2018/19 to 2023/24 Network Service Plan

Bundaberg Bulk Water Service Contract

6 August 2018

Final

Contents

Our plan for Bundaberg

We're focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Bundaberg 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 dam safety compliance is maintained and that refurbishment and corrective work identified through our annual and five yearly comprehensive inspections at Fred Haigh Dam and other weirs 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. In the immediate future, shutters at Ben Anderson Barrage will also be replaced.

Together with continuing to implement an efficient and effective preventative maintenance program, we are focused 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.

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.

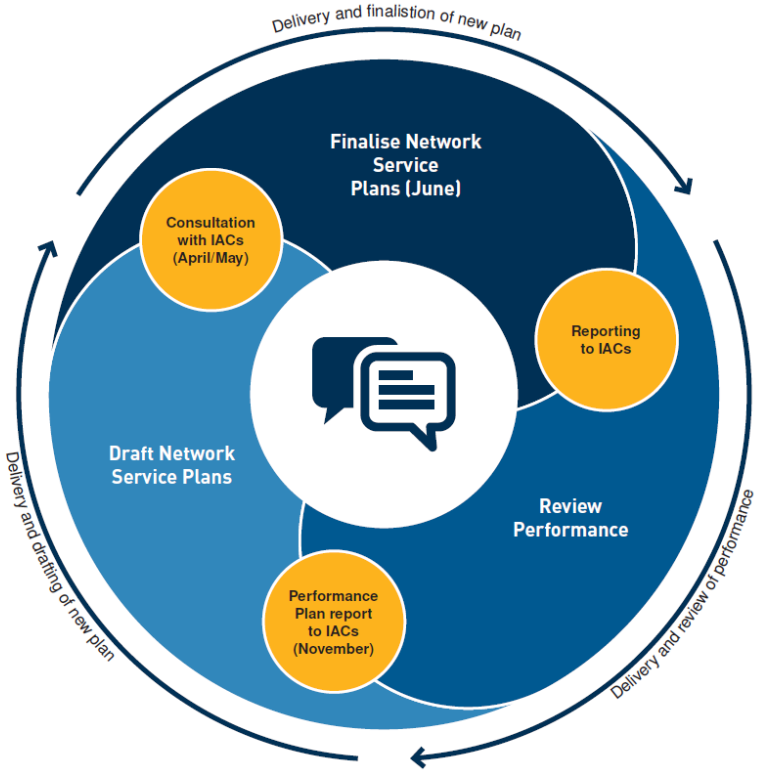
To have your say and shape future NSPs, please contact us via email or post:

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 1107 customers[1] in this Service Contract are irrigators who grow crop types including sugar cane, tomatoes, rockmelons, watermelons, capsicum, zucchini, beans, macadamia nuts and avocados. Water is also supplied to the city of Bundaberg and communities in the Bundaberg Regional Council area.

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

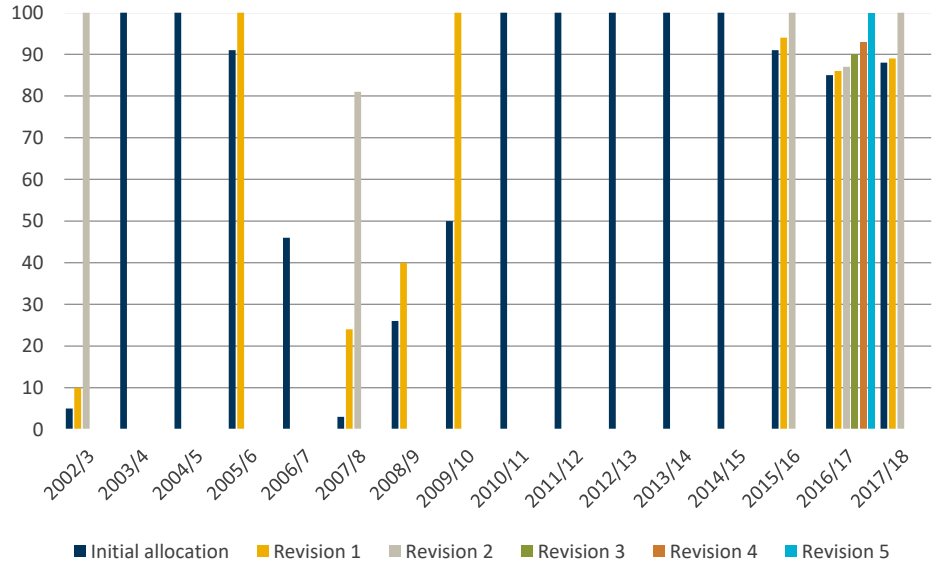
Table 1: Water entitlement and usage data[1]

