2018/19 to 2023/24 Network Service Plan

Lower Mary River Distribution Service Contract

31 July 2018

Final

Contents

Our plan for Lower Mary River

We're focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Lower Mary River Distribution 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 replacing customer meters on an as needs basis to ensure our customers have accurate water metering in place. We are also continuing to implement an efficient and effective preventative maintenance program, with a focus on ensuring the Service Contract's assets continue to perform reliably.

In addition, we are launching a pilot for a new collaborative form of customer engagement in 2018/19 with the establishment of the Lower Mary Customer Advisory Board.

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.

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.

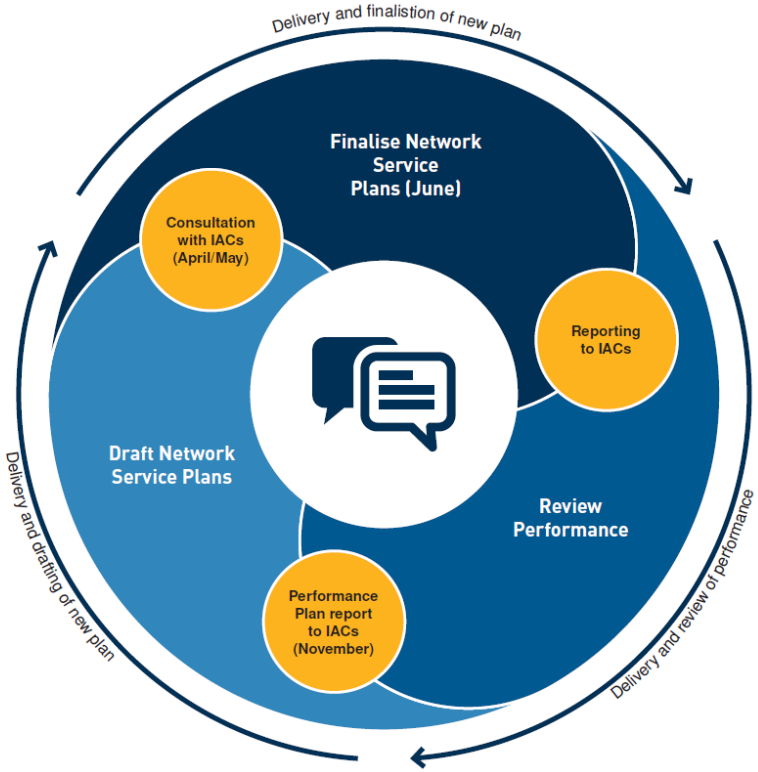
To have your say and shape future NSPs, please contact us via email or post:

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 166 customers in this Service Contract are irrigators of sugar cane. The water entitlements for each customer segment are shown in Table 1.

Table 1: Water entitlement and usage data[1]

Customer Segment	Total Water Entitlements (ML)	High Priority Water Entitlements (ML)	Medium Priority Water Entitlements (ML)	Water Deliveries 2016/17 (ML)
Irrigation	9962	0	9962	9665
Industrial	0	0	0	1
SunWater (excluding distribution loss)	6000	0	6000	2
SunWater distribution loss	4912	324	4588	5321
Total	**20,874**	**324**	**20,550**	**14,989**

1. Distribution system only.

The 2018/19 charges and cost per megalitre are shown in Table 2. Overall, the Lower Mary River Bulk Water Service Contract is not expected to fully recover irrigation's share of costs.

Table 2: Irrigation charges for 2018/19[1]

Product	Charge type	2018/19 ($/ML)	Cost ($/ML)[2,3]	Subsidy ($/ML)
Medium Priority Allocation Charge – Channel Distribution	Channel Distribution – Part C (fixed charge based upon entitlement)	43.59	77.18	33.59
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	68.56	63.70	N/A

1. This table includes distribution charges only. For river charges (Part A and Part B) please refer to the Bulk Water Service Contract NSP.
2. 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.
3. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 48 per cent (previously 42 per cent).

2.2 Service targets

SunWater and customers have agreed Water Supply Arrangements and Service Targets for the Lower Mary River Distribution Service Contract.

Table 3 below sets out our 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	3
Maximum number of interruptions[1]	Planned or unplanned interruptions per water year	6	1

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

2.3 Key infrastructure

Table 4 lists the key infrastructure used to deliver distribution services to our customers in Lower Mary River.

Table 4: Key infrastructure

Asset	Description	Capacity (ML/day)
Copenhagen Bend pump station	2 submersible pumps	65
Owanyilla pump station	2 pumps	243
Main Road pump station	2 pumps	62
Walker Point pump station	2 submersible pumps	75

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 Lower Mary River Distribution 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 Lower Mary River Distribution Service Contract in 2018/19.

