3.6	3.0	3.0	3.1	3.1	3.2
Electricity	19.5	19.9	(0.5)	74.9	21.3	53.6	39.5	21.9	40.0	22.4	39.6	42.9	44.5	48.4	48.1
Insurance	192.1	85.9	106.2	211.3	87.3	123.9	192.5	89.5	224.6	91.8	229.2	234.5	239.9	245.4	251.0
Other	21.7	40.2	(18.5)	23.7	40.9	(17.1)	27.0	41.9	94.9	42.9	96.9	96.3	98.5	100.8	103.1
Local area support costs	114.7	-	114.7	112.6	-	112.6	117.5	-	67.7	-	69.3	69.1	70.8	72.6	74.4
Corporate support costs	49.5	142.8	(93.3)	48.8	146.0	(97.2)	83.9	149.6	133.3	153.4	136.5	136.1	139.6	143.1	146.6
Indirect costs	142.4	137.4	5.0	117.5	130.8	(13.3)	183.9	134.1	211.4	137.4	216.5	215.8	221.3	226.8	232.5
Preventative maintenance	114.2	115.0	(0.8)	102.9	115.4	(12.5)	93.6	118.3	106.2	121.2	108.9	108.6	111.4	114.3	117.2
Labour	34.4	37.5	(3.1)	34.0	38.7	(4.7)	21.9	39.7	33.0	40.7	33.9	33.9	34.8	35.8	36.8
Contractors	5.5	2.3	3.3	7.2	2.3	4.9	20.0	2.3	11.7	2.4	12.0	11.9	12.2	12.5	12.8
Materials	1.5	4.5	(3.0)	0.3	4.6	(4.3)	2.5	4.7	1.0	4.8	1.0	1.0	1.0	1.0	1.1
Other	3.4	1.9	1.5	2.0	1.9	0.1	1.8	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.1
Local area support costs	29.6	-	29.6	29.2	-	29.2	16.3	-	11.8	-	12.1	12.0	12.3	12.6	12.9
Corporate support costs	10.2	35.3	(25.1)	10.0	36.1	(26.1)	11.5	37.0	24.7	37.9	25.3	25.2	25.9	26.5	27.2
Indirect costs	29.6	33.5	(3.9)	20.2	31.8	(11.6)	19.6	32.6	23.0	33.4	23.6	23.5	24.1	24.7	25.3
Corrective maintenance	40.7	53.4	(12.7)	40.7	53.7	(12.9)	56.2	55.0	41.3	56.4	42.3	42.1	43.2	44.3	45.4
Labour	7.2	14.9	(7.7)	10.0	15.4	(5.3)	13.0	15.7	9.8	16.1	10.1	10.1	10.4	10.7	11.0
Contractors	11.4	3.4	8.0	3.0	3.4	(0.5)	11.8	3.5	6.9	3.6	7.0	7.0	7.1	7.3	7.5
Materials	6.5	5.6	0.9	8.8	5.7	3.1	1.3	5.9	6.9	6.0	7.0	7.0	7.1	7.3	7.5
Other	0.4	1.8	(1.4)	0.9	1.8	(1.0)	2.5	1.9	-	1.9	-	-	-	-	-
Local area support costs	6.2	-	6.2	8.6	-	8.6	9.9	-	3.5	-	3.6	3.6	3.7	3.8	3.9
Corporate support costs	2.9	14.4	(11.5)	3.4	14.7	(11.3)	7.3	15.1	7.4	15.4	7.5	7.5	7.7	7.9	8.1
Indirect costs	6.1	13.3	(7.2)	6.0	12.6	(6.6)	10.4	12.9	6.9	13.2	7.0	7.0	7.2	7.4	7.5
Routine total	859.0	749.6	109.4	871.2	755.3	116.0	955.7	774.2	1110.9	793.5	1136.0	1142.0	1171.2	1203.1	1231.4

1. All financial figures are nominal. Totals may not add due to rounding.
2. Sunwater's 2020/21 to 2023/24 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. For 2017/18 and 2018/19 Sunwater has included and reported against the 2016/17 QCA recommended costs adjusted for inflation which was assumed to be 2.5%.
4. A normalised level of direct expenditure and associated overheads were included in 2017/18 routine costs to rectify an under-representation of time-sheet reporting for direct cost activities (and partially because of the organisational changes occurring) during that year.