Customer Segment	Total Water Entitlements (ML)	High Priority Water Entitlements (ML)	Medium Priority Water Entitlements (ML)	Water Deliveries 2016/17 (ML)
Irrigation	44,086	1200	42,886	20,299
Urban	7712	7491	221	1160
Industrial	0	0	0	98
SunWater	129,426	17,671	111,755	10,320
Total	**181,224**	**26,362**	**154,862**	**31,877**

1. Bulk water only. Includes Burnett Water Pty Ltd (Paradise Dam).

The historical medium priority announced allocations for the Burnett and Kolan sub-schemes are shown in Figure 2 and Figure 3, respectively.

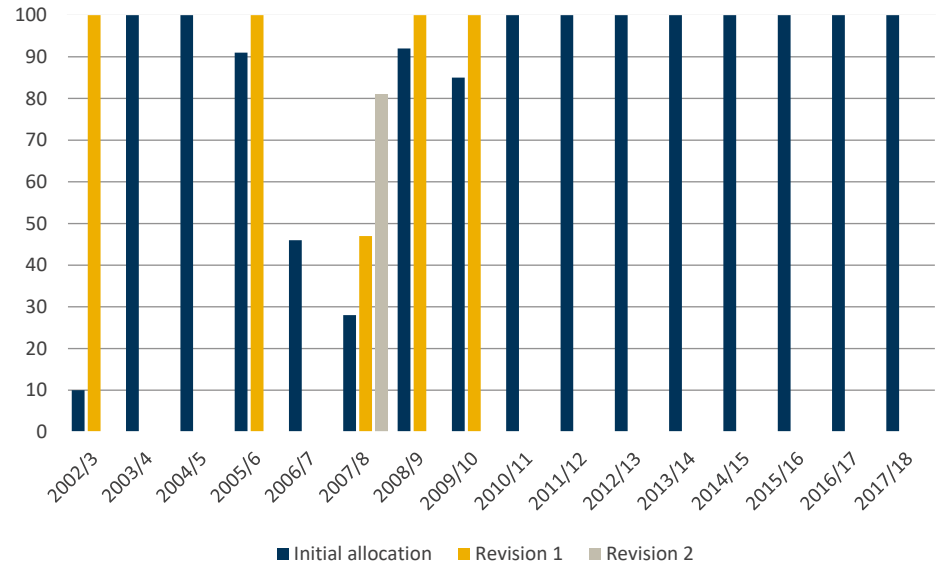
Figure 2: Burnett Sub-scheme Medium Priority Announced Allocations[1]



1. Data as at 28 February 2018.

[1] Includes distribution customers.

Figure 3: Kolan Sub-scheme Medium Priority Announced Allocations[1]



1. Data as at 28 February 2018.

The 2018/19 charges and cost per megalitre are shown in Table 2. For the full suite of charges that apply, refer to SunWater's website.

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

Product		2018/19 ($/ML)	Cost ($/ML)[2,3,4,5]	Subsidy ($/ML)
Bulk water customers				
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	12.74	8.11	N/A
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	1.28	2.71	1.43
Bulk water customers who are also customers of a distribution system				
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	7.36	8.11	0.75
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	1.28	2.71	1.43

1. This table includes bulk water charges only. For distribution charges (Part C and Part D) please refer to the Distribution 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. The notional High Priority Allocation Charge cost per megalitre is $30.36.
4. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 62 per cent (previously 82 per cent).
5. Excludes Burnett Water Pty Ltd (Paradise Dam).