In 2018/19, SunWater plans to increase routine and non-routine expenditure for the Lower Mary River Distribution 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]

Lower Mary River Service Contract	2014/15 Actual $'000	2015/16 Actual $'000	2016/17 Actual $'000	2017/18 Estimate $'000	2018/19 Forecast $'000
Revenue					
Irrigation	377.5	415.8	971.4	584.8	663.6
Community Service Obligation	751.1	748.5	745.2	741.3	718.8
Industrial[2]	2.4	2.4	2.5	2.5	2.6
Revenue transfers[3]	(71.3)	(73.3)	(85.5)	(95.7)	(98.1)
Drainage	-	-	-	-	-
Other	24.5	3.9	-	-	0.0
Insurance proceeds – flood	-	-	-	-	-
Revenue Total	**1084.2**	**1097.3**	**1633.6**	**1232.9**	**1286.8**
Less – Routine expenditure	(953.5)	(985.9)	(1096.1)	(1045.8)	(1228.8)
Less – Non-routine expenditure					
Annuity funded	(33.1)	(114.8)	(239.2)	(270.0)	(390.0)
Non annuity funded[4]	(14.7)	(20.9)	-	-	-
Surplus (deficit)	**83.0**	**(24.3)**	**298.2**	**(82.8)**	**(331.9)**

1. Totals may not add due to rounding.
2. Forecast revenues for industrial customers are based on current contractual arrangements.
3. Revenue transfers represent the cost of bulk water supplies delivered through the distribution system(s). The revenue accrues to the distribution system before it is transferred to the Bulk Water Service Contract as a contribution to the cost of the bulk water service. The QCA established the transfer cost for irrigation supplies at the cost reflective bulk water tariff.
4. 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

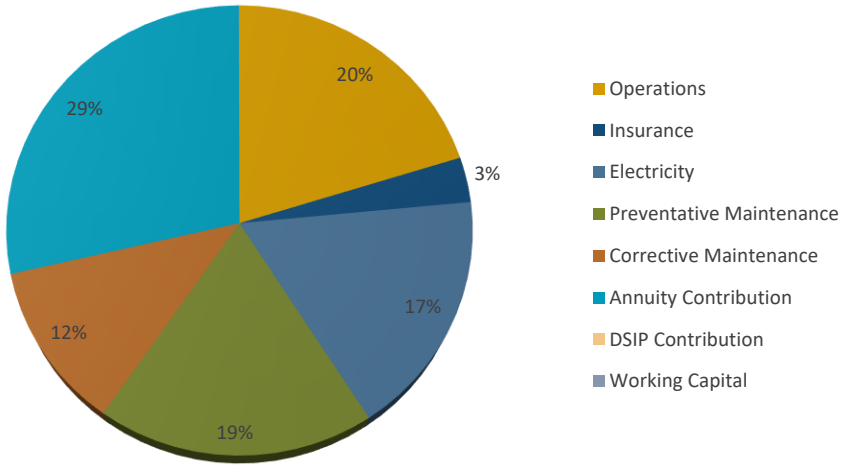
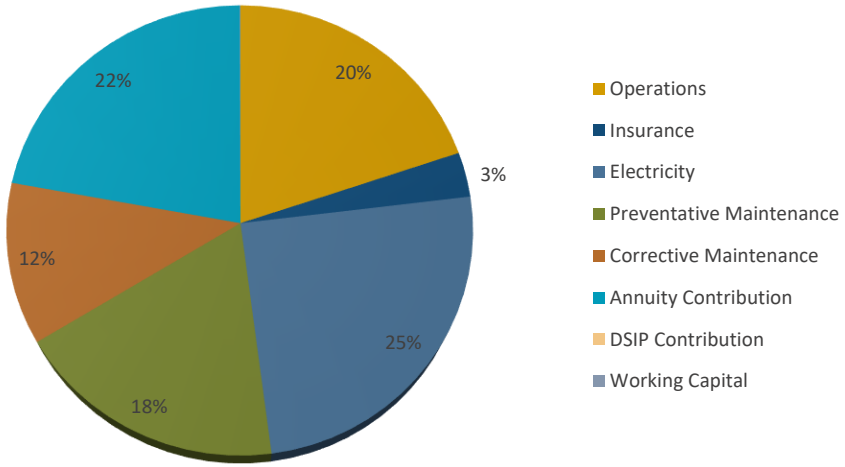


Figure 3: Breakdown of total service contract costs – 2019/20 to 2023/24 forecasts



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 a slight increase in Lower Mary River Distribution 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 2.36 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]

Lower Mary River 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	498.1	194.7	303.4	333.0	199.5	300.0	204.5	452.1	449.8	464.7	476.8	467.7
Insurance	56.4	46.3	10.1	56.4	47.5	55.7	48.7	57.0	58.3	59.7	61.0	62.4
Operations	253.9	216.0	38.0	268.1	221.4	348.6	226.9	350.9	360.2	369.8	379.7	389.8
Operations Total	**808.4**	**457.0**	**351.5**	**657.5**	**468.4**	**704.3**	**480.1**	**860.0**	**868.4**	**894.2**	**917.5**	**920.0**
Preventative maintenance	142.4	252.5	(110.1)	235.3	258.8	321.8	265.3	323.9	332.5	341.4	350.5	359.9
Corrective maintenance	145.3	158.6	(13.3)	153.0	162.6	202.6	166.6	204.5	209.8	215.3	220.9	226.7
Routine Total	**1096.1**	**868.0**	**228.1**	**1045.8**	**889.7**	**1228.8**	**912.0**	**1388.3**	**1410.7**	**1450.9**	**1489.0**	**1506.6**

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

Lower Mary River Distribution Service Contract's total operations budget in 2018/19 is 46.70 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by higher electricity costs and local area support costs.