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**. Sunwater has used a 30-year planning period to calculate the annuity from 2020/21.

Details of the major non-routine projects planned for the 2019/20 to 2023/24 period are set out in **Appendix 1**. Sheet piling refurbishment at Silverleaf Weir is forecast to be a significant driver of non-routine expenditure in the first three years of this period.

Table 4: Annuity balance¹

Barker Barambah Service Contract	2017/18 Actual \$'000	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
Annuity							
Opening balance ²	(775.2)	(784.2)	(991.6)	(2583.2)	(3439.9)	(2634.6)	(1712.8)
Non-routine spend	(202.9)	(406.9)	(1492.8)	(2267.0)	(567.1)	(507.8)	(228.8)
Insurance proceeds receipts (if applicable)							
Prior year	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-
Annuity contribution ³	252.0	258.3	264.1	1561.3	1573.4	1583.6	1594.9
Interest/financing costs	(58.1)	(58.7)	(74.3)	(151.0)	(201.1)	(154.0)	(100.1)
Sunwater – Closing Balance	(784.2)	(991.6)	(2294.5)	(3439.9)	(2634.6)	(1712.8)	(446.8)
QCA – Closing Balance	(513.6)	(579.4)					
Difference	(270.6)	(412.1)					

1. All financial figures are nominal. Totals may not add due to rounding.
2. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. These amounts have been carried forward to 2020/21 so that they can be considered as part of the QCA's review of expenditure for the new irrigation price path.
3. The annuity contribution is included in the prices paid by customers. It was set by the QCA for 2012/13 to 2016/17 and is rolled forward with the Consumer Price Index for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based upon Sunwater's forecast.

Appendix 1: Non-routine projects for 2019/20 to 2023/24

The below table sets out Sunwater’s currently planned non-routine projects for the 2019/20 to 2023/24 period. While the 2019/20 program is well defined, estimates become more uncertain further into the planning timeline. Forecasts are therefore subject to change in future NSPs, reflecting changes in project delivery timing, asset condition and risk updates, and outcomes from scheduled asset inspections.

Year	Project title	Project scope	Budget (\$'000 nominal)
2019/20	Silverleaf Weir – Refurbishment	Sunwater anticipates the options study on the refurbishment of Silverleaf Weir will recommend the installation of sheet piling on the upstream side, concrete capping the weir and installing a new outlet works. Three other weirs have been successfully refurbished using this method so Sunwater is confident this is the optimum solution. Other options at a far higher cost include a new weir upstream and buying back water allocations. Work will be spread over two years, with a third-year contingency in case of unfavourable weather.	959
	Bjelke-Petersen Dam – Refurbish Guard Valve No. 2	Guard Valve No. 2 requires patch painting to remove corrosion to extend its life and replacement seals to minimise water loss. If possible, it will be done on site, but the budget covers removal to Bundaberg if needed.	76
	Bjelke-Petersen Dam – Comprehensive Risk Assessment (CRA) inputs	The CRA is being reviewed to fully assess the structural and societal risks. Key inputs to the Bjelke-Petersen Dam CRA are to review the geotechnical and seismic information and perform dam stability analyses.	207
	Redgate Pipeline – Replace valve	The outlet valve from the pipeline into the weir is showing signs of age and needs to be replaced to ensure the pipeline can be shut off when needed.	34
	Bjelke-Petersen Dam – Level 2 bridge assessment	Main Roads standards recommend that bridges undergo a Level 2 assessment every five years. Sunwater has relaxed this frequency to 20 years due to low usage; however, we deem it prudent to undertake this assessment as an input into the CRA and dam safety review.	30
	Other works	There are 9 other non-routine projects for 2019/20.	187
	2019/20 Total		1493