2.2 Service targets

SunWater and customers have agreed Water Supply Arrangements and Service Targets for the Bundaberg 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	72 hours	0
Maximum number of interruptions[1]	Planned or unplanned interruptions per water year	10	0

1. This is the total number of bulk 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 bulk water services to our customers in Bundaberg.

Table 4: Key infrastructure

Asset	Description	Capacity
Fred Haigh Dam	Earth and rock fill dam. Classified as a referable dam under the *Water Supply (Safety and Reliability) Act 2008*.	562,000 ML
Ben Anderson Barrage	Tidal barrage with a four-gated vertical slot fishway	30,300 ML
Ned Churchward Weir	Fully automated fish lock. Includes a small anabranch weir built to prevent the river from deepening at the anabranch	29,500 ML
Bucca Weir	Roller compacted concrete	11,600 ML
Kolan Barrage	Tidal barrage with a vertical slot fishway	4020 ML
Monduran pump station	3 pumps	1100 ML/day

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 Bundaberg 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 Bundaberg Bulk Water Service Contract in 2018/19.

In 2018/19, SunWater plans to increase routine expenditure and decrease non-routine expenditure for the Bundaberg 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]

Bundaberg Service Contract	2014/15 Actual $'000	2015/16 Actual $'000	2016/17 Actual $'000	2017/18 Estimate $'000	2018/19 Forecast $'000
Revenue					
Irrigation	439.9	449.4	470.1	418.8	486.6
Community Service Obligation	-	-	-	-	-
Industrial	-	-	-	-	-
Urban[2]	617.6	626.4	637.3	649.1	665.4
Revenue transfers[3]	1100.7	1133.7	1213.7	2934.2	3007.2
Drainage	-	-	-	-	-
Other	1387.5	58.2	6.9	7.0	7.0
Insurance proceeds – flood	-	-	-	-	-
Revenue Total	**3545.6**	**2267.8**	**2328.0**	**4009.1**	**4166.2**[4]
Less – Routine expenditure	(1229.2)	(1147.4)	(1393.2)	(1499.4)	(1997.8)
Less – Non-routine expenditure					
Annuity funded	(3118.5)	(5782.5)	(1046.4)	(2178.8)	(1469.0)
Non annuity funded[5]	(7.8)	(11.0)	(4.5)	-	-
Surplus (deficit)	**(809.9)**	**(4673.2)**	**(116.2)**	**331.0**	**699.3**

1. Totals may not add due to rounding.
2. Forecast revenues for urban 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. Revenue includes an annuity contribution of $649,728. Refer to Table 8.
5. This is expenditure which has not been funded by irrigation customers.

As part of our commitment to transparency, Figure 4 and Figure 5 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 4: Breakdown of total service contract costs – 2018/19 forecast