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. As flagged in the draft NSPs, SunWater is considering self-insurance in the distribution schemes in order to achieve further cost savings. However, given the potential consequences for customers should an event occur, SunWater will undertake more detailed consultation with customers before making such a significant change to policy coverage

4.2 Preventative maintenance

Preventative maintenance underpins the ongoing operational performance and service capacity of Lower Mary River Distribution 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. Lower Mary River Distribution Service Contract's preventative maintenance for 2018/19 is budgeted to be 21.32 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by local area support costs.

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.

Lower Mary River Distribution Service Contract's corrective maintenance for 2018/19 is budgeted to be 21.60 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by local area support costs.

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.

SunWater has developed a whole of life strategy around the replacement and maintenance of its asset portfolio which is based on the concept of optimised life. The key drivers in this approach are the risk and condition of each asset. The current condition of an asset drives an estimate of the future work required to ensure an asset continues to be able to provide the required level of service into the future. SunWater maintains a program of asset inspections and condition assessments which continually updates our knowledge of asset condition. This information feeds into the annual review of the renewals program. Items requiring immediate maintenance or replacement are included in the budget for the following year.

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]

Lower Mary River 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	-	-	-	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	239.2	49.9	189.3	270.0	492.2	390.0	492.4	698.9	596.4	973.7	730.2	1026.7
Non-routine total	**239.2**	**49.9**	**189.3**	**270.0**	**492.2**	**390.0**	**492.4**	**698.9**	**596.4**	**973.7**	**730.2**	**1026.7**
Non annuity funded												
Other	**-**			**-**		**-**		**-**	**-**	**-**	**-**	**-**

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 minor differences in the expenditure profile allowed by the QCA in 2012 and actual expenditure incurred by SunWater between 2012/13 and 2018/19.

Table 8: Annuity balance[1]

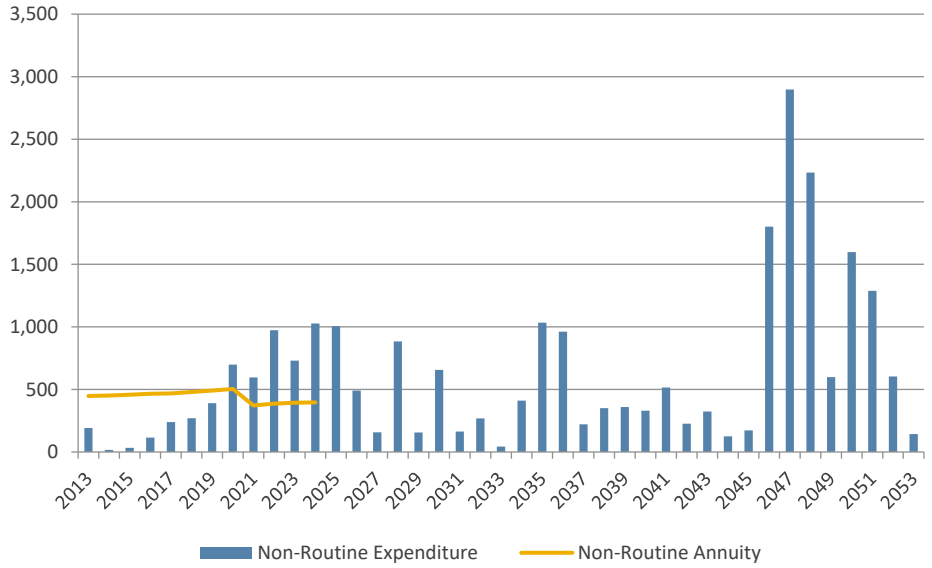
Lower Mary River Service Contract	2016/17 Actual $'000	2017/18 Estimate $'000	2018/19 Forecast $'000	2019/20 Forecast $'000	2020/21 Forecast $'000	2021/22 Forecast $'000	2022/23 Forecast $'000	2023/24 Forecast $'000
Annuity								
Opening balance[2]	1111.1	1422.9	1738.9	1970.7	2218.4	2122.2	1657.4	1416.8
Spend	(239.2)	(270.0)	(390.0)	(698.9)	(596.4)	(973.7)	(730.2)	(1026.7)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[3]	467.8	479.5	491.5	503.7	371.8	386.1	393.7	396.8
Interest/financing costs	83.2	106.6	130.2	147.6	128.4	122.8	95.9	82.0
SunWater – Closing Balance	**1422.9**	**1738.9**	**1970.7**	**1923.1**	**2122.2**	**1657.4**	**1416.8**	**868.9**
QCA – Closing Balance	**1547.3**	**1650.4**	**1773.1**					
Difference	(124.4)	88.5	197.6					

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.

