2018/19 to 2023/24 Network Service Plan

Barker Barambah Bulk Water Service Contract

31 July 2018

Final

Contents

Disclaimer

This Network Service Plan (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.

Our plan for Barker Barambah

We're focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Barker Barambah Bulk Water Service Contract continues to meet the needs and expectations of our diverse customer base.

In this Network Service Plan (NSP) we outline a range of proposed immediate refurbishment and longer-term improvement projects, and provide a detailed breakdown of anticipated costs for review.

Our focus during the 2018/19 to 2023/24 NSP period will be on ensuring routine operations activities are implemented safely, timely and efficiently. We will be continuing to replace customer meters on an as needs basis to ensure our customers have accurate water metering in place. Refurbishment works are also planned on the cone dispersion outlet valves at Bjelke-Petersen Dam.

We are continuing to implement an efficient and effective preventative maintenance program, with a focus on ensuring the Service Contract's assets continue to perform reliably.

It is important to us that our customers are consulted in making important decisions. We welcome and encourage your feedback on this NSP, and look forward to working with you to deliver the programs of work.

Darren Large

Area Operations Manager Burnett & Lower Mary

1. Introduction

A Network Service Plan details a range of proposed immediate and longer-term improvement projects, and provides a detailed breakdown of anticipated costs for review.

NSPs are an important part of our asset management framework, feeding into our strategic asset management and corporate strategic plans, as illustrated in ***Appendix 1***.

The purpose of this year's NSP is twofold:

1. to consult with customers on routine and non-routine expenditure throughout the coming financial year
2. to present to customers SunWater's projected efficient costs for the six year period from 2018/19 to 2023/24.

In particular, the NSP covers:

- past performance for routine and non-routine expenditure
- forecast routine and non-routine expenditure for 2018/19 to 2023/24
- the long-term outlook for material non-routine expenditure.

In this NSP, the focus of consultation was the draft budget figures for 2018/19 and thereafter. We have retained prior year actual results in ***Appendix 2*** for reference, as requested by customers.

Input from customers is a valuable part of SunWater's planning processes and ensures that we invest in areas which support the services we provide to customers. Figure 1 below shows how SunWater and customers work together in relation to NSPs. SunWater has consulted with the Irrigator Advisory Committee (IAC) on the draft NSP and feedback from the Committee has been considered and incorporated where appropriate.

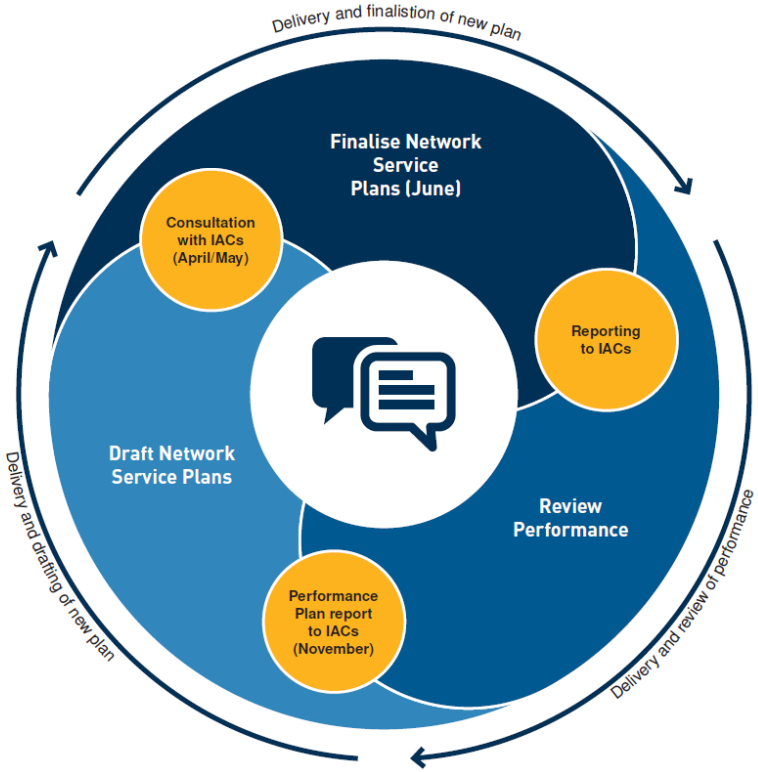
To have your say and shape future NSPs, please contact us via email or post:

Email: nspfeedback@sunwater.com.au

Post: NSP Feedback
PO Box 15536 City East
Brisbane Qld 4002

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

Figure 1: Customer consultation and Network Service Plans



2. Delivering services to customers

At SunWater we are committed to working collaboratively with our customers to deliver value and fit-for-purpose water solutions. SunWater's Customer Service Commitment can be viewed at: www.sunwater.com.au

2.1 Our customers

The majority of our 170 customers in this Service Contract are farmers in the areas of Redgate, Murgon and Mondure. Water is also provided to supplement the town water supply for the townships of Murgon, Wondai, Byee and Cherbourg.

The water entitlements for each customer segment are shown in Table 1.

Table 1: Water entitlement and usage data

Customer Segment	Total Water Entitlements (ML)	High Priority Water Entitlements (ML)	Medium Priority Water Entitlements (ML)	Water Deliveries 2016/17 (ML)
Irrigation	31,361	0	31,361	17,529
Urban	1638	1638	0	481
SunWater	1316	598	718	0
Total	**34,315**	**2236**	**32,079**	**18,010**

The 2018/19 charges and cost per megalitre are shown in Table 2. 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 2: Irrigation charges for 2018/19

Product		2018/19 ($/ML)	Cost ($/ML)[1,2,3]	Subsidy ($/ML)
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	25.30	31.79	6.49
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	4.49	12.48	7.99

1. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
2. The notional High Priority Allocation Charge cost per megalitre is $408.73.
3. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 72 per cent (previously 76 per cent).

2.2 Service targets

SunWater and customers have agreed Water Supply Arrangements and Service Targets for the Barker Barambah Bulk Water Service Contract.

Table 3 below sets out our performance in 2016/17 against the service targets for: issuing notification of planned shutdowns; the duration of unplanned shutdowns; and the frequency of interruptions to supply.

In addition, SunWater will be setting targets for the time it takes to resolve complaints and will be able to report our performance against these targets in future NSPs.

Table 3: Service targets and performance

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

2.3 Key infrastructure

Table 4 lists the key infrastructure used to deliver bulk water services to our customers in Barker Barambah.

Table 4: Key infrastructure

Asset	Description	Total storage capacity (ML)
Bjelke-Petersen Dam	Earth and rock fill dam, consisting of a saddle wall and a main wall. The spillway is located on the left abutment. Classified as a referable dam under the *Water Supply (Safety and Reliability) Act 2008*.	134,900
Joe Sippel Weir	Cascading concrete wall	710
Silverleaf Weir	Timber piled, earth and rock structure	580
Redgate Diversion Pipeline	Gravity, with a pumping unit installed when the dam level is too low. Transfers water from Bjelke-Petersen Dam to Joe Sippel Weir.	N/A
Upper Redgate Relift Pipeline	Includes a pump	N/A

3. Financial summary – revenue and expenditure

All financial figures in this report are presented in nominal dollars.

A high-level summary of the budgeted financial performance of the Barker Barambah Bulk Water Service Contract is presented in Table 5.