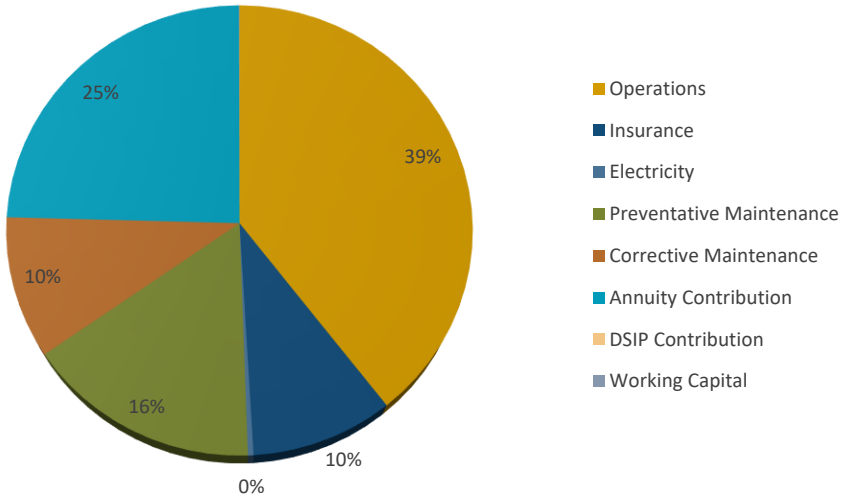
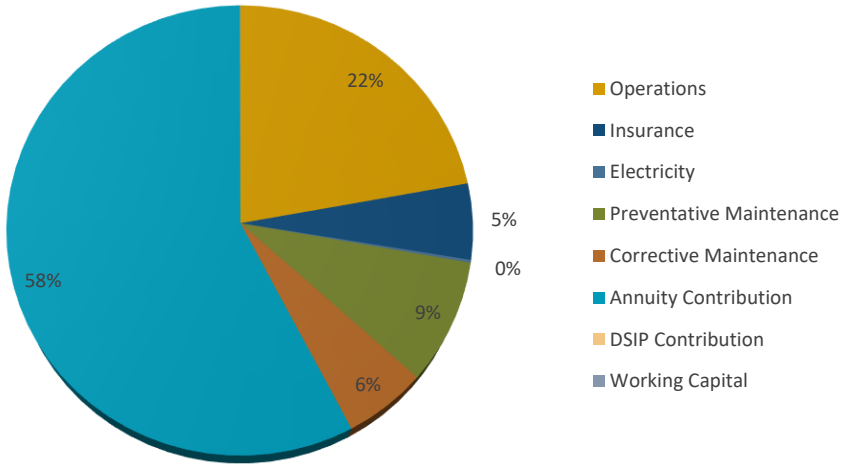


Figure 5: Breakdown of total service contract costs – 2019/20 to 2023/24 forecasts



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 Bundaberg 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 1.69 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]

Bundaberg 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	11.3	12.3	(1.0)	8.6	12.6	10.0	12.9	9.9	9.9	10.2	10.5	10.3
Insurance	262.1	104.9	157.2	262.1	107.5	254.2	110.2	260.1	266.0	272.2	278.4	284.8
Operations	659.1	649.8	9.3	755.0	666.0	1045.5	682.7	1050.5	1078.2	1106.6	1135.8	1165.8
Operations Total	**932.5**	**766.9**	**165.6**	**1025.7**	**786.1**	**1309.7**	**805.8**	**1320.4**	**1354.1**	**1389.0**	**1424.7**	**1460.9**
Preventative maintenance	209.3	346.7	(137.4)	272.7	355.3	420.2	364.2	421.5	432.8	444.4	456.3	468.6
Corrective maintenance	251.4	140.4	111.0	201.0	143.9	267.9	147.5	269.3	276.4	283.7	291.2	298.9
Routine Total	**1393.2**	**1254.0**	**139.2**	**1499.4**	**1285.4**	**1997.8**	**1317.5**	**2011.2**	**2063.3**	**2117.1**	**2172.2**	**2228.4**

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

Bundaberg Bulk Water Service Contract's total operations budget in 2018/19 is 62.54 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by insurance costs and overheads, which include 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***.

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.

4.2 Preventative maintenance

Preventative maintenance underpins the ongoing operational performance and service capacity of Bundaberg 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. Bundaberg Bulk Water Service Contract's preventative maintenance for 2018/19 is budgeted to be 15.37 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by overheads. 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.

Bundaberg Bulk Water Service Contract's corrective maintenance for 2018/19 is budgeted to be 81.58 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by overheads.

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).