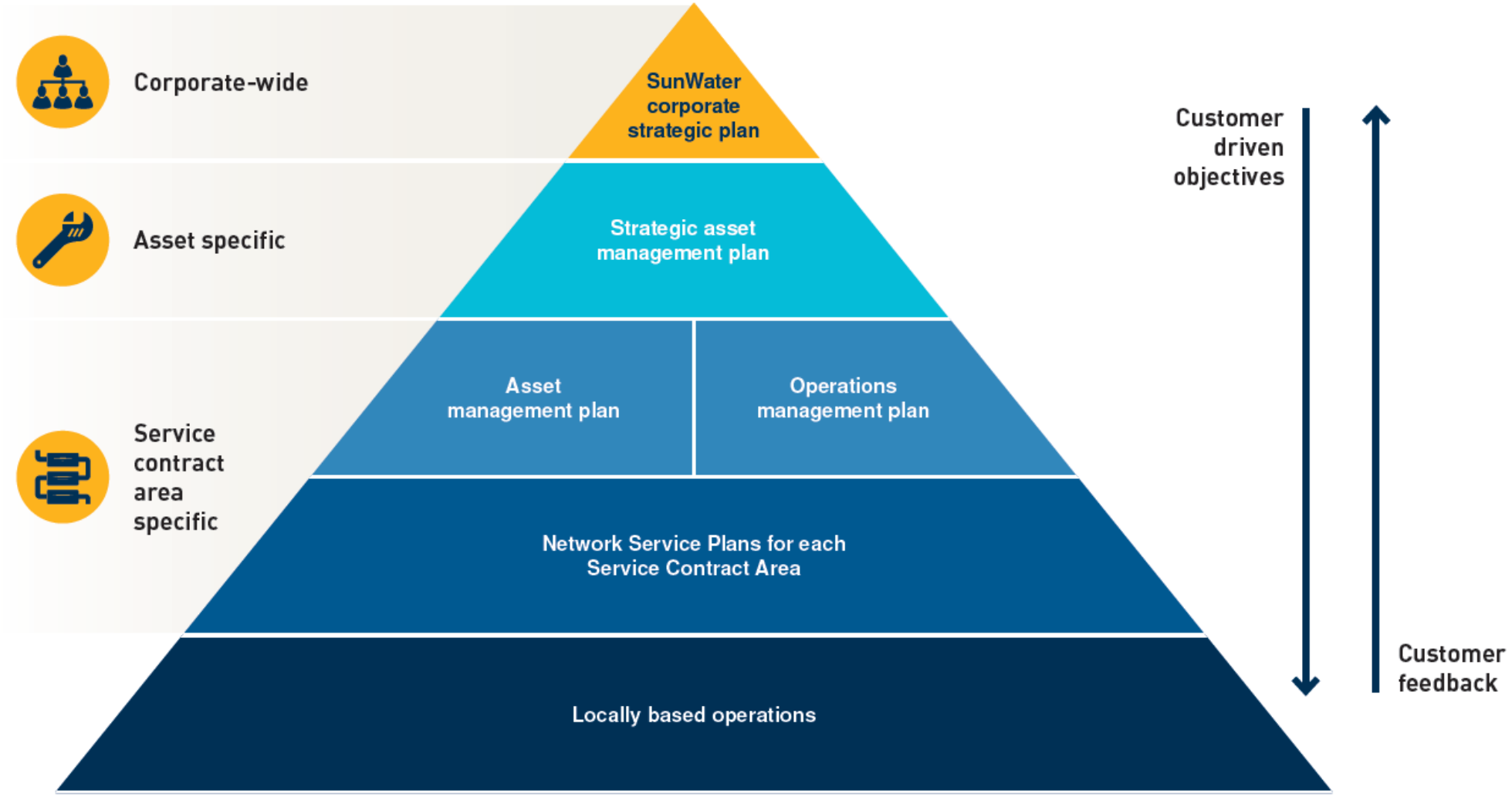
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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]