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 Queensland Competition Authority (QCA) as part of its review of irrigation charges and is intended to allow SunWater to recover its prudent and efficient costs of operating the Service Contract.

SunWater anticipates no material change in revenue for the Barker Barambah Bulk Water Service Contract in 2018/19.

In 2018/19, SunWater plans to increase routine expenditure and decrease non-routine expenditure for the Barker Barambah Bulk Water Service Contract, with a focus on projects that improve efficiency and performance, and allow us to deliver the best possible service to our customers. This will continue to be our focus throughout the upcoming price path period.

Further detail on the planned spend and annuity revenue is outlined on subsequent pages of this NSP and a further breakdown of expenditure by type can be found in ***Appendix 2***.

Table 5: Service contract financial summary[1]

Barker Barambah Service Contract	2014/15 Actual $'000	2015/16 Actual $'000	2016/17 Actual $'000	2017/18 Estimate $'000	2018/19 Forecast $'000
Revenue					
Irrigation	798.7	803.7	836.5	864.6	886.2
Community Service Obligation	-	-	-	-	-
Industrial[2]	26.7	27.1	-	-	-
Urban[2]	188.0	211.1	237.1	256.5	262.9
Drainage	-	-	-	-	-
Other	203.4	2.3	6.8	3.0	3.0
Insurance proceeds – flood	-	-	-	-	-
Revenue Total	**1216.9**	**1044.1**	**1080.4**	**1124.1**	**1152.1**
Less – Routine expenditure	(868.8)	(859.0)	(871.2)	(943.7)	(1137.3)
Less – Non-routine expenditure					
Annuity funded	(176.3)	(45.3)	(190.7)	(722.0)	(394.0)
Non annuity funded[3]	(8.0)	-	(4.7)	-	-
Surplus (deficit)	**163.8**	**139.8**	**13.8**	**(541.6)**	**(379.3)**

1. Totals may not add due to rounding.
2. Forecast revenues for industrial and urban customers are based on current contractual arrangements.
3. This is expenditure which has not been funded by irrigation customers.

As part of our commitment to transparency, Figure 2 and Figure 3 show a high-level breakdown of total Service Contract costs. The item 'Annuity Contribution' refers to the annualised renewals annuity component of the Service Contract's total costs.

Figure 2: Breakdown of total service contract costs – 2018/19 forecast

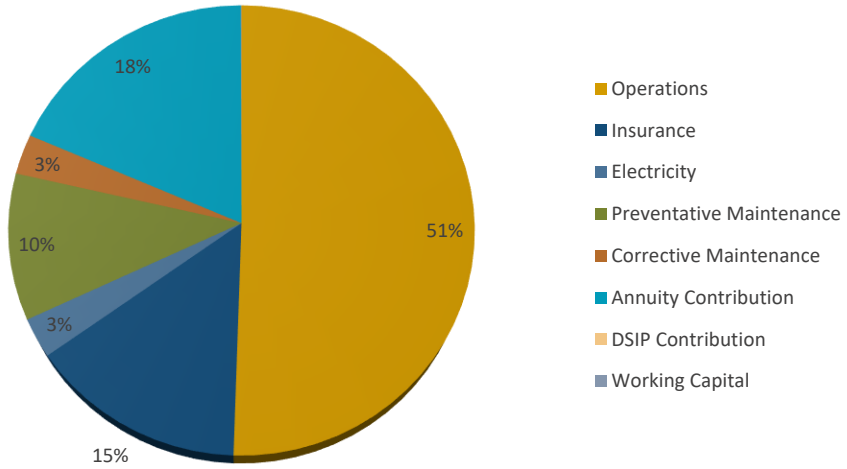
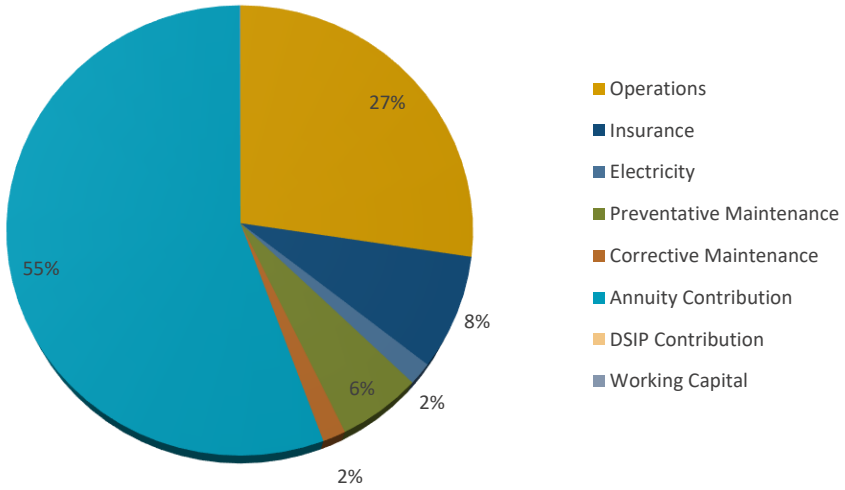


Figure 3: Breakdown of total service contract costs – 2019/20 to 2023/24 forecasts



4. Cost of delivering services – routine expenditure

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

SunWater has budgeted an increase in Barker Barambah Bulk Water Service Contract's routine operating expenditure in 2018/19 (refer to Table 6). SunWater's proposed budgets for routine operating expenditure for 2019/20 to 2023/24 are also presented in this table.

From 2019/20, SunWater has built into forecast costs an efficiency saving of 0.2 per cent every year (cumulative).

Following consultation with customers on the draft NSPs and a further review of potential savings in non-direct costs, SunWater has included an additional one-off reduction in routine non-direct expenditure from 2019/20 onwards comprising: an 8.00 per cent reduction in corporate support costs, a 1.00 per cent reduction in local area support costs and a 1.10 per cent reduction in indirect costs.

The data presented in Table 6 includes direct expenses and a share of local area support costs, indirect costs and corporate support costs. For a more detailed breakdown and explanation of these costs, refer to ***Appendix 2***.

Table 6: Routine operating expenditure[1,2]

Barker Barambah Service Contract	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 Estimate $'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
Electricity	74.9	21.3	53.6	23.7	21.9	40.0	22.4	42.2	42.0	43.4	44.5	43.7
Insurance	211.3	87.3	123.9	211.3	89.5	204.9	91.8	209.6	214.4	219.3	224.4	229.5
Operations	441.4	477.5	(36.1)	562.2	489.5	705.5	501.7	696.3	714.6	733.5	752.9	772.7
Operations Total	**727.6**	**586.2**	**141.4**	**797.2**	**600.9**	**950.4**	**615.9**	**948.1**	**971.0**	**996.2**	**1021.8**	**1046.0**
Preventative maintenance	102.9	115.4	(12.5)	115.6	118.3	146.8	121.2	144.5	148.4	152.3	156.4	160.6
Corrective maintenance	40.7	53.7	(12.9)	30.9	55.0	40.2	56.4	39.7	40.7	41.8	42.9	44.0
Routine Total	**871.2**	**755.3**	**116.0**	**943.7**	**774.2**	**1137.3**	**793.5**	**1132.3**	**1160.1**	**1190.3**	**1221.0**	**1250.5**

1. Totals may not add due to rounding.
2. SunWater's 2019/20 to 2023/24 budget figures are draft as at the time of consultation. 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%.