Year	Project title	Project scope	Budget (\$'000 nominal)
2020/21	Silverleaf Weir – Refurbishment	Sunwater anticipates the options study on the refurbishment of Silverleaf Weir will recommend the installation of sheet piling on the upstream side, concrete capping the weir and installing a new outlet works. Three other weirs have been successfully refurbished using this method so Sunwater is confident this is the optimum solution. Other options at a far higher cost include a new weir upstream and buying back water allocations. Work will be spread over two years, with a third-year contingency in case of unfavourable weather.	1944
	Bjelke-Petersen Dam – CRA	A CRA is conducted with the new information to assess the level of risks identified and further refine their priority for refurbishment.	189
	Bjelke-Petersen Dam – Bathymetric survey	An underwater survey is to be conducted to identify all hidden obstacles. This is a public safety initiative.	49
	Bjelke-Petersen Dam – Replace secondary winch	The secondary bulkhead winch has been hydraulically actuated in the past; however, the hydraulic system is in poor condition. It is prudent to replace with an electrically actuated system as there is an electrical supply to the site already. The current hydraulic system is a mobile system that would be used specifically for this site so it is not the optimal solution.	35
	Other works	There are 4 other non-routine projects for 2020/21.	50
	2020/21 Total		2267
2021/22	Silverleaf Weir – Refurbishment	Sunwater anticipates the options study on the refurbishment of Silverleaf Weir will recommend the installation of sheet piling on the upstream side, concrete capping the weir and installing a new outlet works. Three other weirs have been successfully refurbished using this method so Sunwater is confident this is the optimum solution. Other options at a far higher cost include a new weir upstream and buying back water allocations. Work will be spread over two years, with a third-year contingency in case of unfavourable weather.	501
	Meter replacements	This is an allowance to replace failed customer meters in the Barker Barambah scheme. If meters are not replaced, the funds will remain in the annuity.	17
	Joe Sippel and Silverleaf Weirs – Comprehensive inspections	Sunwater conducts comprehensive inspections on our dams and weirs every five years to maintain current asset condition knowledge and improve the non-routine maintenance programs. The Silverleaf Weir inspection will not occur if significant upgrade work occurs in the previous years.	31

Year	Project title	Project scope	Budget (\$'000 nominal)
	Other works	There are 3 other non-routine projects for 2021/22, being standard-based seven-year crane inspections and air valve replacements.	18
	2021/22 Total		567
2022/23	Meter replacements	This is an allowance to replace failed customer meters in the Barker Barambah scheme. If meters are not replaced, the funds will remain in the annuity.	18
	Bjelke-Petersen Dam – 20-year dam safety review	The 20-year safety review will compare Bjelke-Petersen Dam with current design and construction standards. Any identified deficiencies will be prioritised for action following a CRA.	369
	Bjelke-Petersen Dam – Anchor tests	Several passive anchors will be pulled during the 20-year safety review to determine their contact with the foundation rock. The force needed to pull them will be compared with design standards and refurbishment planned if needed.	95
	Silverleaf Weir – Headwater Gauge Building	Sunwater hydrographers report that the gauge building has been vandalised on a few occasions over the past years. This project will enhance the walls and doors to minimise damage to the equipment.	16
	Other works	There is 1 other non-routine project for 2022/23.	10
	2022/23 Total		508
2023/24	Bjelke-Petersen Dam – Comprehensive inspection	Sunwater conducts comprehensive inspections on our dams and weirs every five years to maintain current asset condition knowledge and improve the non-routine maintenance programs.	143
	Bjelke-Petersen Dam – Electrical upgrade options	Components of the outlet building electrical system not replaced under flood damage repair works are coming towards their end of life. It is prudent to better understand their condition and prepare options for their replacement before they fail. Options are needed as electrical technology has changed considerably since this equipment was installed.	8
	Stream gauging stations – Replace ageing equipment	Similarly, for electrical equipment, the stream gauging station equipment is also ageing and needs to be replaced with modern equivalents. An options study is not needed as the technology and likely solutions remain well defined.	16
	Bjelke-Petersen Dam – Replace dehumidifier	This is an allowance to replace the dehumidifier in the outlet building. It is needed to keep electrical switchboards etc. dry and will complement any electrical upgrades recommended from the options study.	22

Year	Project title	Project scope	Budget (\$'000 nominal)
	Other works	There are 4 other non-routine projects for 2023/24.	40
	2023/24 Total		229

Contact us

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We consider and respond to all submissions, publishing all responses on our website.

This NSP 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 NSP relates, and the operations and activities actually undertaken by Sunwater during the relevant periods, may vary materially from the information contained in this NSP. This NSP should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this NSP 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 NSP or the information contained within it.