Lower Mary River 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	108.8	77.5	31.3	79.6	80.0	(0.4)	77.3	82.5	(5.2)	99.9	84.6	95.0	86.7	97.8	100.6	103.6	106.6	109.7
Contractors	0.2	-	0.2	1.7	-	1.7	11.8	-	11.8	-	-	5.0	-	5.1	5.2	5.4	5.5	5.6
Materials	0.4	0.5	(0.1)	1.3	0.5	0.8	0.4	0.6	(0.2)	1.0	0.6	1.0	0.6	1.0	1.0	1.1	1.1	1.1
Electricity	204.4	168.5	36.0	313.0	181.9	131.1	498.1	194.7	303.4	333.0	199.5	300.0	204.5	452.1	449.8	464.7	476.8	467.7
Insurance	67.0	44.8	22.3	60.2	45.5	14.7	56.4	46.3	10.1	56.4	47.5	55.7	48.7	57.0	58.3	59.7	61.0	62.4
Other	18.7	7.4	11.4	20.2	7.5	12.7	35.6	7.6	28.0	22.7	7.8	30.0	8.0	30.7	31.4	32.1	32.9	33.6
Local area support costs	79.7	-	79.7	53.6	-	53.6	66.5	-	66.5	77.9	-	121.6	-	123.6	126.8	130.1	133.5	137.0
Corporate support costs	42.3	81.2	(38.8)	21.5	79.8	(58.3)	26.8	81.5	(54.7)	46.2	83.6	61.8	85.7	58.4	60.0	61.5	63.1	64.8
Indirect costs	65.6	51.1	14.5	34.1	50.3	(16.2)	35.6	43.8	(8.2)	20.4	44.9	34.2	46.0	34.3	35.2	36.1	37.0	38.0
Preventative maintenance																		
Labour	76.1	82.8	(6.7)	75.6	85.4	(9.9)	44.0	88.2	(44.1)	85.9	90.4	89.3	92.6	91.9	94.6	97.3	100.2	103.1
Contractors	14.0	7.4	6.6	17.6	7.6	10.0	18.8	7.8	11.1	15.0	7.9	15.0	8.1	15.4	15.7	16.1	16.5	16.9
Materials	7.1	14.2	(7.1)	6.1	14.7	(8.6)	3.4	15.0	(11.5)	5.5	15.3	5.0	15.7	5.1	5.2	5.4	5.5	5.6
Other	19.0	6.3	12.7	12.0	6.5	5.5	4.3	6.6	(2.3)	6.7	6.8	8.0	7.0	8.2	8.4	8.6	8.8	9.0
Local area support costs	56.1	-	56.1	64.9	-	64.9	37.9	-	37.9	67.0	-	114.3	-	116.1	119.2	122.3	125.5	128.7
Corporate support costs	26.9	92.1	(65.2)	22.9	90.5	(67.6)	13.7	92.5	(78.8)	37.7	94.8	58.0	97.2	54.9	56.4	57.8	59.3	60.9
Indirect costs	42.7	50.1	(7.4)	41.8	49.8	(7.9)	20.3	42.5	(22.2)	17.5	43.6	32.1	44.7	32.2	33.1	33.9	34.8	35.7
Corrective maintenance																		
Labour	34.2	43.3	(9.0)	48.7	44.7	4.0	37.3	46.1	(8.7)	47.3	47.2	47.3	48.4	48.7	50.1	51.6	53.1	54.6
Contractors	5.5	7.9	(2.4)	4.7	8.2	(3.5)	6.3	8.3	(2.0)	15.0	8.5	15.0	8.7	15.4	15.7	16.1	16.5	16.9
Materials	19.0	17.6	1.4	13.7	18.2	(4.5)	13.9	18.5	(4.6)	10.3	19.0	15.0	19.4	15.3	15.7	16.1	16.4	16.8
Other	6.6	17.9	(11.3)	9.2	18.5	(9.4)	26.5	18.8	7.7	12.1	19.3	17.0	19.8	17.4	17.8	18.2	18.6	19.0
Local area support costs	24.9	-	24.9	41.9	-	41.9	31.2	-	31.2	36.9	-	60.5	-	61.5	63.1	64.8	66.5	68.2
Corporate support costs	13.6	46.1	(32.5)	15.2	45.4	(30.2)	12.8	46.4	(33.6)	21.8	47.5	30.7	48.7	29.1	29.8	30.6	31.4	32.2
Indirect costs	20.5	24.2	(3.7)	26.6	24.0	2.6	17.2	20.5	(3.3)	9.6	21.0	17.0	21.5	17.1	17.5	18.0	18.4	18.9
Routine total	953.5	840.9	112.5	985.9	859.0	126.9	1096.1	868.0	228.1	1045.8	889.7	1228.8	912.0	1388.3	1410.7	1450.9	1489.0	1506.6
Non-routine spend																		
Labour	5.9	15.8	(9.9)	9.8	4.9	4.8	21.4	9.2	12.2	43.5	63.2	53.9	63.2	107.9	109.2	103.2	67.3	110.8
Contractors	8.7	17.2	(8.6)	35.6	5.3	30.3	72.0	9.8	62.2	69.3	68.5	201.0	68.5	344.4	148.6	567.4	54.5	387.8
Materials	7.7	17.2	(9.6)	48.8	5.3	43.5	55.6	9.8	45.7	87.6	68.5	31.7	68.5	41.7	138.3	105.3	485.2	275.0
Other	0.0	9.4	(9.4)	0.0	2.9	(2.9)	47.2	5.4	41.8	0.6	37.4	-	37.4	11.2	5.2	-	1.3	57.6
Local area support costs	4.8	20.6	(15.9)	8.4	6.1	2.3	18.4	11.2	7.3	33.9	172.1	48.9	172.2	60.8	57.1	69.6	39.1	60.9
Corporate support costs	2.7	-	2.7	6.8	-	6.8	14.7	-	14.7	26.2	-	35.1	-	89.6	90.6	85.7	55.9	91.9
Indirect costs	3.3	9.9	(6.6)	5.4	2.9	2.4	9.9	4.5	5.4	8.9	82.6	19.4	82.6	43.2	47.4	42.5	26.8	42.7
Non-routine total	33.1	90.2	(57.1)	114.8	27.5	87.3	239.2	49.9	189.3	270.0	492.2	390.0	492.4	698.9	596.4	973.7	730.2	1026.7
Total spend	**986.5**	**931.2**	**55.4**	**1100.7**	**886.5**	**214.2**	**1335.4**	**918.0**	**417.4**	**1315.7**	**1382.0**	**1618.7**	**1404.4**	**2087.3**	**2007.1**	**2424.6**	**2219.1**	**2533.3**

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 Lower Mary River Distribution Service Contract is allocated 1.408 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 Inspector-General Emergency Management 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 Lower Mary River Distribution Service Contract is allocated 0.473 per cent of the forecast total indirect costs.

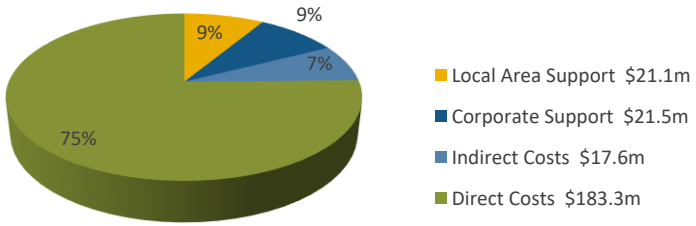
Corporate support costs

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 Lower Mary River Distribution Service Contract is allocated 0.700 per cent of the forecast total corporate support costs.