4.1 Operations

Barker Barambah Bulk Water Service Contract's total operations budget in 2018/19 is 54.32 per cent above the QCA's recommended costs (adjusted for inflation). This is largely driven by insurance costs and the ongoing implementation costs of the Inspector-General Emergency Management (IGEM) Review recommendations. For further detail on what is included in operations expenditure, refer to ***Appendix 3***.

Electricity

One of the key challenges for SunWater is managing the cost of electricity. SunWater is therefore targeting several initiatives over the next 24 months to help manage these costs, including:

- annual tariff reviews to match electricity usage with the best electricity tariff
- testing the contestable market for potential savings
- ensuring our assets are operating as efficiently as possible
- operational management of usage to reduce the impact of demand charges.

Insurance

Insurance is one of SunWater's largest expenditure items and 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.

Although insurance premiums are forecast to increase globally in 2018/19, SunWater is forecasting a small reduction in our insurance costs in 2018/19 compared to the 2017/18 budget as a result of the review of our insurance coverage and recent market testing.

Insurance is primarily allocated based on declared asset values.

4.2 Preventative maintenance

Preventative maintenance underpins the ongoing operational performance and service capacity of Barker Barambah Bulk Water Service Contract's physical assets.

Preventative maintenance is cyclical in nature with a typical interval of 12 months or less, however, the intervals can be longer. Barker Barambah Bulk Water Service Contract's preventative maintenance for 2018/19 is budgeted to be 21.04 per cent above the QCA's recommended costs (adjusted for inflation).

For more information on what is included as preventative maintenance, refer to ***Appendix 3***.

4.3 Corrective maintenance

Corrective maintenance is identified in several ways including:

- through the performance of preventative maintenance
- operation of assets and equipment
- operational inspections where defects are identified
- through continuous monitoring by control systems, hazard inspections, safety audits and from incident and accident investigation outcomes.

Corrective maintenance includes activities to correct unexpected failures or to return an asset to an acceptable level of performance or condition. While these are difficult to forecast with accuracy, history has shown that such events can be expected and need to be factored into expenditure forecasts. SunWater conducts two types of corrective maintenance: scheduled and emergency.

Corrective maintenance expenditure forecasts include provision for labour, materials and plant hire, but do not include costs of damage arising from major unexpected events, such as floods. These costs are categorised as non-routine corrective maintenance, which is discussed in the following section.

Barker Barambah Bulk Water Service Contract's corrective maintenance for 2018/19 is budgeted to be 28.74 per cent below the QCA's recommended costs (adjusted for inflation). This is broadly in line with historical expenditure.

Scheduled corrective maintenance

Scheduled corrective maintenance is maintenance that can be planned and scheduled. For a list of what this typically includes, refer to ***Appendix 3***. This work is managed on a risk and priority basis with as much forward planning as possible to cater for pricing cycles.

Emergency corrective maintenance

Emergency corrective maintenance (or breakdown maintenance) includes works required to restore system supply and capacity or equipment operation after an unplanned event. It is carried out immediately to restore normal operation or supply to customers or to meet regulatory obligations (eg rectify a safety hazard). For a list of what this typically includes, refer to ***Appendix 3***.

5. Cost of delivering services – non-routine expenditure

SunWater's approach to managing non-routine expenditure is underpinned by the concept of 'optimised life cycle cost', which seeks to optimise capital outlays and ongoing maintenance spend.

Our whole-of-life asset replacement and maintenance strategy looks at the risk and condition of each asset and uses this information to estimate the future work required to ensure it will continue to provide the required level of service into the future.

Having up-to-date knowledge of asset conditions is essential to this process. Information from our continuous program of asset inspections and condition assessments feeds into the annual review of the renewals program.

Non-routine expenditure is funded via an annuity. This expenditure could be capital or operating expenditure. The annuity approach acknowledges a long-term view of renewals spend and seeks to reduce the burden on future generations of water users.

The QCA applied a 20 year planning period for the purpose of calculating the 2012/13 to 2016/17 renewals annuity. For 2018/19 to 2023/24, SunWater is proposing to adopt a 30 year planning period. Our forecast annuity funded non-routine expenditure presented in Table 7 and elsewhere in this NSP reflects this proposal.

While the immediate program for the 2018/19 budget is well defined, estimates become more uncertain further into the planning timeline. As such, the program of works is not a specific forecast of when individual projects are expected to be executed, but rather a portfolio-level estimate based on the best-available risk and condition information for the Service Contract as a whole.

At SunWater, we focus on ensuring our assets are maintained to the required standard at the lowest cost. Our review of the renewals profiles also extends to considering the key asset replacement assumptions so that the profile better reflects likely spend each year and moves away from assuming assets are replaced at end of standard life, based on their replacement costs.

Table 7 sets out our non-routine annuity and non-annuity funded expenditure.

Details of the major non-routine projects planned for the period from 2018/19 to 2023/24 are set out in ***Appendix 4***.

Table 7: Non-routine expenditure[1]

Barker Barambah Service Contract	2016/17			2017/18[2]		2018/19[2]		2019/20	2020/21	2021/22	2022/23	2023/24
	SunWater Actual $'000	QCA Recommended $'000	Variance $'000	SunWater Estimate $'000	QCA Forecast $'000	SunWater Forecast $'000	QCA Forecast $'000	SunWater Forecast $'000	SunWater Forecast $'000	SunWater Forecast $'000	SunWater Forecast $'000	SunWater Forecast $'000
Annuity funded												
Operations	18.9	-	18.9	79.2	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	171.8	104.9	66.9	642.8	-	394.0	285.7	1564.2	2022.3	79.7	519.6	453.1
Non-routine total	**190.7**	**104.9**	**85.8**	**722.0**	**-**	**394.0**	**285.7**	**1564.2**	**2022.3**	**79.7**	**519.6**	**453.1**
Non annuity funded												
Other	**4.7**			**-**		**-**		**-**	**-**	**-**	**-**	**-**

1. Totals may not add due to rounding.
2. The QCA Forecast for 2017/18 and 2018/19 are based upon the modelling undertaken by the QCA as part of the 2012 irrigation pricing review.

6. 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/rehabilitation of the assets over a pre-determined period of time. The forecast annuity balances, and the impacts of budgeted non-routine spend, are shown in Table 8 below.

The QCA and SunWater closing balances will differ due to differences in the expenditure profile allowed by the QCA in 2012 and actual expenditure incurred by SunWater between 2012/13 and 2018/19. For example, renewals expenditure is greater than QCA recommended forecasts as a result of flood events in 2010/11 and 2012/13 (approximately $1 million). SunWater has not received insurance proceeds for these events, which may impact the annuity balances going forward.