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



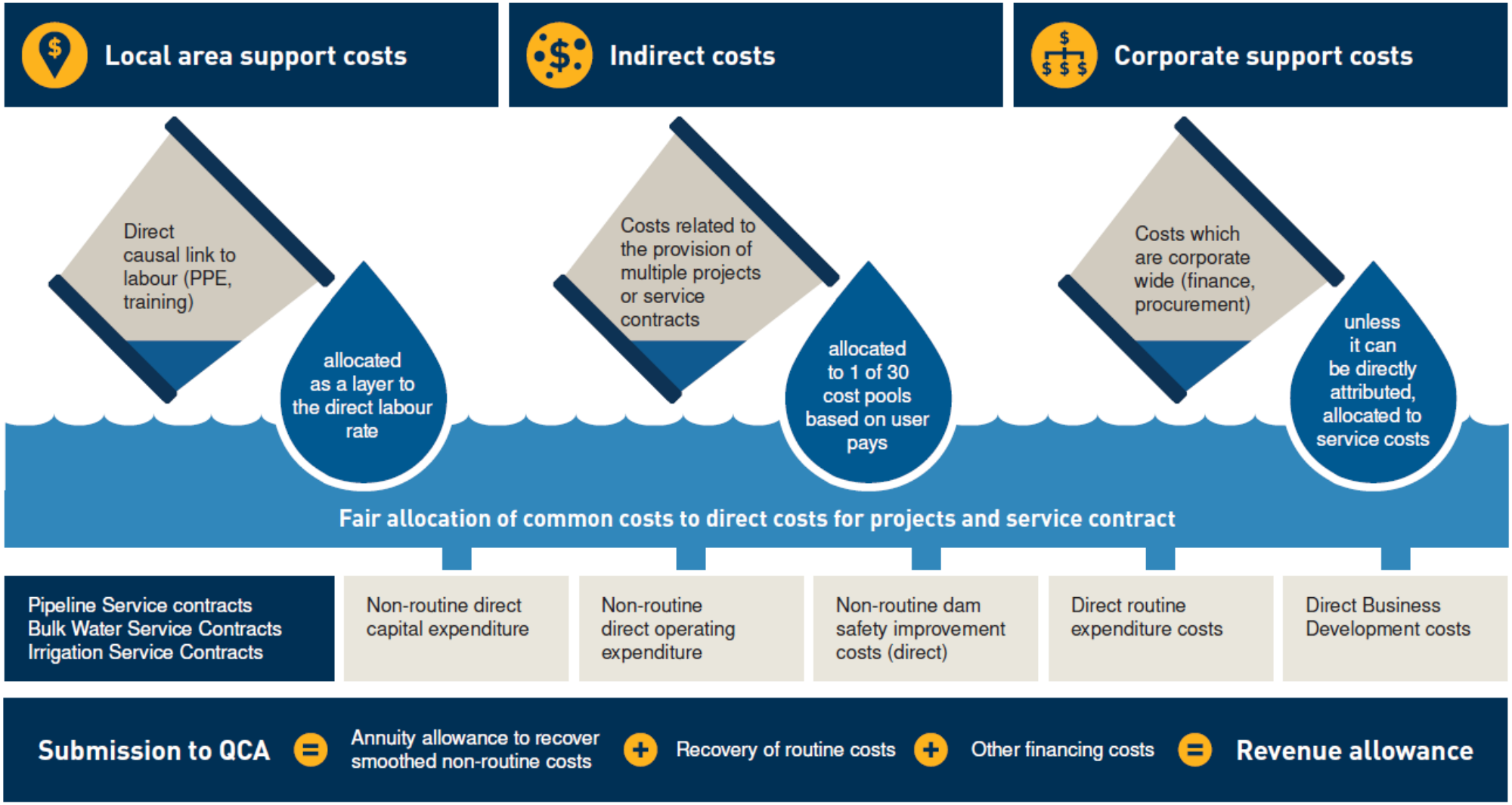
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater's methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and 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, regulating and monitoring channel flows, and monitoring customer deliveries
- emergency responses for channel overflows and other emergency events
- 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.

Preventative maintenance

Preventative maintenance for the Lower Mary River Distribution 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), channels (regulator gates, civil works, signs, structures, etc.), pipelines (valves, air valves, scours easements etc.) and other infrastructure.
- Servicing — planned maintenance activities carried out routinely on physical assets including valves, cranes, sump pumps and associated equipment.
- Weed control — management of weeds, including:
  - slashing channels and drains
  - Copper Sulphate treatment
  - spraying and other activities to control nuisance and noxious weeds.

Scheduled corrective maintenance

Scheduled corrective maintenance varies by asset type and typically includes:

- Channels:
  - de-silting channels and catch drains
  - erosion control and repairing rock protection works
  - repairing fencing, concrete structures, regulator gates, and control valves.
- 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 (balancing storages and reservoirs):
  - 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, channels 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	Work Items	Work Description	Budget ($'000)
2018/19	Owanyilla pump station – Unit 1 pump, motor and suction valve	Works based on standard asset refurbishment period by asset type. Works intended to reinstate condition to as-new and will be scheduled as a single project to minimise unit down time.	128
	Copenhagen Bend pump station – Refurbish submersible pump No. 1	Refurbishment based on standard asset refurbishment period and service history. Works to ensure continued reliable operation and performance.	53
	Walker Point pump station – Control system replacement options analysis	Options analysis to be undertaken to better define system replacement strategy, costs and timing to ensure prudency and efficiency.	72
	Copenhagen Bend system – Metering	Staged upgrade of Copenhagen Bend system customer metering fleet to improve metering accuracy, scheme delivery efficiency and compliance with SunWater standards.	51
	Mains Road pump station – Refurbish pump No. 2 and motor No. 2	Refurbishment based on standard asset refurbishment period and service history. Works to ensure continued reliable operation and performance.	36
	Other works	The balance of the 2018/19 program consists of Owanyilla and Copenhagen Bend pump station switchboard and control system options analyses, and other minor works.	50
	2018/19 Total		**390**
2019/20	Owanyilla pump station – Unit 2 pump, motor and suction valve	Works based on standard asset refurbishment period by asset type. Works intended to reinstate condition to as-new and be scheduled as a single project to minimise unit down time.	307
	Walker Point pump station – Control system replacement works (Stage 1)	Replacement works, design/scoping and procurement stage of works, subject to 2018/19 options analysis.	93
	Copenhagen Bend system – Metering	Staged upgrade of Copenhagen Bend system customer metering fleet to improve metering accuracy, scheme delivery efficiency and compliance with SunWater standards.	41

Year	Work Items	Work Description	Budget ($'000)
	Mains Road pump station – Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) replacement (Stage 1)	PLC and SCADA system replacement based on standard asset replacement lives and equipment obsolescence. Renewing of equipment to provide continued reliable service and supportability.	62
	Walker Point – Refurbish regulating gate	Refurbish regulating gate based on Float Regulating Gate Strategy to achieve least whole-of-life cost and manage asset in perpetuity.	38
	Other works	The balance of the 2019/20 program consists of pump and motor refurbishments, third-party crane inspections, pump station high voltage (HV) testing, a switchboard options analysis and a small number of minor works.	158
	2019/20 Total		**699**
2020/21	Walker Point pump station – Control system replacement works (Stage 2)	Equipment replacement to reinstate control system reliability, performance and supportability. Continuation of 2019/20 works. Project scope, timing and budget subject to the options analysis.	109
	Mains Road pump station – PLC and SCADA replacement (Stage 2)	Continuation of the 2019/20 project. Renewing of equipment to provided continued reliable service and supportability.	102
	Copenhagen Bend pump station – Switchboard, control and PLC/SCADA replacement (Stage 1)	Replacement works based on standard asset replacement life and obsolescence. Design and procurement stage of project. Scope of works, timing and budget subject to the 2019/20 options analysis.	56
	Owanyilla pump station – Electrical control system replacement options analysis	Options analysis to be undertaken to better define system replacement strategy, costs and timing to ensure prudency and efficiency. Includes conceptual design of control system and switchboards (1 & 2), and cable replacement.	58
	Other works	The balance of the 2020/21 program consists of customer meter upgrades, pump, motor and valve refurbishments, and fencing and screen refurbishments.	271
	2020/21 Total		**596**
2021/22	Copenhagen Bend pump station – Switchboard, control and PLC/SCADA replacement (Stage 2)	Replacement works based on standard asset replacement life and obsolescence. Equipment supply, installation and commissioning stage of project. Scope of works, timing and budget subject to the 2019/20 options analysis.	632
	Owanyilla pump station – Electrical control system replacement (Stage 1)	Detailed design, procurement and supply of equipment. Scope of works, timing and budget subject to the 2020/21 options analysis.	276

Year	Work Items	Work Description	Budget ($'000)
	Copenhagen Bend system – Metering	Staged upgrade of Copenhagen Bend system customer metering fleet to improve metering accuracy, scheme delivery efficiency and compliance with SunWater standards.	30
	Other works	The balance of the 2021/22 program consists of a third-party hoist and crane inspection, isolation valve and inlet screen refurbishment.	36
	2021/22 Total		**974**
2022/23	Owanyilla pump station – Electrical control system replacement (Stage 2)	Supply of services, installation and commissioning of equipment. Scope of works, timing and budget subject to the 2020/21 options analysis.	356
	Owanyilla pump station – Switchboard No. 2 replacement works (Stage 1)	Detail design and procurement of materials and equipment. Scope of works, timing and budget subject to the 2020/21 options analysis.	245
	Copenhagen Bend system – Metering	Staged upgrade of Copenhagen Bend system customer metering fleet to improve metering accuracy, scheme delivery efficiency and compliance with SunWater standards.	27
	Walker Point pump station – Switchboard replacement options analysis	Works to better define replacement strategy, costs and timing to ensure prudency and efficiency. Scope to incorporate switchboard/control system and cabling objectives.	29
	Other works	The balance of the 2022/23 program consists of third-party crane inspections, Main Roads pump station vacuum pump refurbishment and pump station HV testing.	73
	2022/23 Total		**730**
2023/24	Owanyilla pump station – Switchboard No. 2 replacement works (Stage 2)	Installation and commissioning of materials and equipment. This project will conclude the switchboard and control system activities at the pump station.	486
	Owanyilla pump station – Mains cable replacement	Cable replacement to be coordinated with switchboard and control system site works. Scope of works, timing and budget subject to the 2020/21 options analysis.	218
	Walker Point pump station – Mains cable replacement	Initial budget assigned to cable asset; however, these works will be coordinated with the switchboard and control system strategy. Funding provided for detailed design and procurement for switchboard/control system and cable replacement works. Installation and commissioning is scheduled for 2025 and 2026.	191