Table 8: Annuity balance[1]

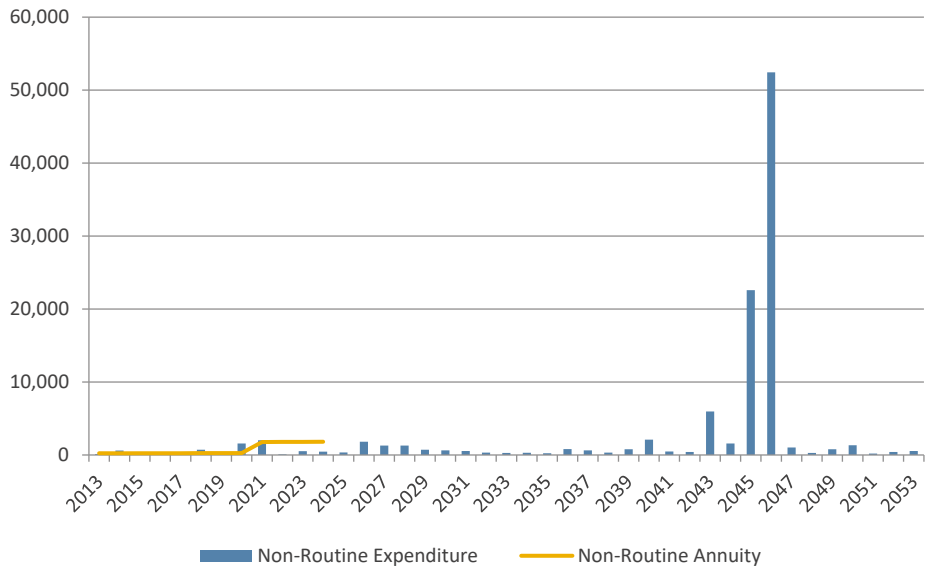
Barker Barambah Service Contract	2016/17 Actual $'000	2017/18 Estimate $'000	2018/19 Forecast $'000	2019/20 Forecast $'000	2020/21 Forecast $'000	2021/22 Forecast $'000	2022/23 Forecast $'000	2023/24 Forecast $'000
Annuity								
Opening balance[2]	(1094.9)	(1121.7)	(1675.7)	(1937.0)	(3143.8)	(3569.6)	(2068.1)	(908.1)
Spend	(190.7)	(722.0)	(394.0)	(1564.2)	(2022.3)	(79.7)	(519.6)	(453.1)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[3]	245.8	252.0	258.3	264.8	1778.5	1787.8	1799.3	1812.1
Interest/financing costs	(82.0)	(84.0)	(125.5)	(145.1)	(181.9)	(206.6)	(119.7)	(52.6)
SunWater – Closing Balance	**(1121.7)**	**(1675.7)**	**(1937.0)**	**(3381.5)**	**(3569.6)**	**(2068.1)**	**(908.1)**	**398.3**
QCA – Closing Balance	**(712.2)**	**(513.6)**	**(579.4)**					
Difference	(409.5)	(1162.1)	(1357.6)					

1. 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. For example, flood repairs associated with an insurance claim that were still outstanding in 2012. 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 CPI for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based upon SunWater's forecast and will be included as part of SunWater's submission to the QCA for the upcoming price review.

6.1 Overview of annuity-funded, non-routine projects to 2052/53

The estimated renewals expenditure out to 2052/53 is shown in Figure 4 below.

Figure 4: Annuity expenditure to 2052/53 ($'000)



The renewals annuity presented above is calculated over a 30 year planning period, with projects forecast to occur up to 2052/53 affecting the renewals annuity. The greater the value of the project, the more significant impact upon the renewals annuity.

6.2 Options assessment

SunWater is committed to maintaining assets that are fit for service with the lowest possible lifecycle cost.

In response to a recommendation from the QCA in 2012, SunWater has been preparing options analyses for all material renewals projects within the planning period. SunWater now has the benefit of learnings, having applied this approach for number of years, and has reflected and considered whether it is the most efficient approach or whether there is another way to approach this which provides customers with reassurance that SunWater's renewals expenditure is prudent and justified.

Following consultation with IACs, SunWater has decided to implement a new procedure for options assessments.

SunWater will continue to prepare an options analysis and supporting investigation where:

- there is no obvious solution
- the current maintenance strategy is changing
- technology has changed significantly, or
- there is a high risk in the project execution.

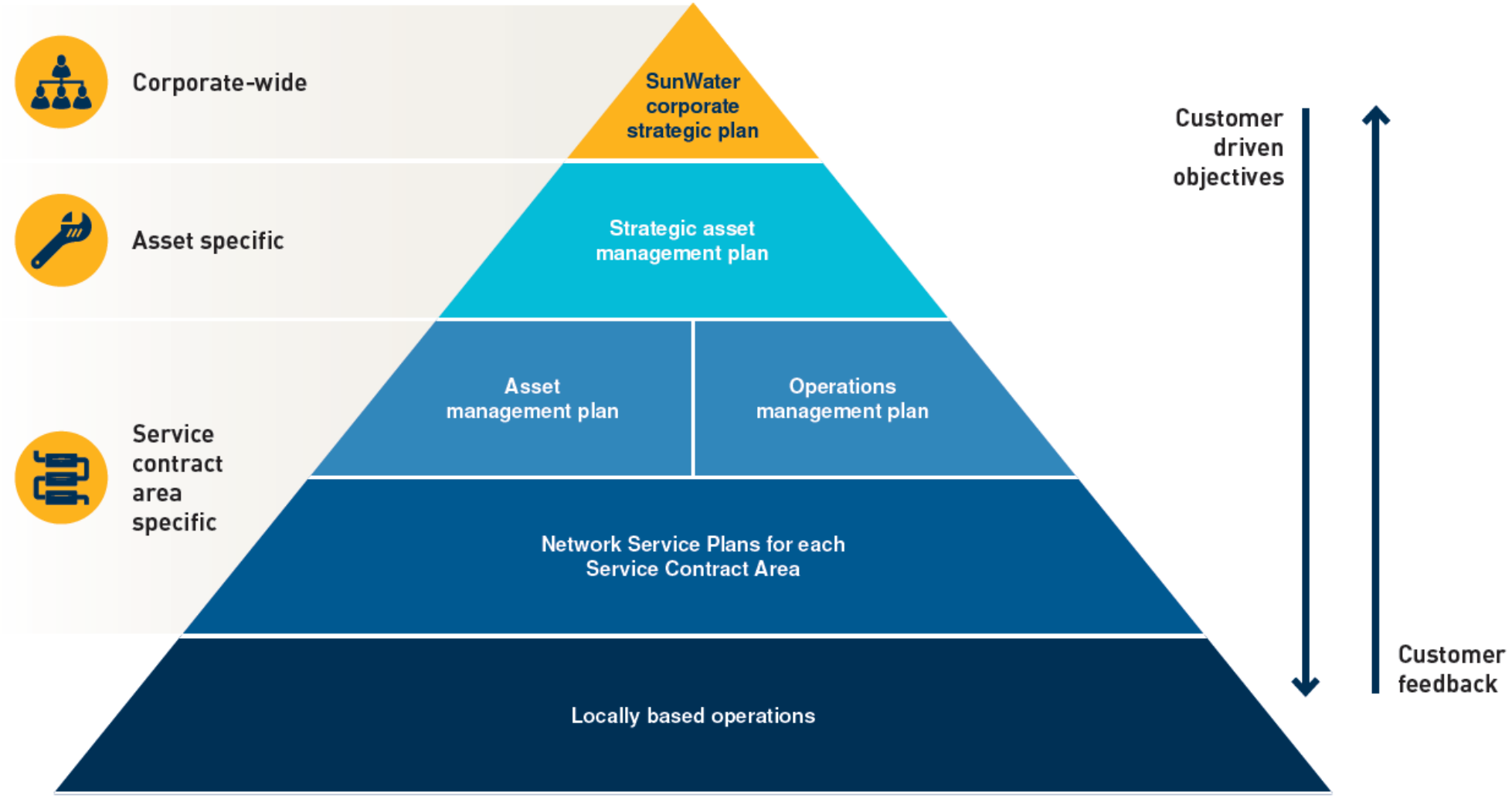
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

This approach takes the emphasis off the value of the renewals project and focuses on solutions and risk. It ensures that SunWater invests resources appropriately in those projects that would benefit from an options analysis.

SunWater will transition to this new approach, given options analyses have already been prepared for the 2018/19 material renewals projects. In the future, the Network Service Plans will identify renewals projects that we expect to prepare an options analysis for under the new approach. Customers will be able to provide feedback through the consultation process.

Appendix 1: SunWater's asset management framework

Figure 5: SunWater's asset management framework



Appendix 2: Total expenditure by expense type

Table 9: Expenditure for activity by type[1]

Barker Barambah Service Contract	2014/15			2015/16			2016/17			2017/18		2018/19		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 Actual $'000	QCA Recommended $'000	Variance $'000	SunWater Estimate $'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
Routine spend																		
Operations																		
Labour	145.3	141.5	3.7	134.2	146.1	(11.8)	131.0	150.8	(19.8)	152.9	154.5	130.0	158.4	130.7	134.6	138.5	142.5	146.7
Contractors	33.2	44.8	(11.6)	30.0	5.6	24.4	7.5	5.7	1.7	10.1	5.9	8.0	6.0	8.0	8.2	8.4	8.6	8.8
Materials	0.5	3.3	(2.8)	0.1	3.4	(3.3)	0.4	3.4	(3.1)	5.1	3.5	4.0	3.6	4.0	4.1	4.2	4.3	4.4
Electricity	26.6	18.5	8.1	19.5	19.9	(0.5)	74.9	21.3	53.6	23.7	21.9	40.0	22.4	42.2	42.0	43.4	44.5	43.7
Insurance	212.0	84.4	127.5	192.1	85.9	106.2	211.3	87.3	123.9	211.3	89.5	204.9	91.8	209.6	214.4	219.3	224.4	229.5
Other	58.6	39.4	19.2	21.7	40.2	(18.5)	23.7	40.9	(17.1)	53.2	41.9	49.0	42.9	49.0	50.1	51.3	52.4	53.6
Local area support costs	106.8	-	106.8	114.7	-	114.7	112.6	-	112.6	119.3	-	166.4	-	165.2	169.5	173.9	178.4	183.1
Corporate support costs	65.6	147.3	(81.8)	49.5	142.8	(93.3)	48.8	146.0	(97.2)	78.6	149.6	84.5	153.4	78.0	80.0	82.1	84.2	86.4
Indirect costs	110.5	143.9	(33.3)	142.4	137.4	5.0	117.5	130.8	(13.3)	143.1	134.1	263.6	137.4	261.4	268.2	275.2	282.4	289.7
Preventative maintenance																		
Labour	30.1	36.4	(6.2)	34.4	37.5	(3.1)	34.0	38.7	(4.7)	40.8	39.7	37.7	40.7	37.9	39.0	40.2	41.3	42.5
Contractors	1.8	2.2	(0.4)	5.5	2.3	3.3	7.2	2.3	4.9	10.3	2.3	12.0	2.4	12.0	12.3	12.6	12.9	13.2
Materials	1.3	4.4	(3.1)	1.5	4.5	(3.0)	0.3	4.6	(4.3)	-	4.7	1.0	4.8	1.0	1.0	1.0	1.1	1.1
Other	1.4	1.8	(0.5)	3.4	1.9	1.5	2.0	1.9	0.1	2.0	2.0	1.0	2.0	1.0	1.0	1.0	1.1	1.1
Local area support costs	23.0	-	23.0	29.6	-	29.6	29.2	-	29.2	31.9	-	48.3	-	47.9	49.1	50.4	51.7	53.1
Corporate support costs	10.3	35.9	(25.6)	10.2	35.3	(25.1)	10.0	36.1	(26.1)	17.9	37.0	24.5	37.9	22.6	23.2	23.8	24.4	25.1
Indirect costs	22.4	35.2	(12.9)	29.6	33.5	(3.9)	20.2	31.8	(11.6)	12.7	32.6	22.3	33.4	22.1	22.7	23.3	23.9	24.5
Corrective maintenance																		
Labour	4.2	14.4	(10.3)	7.2	14.9	(7.7)	10.0	15.4	(5.3)	8.1	15.7	8.3	16.1	8.3	8.6	8.8	9.1	9.3
Contractors	1.4	3.3	(1.9)	11.4	3.4	8.0	3.0	3.4	(0.5)	5.0	3.5	6.0	3.6	6.0	6.1	6.3	6.4	6.6
Materials	5.4	5.5	(0.1)	6.5	5.6	0.9	8.8	5.7	3.1	5.1	5.9	5.0	6.0	5.0	5.1	5.2	5.4	5.5
Other	0.5	1.7	(1.2)	0.4	1.8	(1.4)	0.9	1.8	(1.0)	-	1.9	-	1.9	-	-	-	-	-
Local area support costs	3.4	-	3.4	6.2	-	6.2	8.6	-	8.6	6.3	-	10.6	-	10.5	10.8	11.1	11.4	11.7
Corporate support costs	1.7	14.6	(12.9)	2.9	14.4	(11.5)	3.4	14.7	(11.3)	3.9	15.1	5.4	15.4	5.0	5.1	5.2	5.4	5.5
Indirect costs	3.0	14.0	(10.9)	6.1	13.3	(7.2)	6.0	12.6	(6.6)	2.5	12.9	4.9	13.2	4.9	5.0	5.1	5.2	5.4
Routine total	868.8	792.6	76.3	859.0	749.6	109.4	871.2	755.3	116.0	943.7	774.2	1137.3	793.5	1132.3	1160.1	1190.3	1221.0	1250.5
Non-routine spend																		
Labour	64.2	0.9	63.3	6.7	4.5	2.2	17.3	17.9	(0.6)	145.6	-	79.0	42.8	257.2	347.8	18.7	40.2	90.9
Contractors	(16.6)	1.0	(17.6)	11.6	4.9	6.7	130.9	19.1	111.8	333.9	-	52.1	69.9	457.1	422.9	19.9	376.4	122.5
Materials	0.1	1.0	(0.9)	0.6	4.9	(4.3)	0.7	19.1	(18.4)	5.0	-	43.2	45.7	229.4	366.6	-	15.7	23.9
Other	12.3	0.6	11.7	10.5	2.7	7.8	5.0	10.4	(5.5)	-	-	50.3	23.4	125.2	200.0	2.7	8.6	41.1
Local area support costs	43.8	1.2	42.6	5.8	5.6	0.2	14.9	21.7	(6.8)	113.6	-	71.5	56.6	141.3	191.8	12.5	24.0	49.1
Corporate support costs	23.0	-	23.0	3.0	-	3.0	11.7	-	11.7	78.5	-	51.3	-	213.5	288.6	15.5	33.4	75.4
Indirect costs	49.4	1.1	48.4	7.1	4.6	2.5	10.3	16.7	(6.4)	45.5	-	46.7	47.1	140.4	204.6	10.4	21.4	50.3
Non-routine total	176.3	5.8	170.4	45.3	27.2	18.1	190.7	104.9	85.8	722.0	-	394.0	285.7	1564.2	2022.3	79.7	519.6	453.1
Total spend	**1045.1**	**798.4**	**246.7**	**904.3**	**776.8**	**127.5**	**1062.0**	**860.2**	**201.8**	**1665.7**	**774.2**	**1531.4**	**1079.2**	**2696.4**	**3182.5**	**1270.1**	**1740.7**	**1703.7**

1. Totals may not add due to rounding.

Direct costs

Direct costs are those costs which are able to be directly attributable to either an asset or a service contract eg maintenance or insurance of an asset or the electricity and other operations costs for a service contract.