Year	Work Items	Work Description	Budget ($'000)
	Owanyilla pump station – Switchboard No. 1 replacement works	The switchboard work includes installation and commissioning of materials and equipment. This project will be run in conjunction with the switchboard No. 2 and control system and cables replacement works.	51
	Copenhagen Bend system – Metering	Staged upgrade of Copenhagen Bend system customer metering fleet to improve metering accuracy, scheme delivery efficiency and compliance with SunWater standards.	34
	Other works	The balance of the 2023/24 program consists of an Owanyilla pump station lift inspection and minor metalwork and structure refurbishments.	47
	2023/24 Total		**1027**

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

Lower Mary River Distribution 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 Lower Mary River Distribution 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 D cost per megalitre.

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[1] – Restatement of Table 2 from the 2019 Network Service Plan

Product	Charge type	2018/19 ($/ML)	Cost ($/ML)[2]	Subsidy ($/ML)
Medium Priority Allocation Charge – Channel Distribution	Channel Distribution – Part C (fixed charge based upon entitlement)	43.59	71.33	27.74
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	68.56	67.82	N/A

1. This table includes distribution charges only. For river charges (Part A and Part B) please refer to the Addendum to the Bulk Water Service Contract NSP.
2. 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.

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	498.1	194.7	303.4	249.2	199.5	300.0	204.5	435.3	425.3	440.2	479.1	476.0
Insurance	56.4	46.3	10.1	52.7	47.5	55.7	48.7	56.9	58.2	59.5	60.9	62.3
Operations	253.9	216.0	38.0	293.2	221.4	348.6	226.9	350.3	359.4	368.7	378.1	387.7
Operations Total	**808.4**	**457.0**	**351.5**	**595.1**	**468.4**	**704.3**	**480.1**	**842.5**	**842.9**	**868.5**	**918.1**	**926.1**
Preventative maintenance	142.4	252.5	(110.1)	214.4	258.8	321.8	265.3	323.3	331.7	340.4	349.0	357.9
Corrective maintenance	145.3	158.6	(13.3)	163.8	162.6	202.6	166.6	204.1	209.3	214.7	220.0	225.6
Routine Total	**1096.1**	**868.0**	**228.1**	**973.4**	**889.7**	**1228.8**	**912.0**	**1369.9**	**1383.9**	**1423.5**	**1487.2**	**1509.6**

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: 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]	1111.1	1422.9	1770.9	2005.0	2254.2	2158.8	1694.8	1454.8
Spend	(239.2)	(238.0)	(390.0)	(698.9)	(596.4)	(973.7)	(730.2)	(1026.7)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[2]	467.8	479.5	491.5	502.5	369.2	383.5	391.1	394.2
Interest/financing costs	83.2	106.6	132.6	150.2	131.8	126.2	99.1	85.1
SunWater – Closing balance	**1422.9**	**1770.9**	**2005.0**	**1958.8**	**2158.8**	**1694.8**	**1454.8**	**907.4**
QCA – Closing balance	**1547.3**	**1650.4**	**1773.1**					
Difference	(124.4)	120.5	232.0					

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 4 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 4: Adjustments to 2020/21 opening annuity balance

Adjustment	$'000
Actual spend adjustment	(10)
Annuity income difference	179
Intersafe project spend adjustment	0
Interest difference	(6)
Alignment to previously reported data	0
Interest	132
Total	**295**

Table 5: 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	1228.8	1369.9	1383.9	1423.5	1487.2	1509.6
Non-routine costs (Annuity contribution)	491.5	502.5	369.2	383.5	391.1	394.2
Dam improvement program	-	-	-	-	-	-
Working capital	1.2	1.3	-	-	-	-
Revenue offsets	(0.4)	-	-	-	-	-
Transfers (Distribution losses)	43.6	44.0	60.8	61.8	62.9	64.0
Total costs	**1764.6**	**1917.7**	**1814.0**	**1868.8**	**1941.3**	**1967.8**
Notional cost allocations						
Irrigation customers	914.8	995.0	941.4	969.9	1007.6	1021.3
Urban/Industrial customers	-	-	-	-	-	-
SunWater	828.4	901.0	852.5	878.2	912.4	924.9
Total costs	**1743.3**	**1896.1**	**1793.8**	**1848.1**	**1920.1**	**1946.2**

Table 6: Historical actual water usage

Year	Usage (ML)
2002/03	6262
2003/04	2079
2004/05	5990
2005/06	4110
2006/07	9081
2007/08	2283
2008/09	3464
2009/10	6257
2010/11	746
2011/12	2726
2012/13	8697
2013/14	12,979
2014/15	5864
2015/16	9144
2016/17	14,990
15-year average	**6311**