Local area support costs

Local area support costs are spread across service contracts managed in each locality. They are costs which support local people doing their jobs eg regional accommodation costs, local administration support and training.

In 2018/19 the Barker Barambah Bulk Water Service Contract is allocated 1.070 per cent of the forecast total local area support costs. Forecast local overheads in 2018/19 are higher than previous years and now more closely reflect actual local overheads in each region rather than local overheads averaged across SunWater.

Indirect costs

Indirect cost pools capture costs such as billing and customer support, irrigation pricing regulation and asset management (including dam safety, asset systems, channels and drainage) that have not been directly charged. They also include flood room operations, the IGEM emergency management program, water planning, hydrographic services, and environmental support costs. Indirect costs are based on a user pays approach eg service contracts without a dam or weir are not apportioned dam safety costs.

In 2018/19 the Barker Barambah Bulk Water Service Contract is allocated 1.650 per cent of the forecast total indirect costs. Increases in indirect costs allocated to Operations are largely driven by new IGEM costs, which are $159,000 in 2018/19 for this Service Contract.

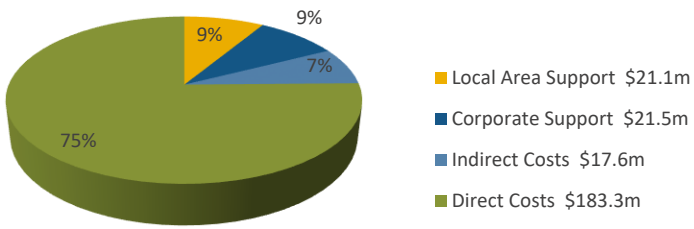
Corporate support costs

Corporate support costs are more generic than indirect costs and local area support costs, and are spread across all service contacts based on direct labour. They include the cost of human resources and payroll, information and communications technology, corporate communications, legal, property, finance, and internal audit, plus the costs of the Chief Executive Officer, Chief Financial Officer and the SunWater Board, where these costs are not directly charged to activities within service contracts.

In 2017/18 SunWater completed a corporate restructure which resulted in a net reduction of 20 positions from the business and a reduction in total corporate overhead costs. Despite this, corporate overheads allocated to each service contract have increased since 2017/18. Contributing factors to the increase are: the transfer of St George and potential transfer of Dawson distribution schemes to locally managed entities and less charging of labour to direct costs.

In 2018/19 the Barker Barambah Bulk Water Service Contract is allocated 0.532 per cent of the forecast total corporate support costs.

Figure 6: Total SunWater cost pools – 2018/19 forecast



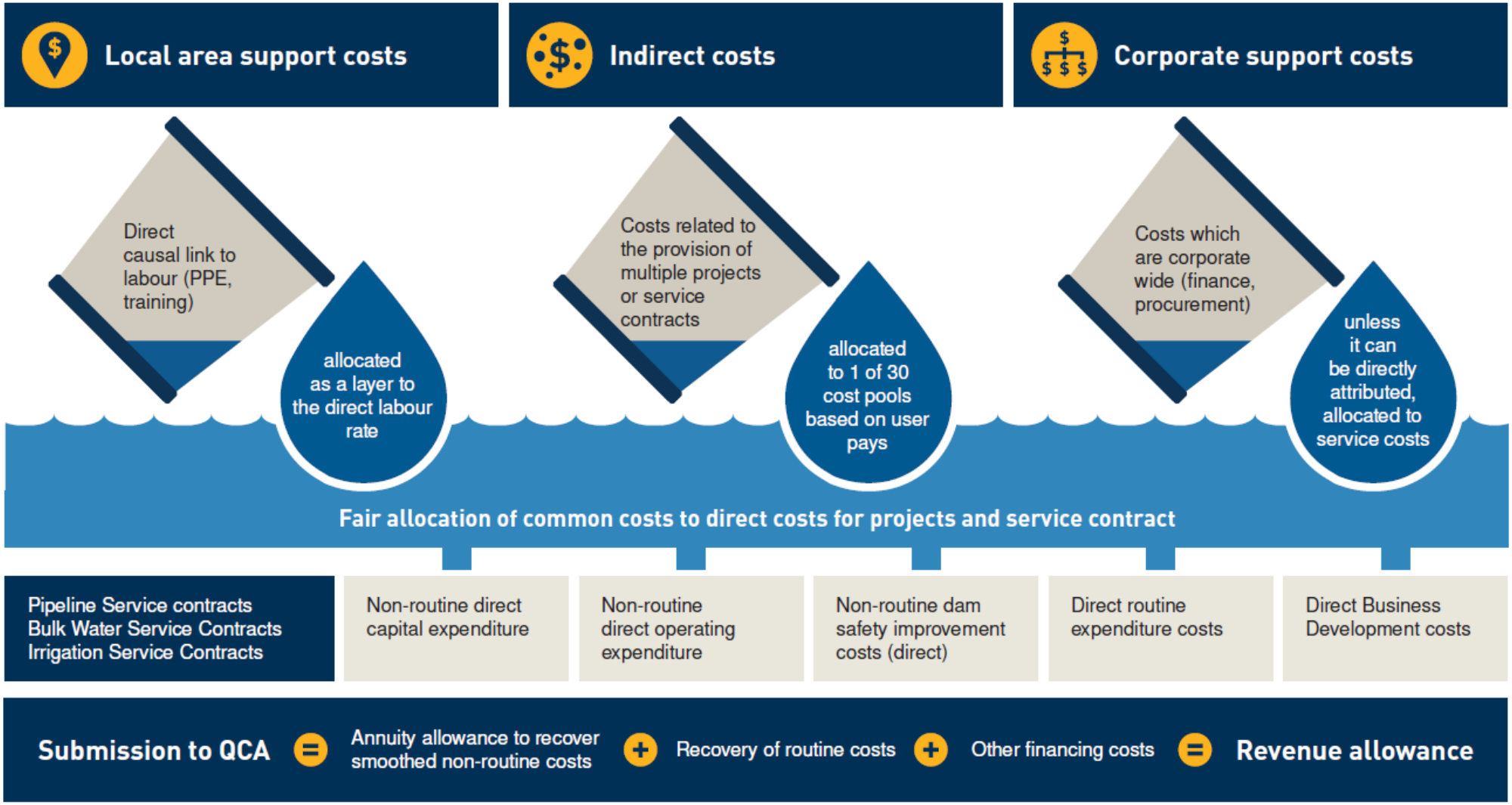
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater's methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and the allocation of corporate support costs to direct expenses. We also:

- removed the cascading of corporate overheads into indirect costs
- made the local overhead rate specific to each region
- simplified the cost drivers to labour only, removing the 5 per cent on direct cash costs excluding labour and electricity.

Forecast figures contained in this NSP reflect this change in approach.

Figure 7 below illustrates the allocation of costs associated with providing services.

Figure 7: How are SunWater's costs allocated to each service contract?



Appendix 3: Routine expenditure

Operations

Operations expenditure includes day-to-day costs associated with management of the Service Contract, water delivery and meeting compliance obligations. Specific activities include the direct and non-direct costs of:

- scheduling and delivering water, including processing water orders, releasing water, operating pump stations and monitoring customer deliveries
- Emergency Action Plans and seasonal event responses
- meter reading
- administration of water accounts, billing and receipting payments
- customer management, including enquiries, complaints and maintaining the customer service help desk
- Service Contract management, including licences and permits, rates, land management, planning and reporting
- insurance
- monitoring the security of infrastructure and unauthorised access
- managing engagement associated with the Service Contract
- managing enquiries from adjoining landholders and developers that require input from and negotiations with SunWater's property and legal sections
- tri-weekly dam inspections and other surveillance activities.

Preventative maintenance

Preventative maintenance for the Barker Barambah Bulk Water Service Contract includes:

- Condition monitoring — the inspection, testing or measurement of physical assets to report and record condition and performance to determine maintenance requirements. Condition monitoring is carried out on electrical, mechanical and civil assets, including pump stations (pumps, electrical motors, valves, switchboards and associated equipment), pipelines (valves, air valves, scours easements etc.) and other infrastructure.
- Servicing — planned maintenance activities carried out routinely on physical assets including valves, cranes, gauging stations, sump pumps and associated equipment.
- Weed control — management of weeds, including spraying and other activities to control nuisance and noxious weeds.

Scheduled corrective maintenance

Scheduled corrective maintenance varies by asset type and typically includes:

- Pipelines:
  - repairing pipe breaks, air and scour valves and concrete structures
  - erosion control and repairing rock protection works.
- Service Contract roads:
  - repairing pot holes and grading roads
  - repairing, replacing, and painting guide posts and signs.
- Pump stations:
  - repairing pumps, motors, concrete structures and control buildings
  - de-silting intake structures.
- Storages (headworks and weirs):
  - repairing control gates, valves and concrete structures
  - repairing walls, embankments and spillways.
- Meters:
  - repairing bulk water meters and customer meters.

Emergency corrective maintenance

Emergency corrective maintenance typically includes the repair or correction of faults in pump stations or pipelines. It also includes responding to theft or vandalism associated with Service Contract assets.

Appendix 4: Non-routine projects for 2018/19 to 2023/24

Non-routine projects are asset-related projects required to support service delivery which are undertaken less frequently than annually.

Table 10: Non-routine projects (or planning items) 2018/19 to 2023/24

Year	Project Title	Project Scope	Budget ($'000)
2018/19	Bjelke-Petersen Dam – Comprehensive inspection	SunWater conducts comprehensive inspections on its dams and weirs every five years to maintain current asset condition knowledge and improve the non-routine maintenance programs.	118
	Bjelke-Petersen Dam – Refurbish guard valve 1	The 2013 comprehensive inspection recommended that guard valves 1 and 2 be refurbished to remove corrosion, repaint and replace the seals. Inspections since 2013 indicate that both valves should be done in 2018/19. The comprehensive shutdown will be used as much as possible to reduce costs.	79
	Silverleaf Weir – Options study	This is an allowance to complete the options study in 2018/19.	58
	Bjelke-Petersen Dam – Refurbish guard valve 2	The 2013 comprehensive inspection recommended that guard valves 1 and 2 be refurbished to remove corrosion, repaint and replace the seals. Inspections since 2013 indicate that both valves should be done in 2018/19. The comprehensive shutdown will be used as much as possible to reduce costs.	79
	Other works	There are 4 other non-routine projects for 2018/19.	60
	2018/19 Total		**394**
2019/20	Silverleaf Weir – Refurbishment	The options outcome for Silverleaf Weir has not yet been finalised so the full scope is not known; however, it is expected that some or all of the timber will need replacing, as well as the intake/outlet structure and gate. The funds are an allowance based on a similar full refurbishment of Whetstone Weir in about 2005. This is an allowance in year one of the project.	1175
	Bjelke-Petersen Dam – Regulating valve No. 2	Regulating valve No. 2 requires patch painting to remove corrosion to extend its life. If possible, it will be done on site, but the budget covers removal to Bundaberg if needed.	60
	Bjelke-Petersen Dam – Trash rack painting	A number of trash racks require patch painting to remove corrosion to extend their life. The full extent will be known after the 2018/19 inspection.	57

Year	Project Title	Project Scope	Budget ($'000)
	Bjelke-Petersen Dam – Replace secondary winch	The hydraulic power pack that drives the winch to remove the secondary bulkhead needs replacing.	52
	Joe Sippel Weir – Replace joint sealant	Sealant between the joints on the left and right banks of Joe Sippel Weir is deteriorating. It needs to be replaced to prevent water from penetrating beneath the slabs during floods.	37
	Other works	There are 7 other non-routine projects for 2019/20.	183
	2019/20 Total		**1564**
2020/21	Silverleaf Weir – Refurbishment	The options outcome for Silverleaf Weir has not yet been finalised so the full scope is not known; however, it is expected that some or all of the timber will need replacing, as well as the intake/outlet structure and gate. The funds are an allowance based on a similar full refurbishment of Whetstone Weir in about 2005. This is an allowance in year two of the project as its expected to span across two winter/dry seasons.	1825
	Bjelke-Petersen Dam – Regulating valve No. 1	Regulating valve No. 1 requires patch painting to remove corrosion to extend its life. If possible, it will be done on site, but the budget covers removal to Bundaberg if needed.	48
	Bjelke-Petersen Dam – Bathymetric survey	An underwater survey is to be conducted to identify all hidden obstacles. This is a public safety initiative.	61
	Joe Sippel and Silverleaf Weir – Storage survey	This survey is to reaffirm the storage capacity of Joe Sippel Weir and Silverleaf Weir. It is believed that floods over the past few years may have reduced the storage capacity.	49
	Other works	There are 3 other non-routine projects for 2020/21.	40
	2020/21 Total		**2023**
2021/22	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 Weir – Comprehensive inspections	SunWater conducts comprehensive inspections on its 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.	33
	Other works	There is 1 other non-routine project for 2021/22.	30

Year	Project Title	Project Scope	Budget ($'000)
	2021/22 Total		**80**
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.	17
	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 comprehensive risk assessment.	370
	Bjelke-Petersen Dam – Anchor tests	A number of 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.	64
	Bjelke-Petersen Dam – Clean pressure relief drains	The spillway pressure relief drains need cleaning every five years or so to prevent build-up of calcite and debris.	49
	Other works	There is 1 other non-routine project for 2022/23.	19
	2022/23 Total		**519**
2023/24	Bjelke-Petersen Dam – Comprehensive inspection	SunWater conducts comprehensive inspections on its dams and weirs every five years to maintain current asset condition knowledge and improve the non-routine maintenance programs.	132
	Bjelke-Petersen Dam – Comprehensive risk assessment	A comprehensive risk assessment follows on from the 20 year safety review to assess the level of risks identified and further refine their priority for refurbishment.	179
	Options study – Refurbish access bridge	This is an allowance to refurbish the spillway access bridge following the Level 2 bridge assessment in previous years.	26
	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.	26
	Other works	There are 7 other non-routine projects for 2023/24.	91
	2023/24 Total		**454**

Contact us

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

Email: nspfeedback@sunwater.com.au

Post: NSP Feedback
PO Box 15536 City East
Brisbane Qld 4002

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

Addendum to the 2018/19 to 2023/24 Network Service Plan

Barker Barambah Bulk Water Service Contract

6 November 2018

Final

Contents

How to read this addendum

Several changes have been made to our forecast costs since we published our 2019 Network Service Plan for the Barker Barambah Bulk Water Service Contract in July 2018. We have therefore prepared this addendum to aid our customers' understanding of the changes and to assist the Queensland Competition Authority (QCA) in their review.

We have:

- updated for 2017/18 actual expenditure. This has positively impacted the annuity balances for this service contract going forward, when compared to the 2019 Network Service Plan.
- revised market parameters, such as escalators and the Weighted Average Cost of Capital, for the latest available information
- used the scheme's 15-year average water usage over the 2002/03 to 2016/17 period to determine the Part B cost per megalitre
- removed the costs of providing 1058 ML of free water to the South Burnett Regional Council from irrigation customer costs
- added a table showing forecast dam improvement program (DIP) expenditure for this service contract.

Note:

- All financial figures contained in this addendum are nominal dollars.
- Totals may not add due to rounding.

Table 1: Irrigation charges for 2018/19 – Restatement of Table 2 from the 2019 Network Service Plan

Product		2018/19 ($/ML)	Cost ($/ML)[1,2,3]	Subsidy ($/ML)
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	25.30	31.19	5.89
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	4.49	9.83	5.34

1. Costs reflect lower bound cost recovery, ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
2. The notional High Priority Allocation Charge cost per megalitre is $118.11.
3. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 72 per cent (previously 76 per cent at the time of the 2012 review).

Table 2: Routine operating expenditure[1] – Restatement of Table 6 from the 2019 Network Service Plan

	2016/17			2017/18[2]		2018/19[2]		2019/20	2020/21	2021/22	2022/23	2023/24
	SunWater Actual $'000	QCA Recommended $'000	Variance $'000	SunWater Actual $'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
Electricity	74.9	21.3	53.6	39.5	21.9	40.0	22.4	39.6	38.7	40.1	43.6	43.3
Insurance	211.3	87.3	123.9	192.5	89.5	204.9	91.8	209.1	213.9	218.8	223.8	229.0
Operations	441.4	477.5	(36.1)	573.9	489.5	705.5	501.7	695.0	712.9	731.3	749.8	768.7
Operations Total	**727.6**	**586.2**	**141.4**	**805.9**	**600.9**	**950.4**	**615.9**	**943.7**	**965.5**	**990.1**	**1017.2**	**1041.0**
Preventative maintenance	102.9	115.4	(12.5)	93.6	118.3	146.8	121.2	144.3	148.0	151.9	155.7	159.7
Corrective maintenance	40.7	53.7	(12.9)	56.2	55.0	40.2	56.4	39.6	40.6	41.7	42.7	43.8
Routine Total	**871.2**	**755.3**	**116.0**	**955.7**	**774.2**	**1137.3**	**793.5**	**1127.6**	**1154.1**	**1183.7**	**1215.6**	**1244.5**

1. SunWater's 2019/20 to 2023/24 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. 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%.

Table 3: Dam improvement program

	2019/20 Forecast $'000	2020/21 Forecast $'000	2021/22 Forecast $'000	2022/23 Forecast $'000	2023/24 Forecast $'000
DIP Expenditure[1]	-	104.8	402.8	1101.1	3385.9
DIP Contribution[2]	-	2.1	12.4	43.2	135.1
DIP Contribution - % of Total Costs	0.0%	0.1%	0.4%	1.4%	4.3%

1. DIP expenditure reflects 50 per cent of the current cost estimate, as a detailed business case has not yet been completed.
2. The DIP contribution is based on an "as incurred" approach for transparency of potential cost impacts on customers to 2023/24.

Table 4: Annuity balance – Restatement of Table 8 from the 2019 Network Service Plan

	2016/17 Actual $'000	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[1]	(1094.9)	(1121.7)	(1156.7)	(1379.1)	(2544.7)	(2974.8)	(1478.0)	(321.8)
Spend	(190.7)	(202.9)	(394.0)	(1564.2)	(2022.3)	(79.7)	(519.6)	(453.1)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[2]	245.8	252.0	258.3	264.1	1741.0	1750.5	1762.2	1775.2
Interest/financing costs	(82.0)	(84.0)	(86.6)	(103.3)	(148.8)	(173.9)	(86.4)	(18.8)
SunWater – Closing balance	**(1121.7)**	**(1156.7)**	**(1379.1)**	**(2782.4)**	**(2974.8)**	**(1478.0)**	**(321.8)**	**981.4**
QCA – Closing balance	**(712.2)**	**(513.6)**	**(579.4)**					
Difference	(409.5)	(643.1)	(799.6)					

1. 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. Table 5 provides further details.
2. 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 (CPI) for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based on SunWater's forecast.

Table 5: Adjustments to 2020/21 opening annuity balance

Adjustment	$'000
Actual spend adjustment	(11)
Annuity income difference	126
Interest difference	(2)
Alignment to previously reported data	3
Interest	122
Total	**238**

Table 6: Cost building blocks and notional cost allocations

	2018/19 Forecast $'000	2019/20 Forecast $'000	2020/21 Forecast $'000	2021/22 Forecast $'000	2022/23 Forecast $'000	2023/24 Forecast $'000
Cost building blocks						
Routine costs	1137.3	1127.6	1154.1	1183.7	1215.6	1244.5
Non-routine costs (Annuity contribution)	258.3	264.1	1741.0	1750.5	1762.2	1775.2
Dam improvement program[1]	-	-	-	-	-	-
Working capital	0.9	0.9	-	-	-	-
Revenue offsets	(3.0)	(3.1)	(3.2)	(3.2)	(3.3)	(3.4)
Transfers (Distribution losses)	-	-	-	-	-	-
Total costs	**1393.6**	**1389.5**	**2892.0**	**2930.9**	**2974.5**	**3016.2**
Notional cost allocations						
Irrigation customers	1096.0	1092.2	2152.2	2182.6	2216.8	2248.9
Urban/Industrial customers	199.6	199.5	505.9	511.6	517.9	524.4
SunWater	98.0	97.8	234.0	236.7	239.8	242.9
Total costs	**1393.6**	**1389.5**	**2892.0**	**2930.9**	**2974.5**	**3016.2**

1. For the purposes of this table, DIP costs have been excluded.

Table 7: Historical actual water usage

Year	Usage (ML)
2002/03	25,717
2003/04	16,576
2004/05	24,040
2005/06	20,671
2006/07	1281
2007/08	3434
2008/09	7546
2009/10	1618
2010/11	2651
2011/12	7974
2012/13	9819
2013/14	24,852
2014/15	17,435
2015/16	15,187
2016/17	18,010
15-year average	**13,121**