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]

Bundaberg 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	41.0	-	41.0	8.8	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	329.7	-	329.7	5.0	-	87.7	-	-	-	-	-	-
Renewals	675.8	359.3	316.4	2164.9	311.8	1381.3	349.0	1979.6	820.2	702.4	668.1	768.9
Non-routine total	**1046.4**	**359.3**	**687.1**	**2178.8**	**311.8**	**1469.0**	**349.0**	**1979.6**	**820.2**	**702.4**	**668.1**	**768.9**
Non annuity funded												
Other	**4.5**			**-**		**-**		**-**	**-**	**-**	**-**	**360.0**

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 numerous flood events since 2010/11 (approximately $15 million). SunWater has not received insurance proceeds for these events, which may impact the annuity balances going forward.

SunWater proposes an increase in the opening annuity balance in 2020/21 of $135,000 to exclude the costs associated with an error made in the placement of concrete during repairs to Ben Anderson Barrage.

Table 8: Annuity balance[1]

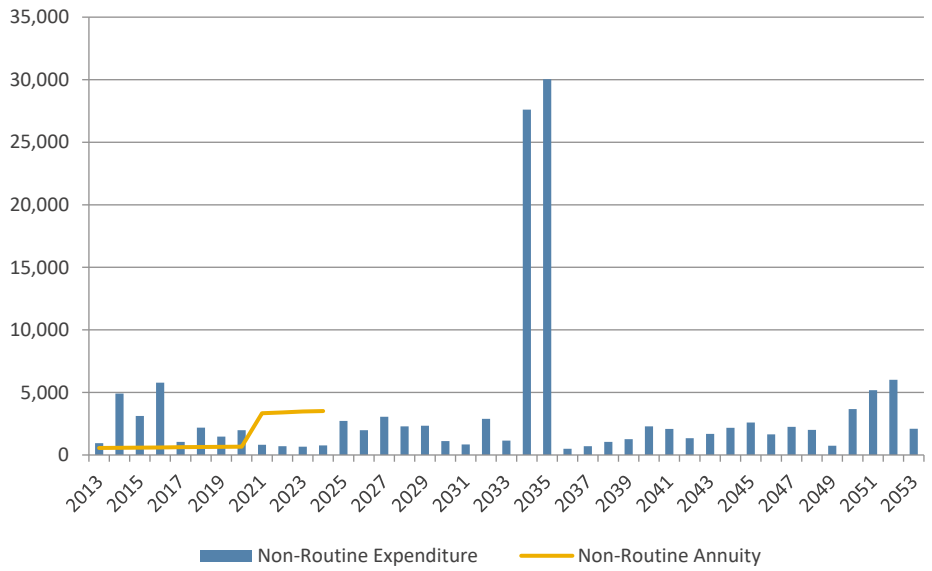
Bundaberg Service Contract	2016/17 Actual $'000	2017/18 Estimate $'000	2018/19 Forecast $'000	2019/20 Forecast $'000	2020/21 Forecast $'000	2021/22 Forecast $'000	2022/23 Forecast $'000	2023/24 Forecast $'000
Annuity								
Opening balance[2]	(8501.3)	(9566.1)	(11,827.5)	(13,532.6)	(15,748.9)[3]	(14,143.3)	(12,261.7)	(10,163.0)
Spend	(1046.4)	(2178.8)	(1469.0)	(1979.6)	(820.2)	(702.4)	(668.1)	(768.9)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[4]	618.4	633.9	649.7	666.0	3337.1	3402.5	3476.3	3511.6
Interest/financing costs	(636.7)	(716.5)	(885.9)	(1013.6)	(911.4)	(818.4)	(709.6)	(588.1)
SunWater – Closing Balance	**(9566.1)**	**(11,827.5)**	**(13,532.6)**	**(15,859.9)**	**(14,143.3)**	**(12,261.7)**	**(10,163.0)**	**(8008.4)**
QCA – Closing Balance	**(1183.4)**	**(950.0)**	**(720.5)**					
Difference	(8382.7)	(10,877.5)	(12,812.2)					

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 opening balance in 2020/21 does not yet incorporate the proposed adjustment to the annuity balance relating to the placement of concrete during repairs to Ben Anderson Barrage.
4. 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 6 below.

Figure 6: 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.

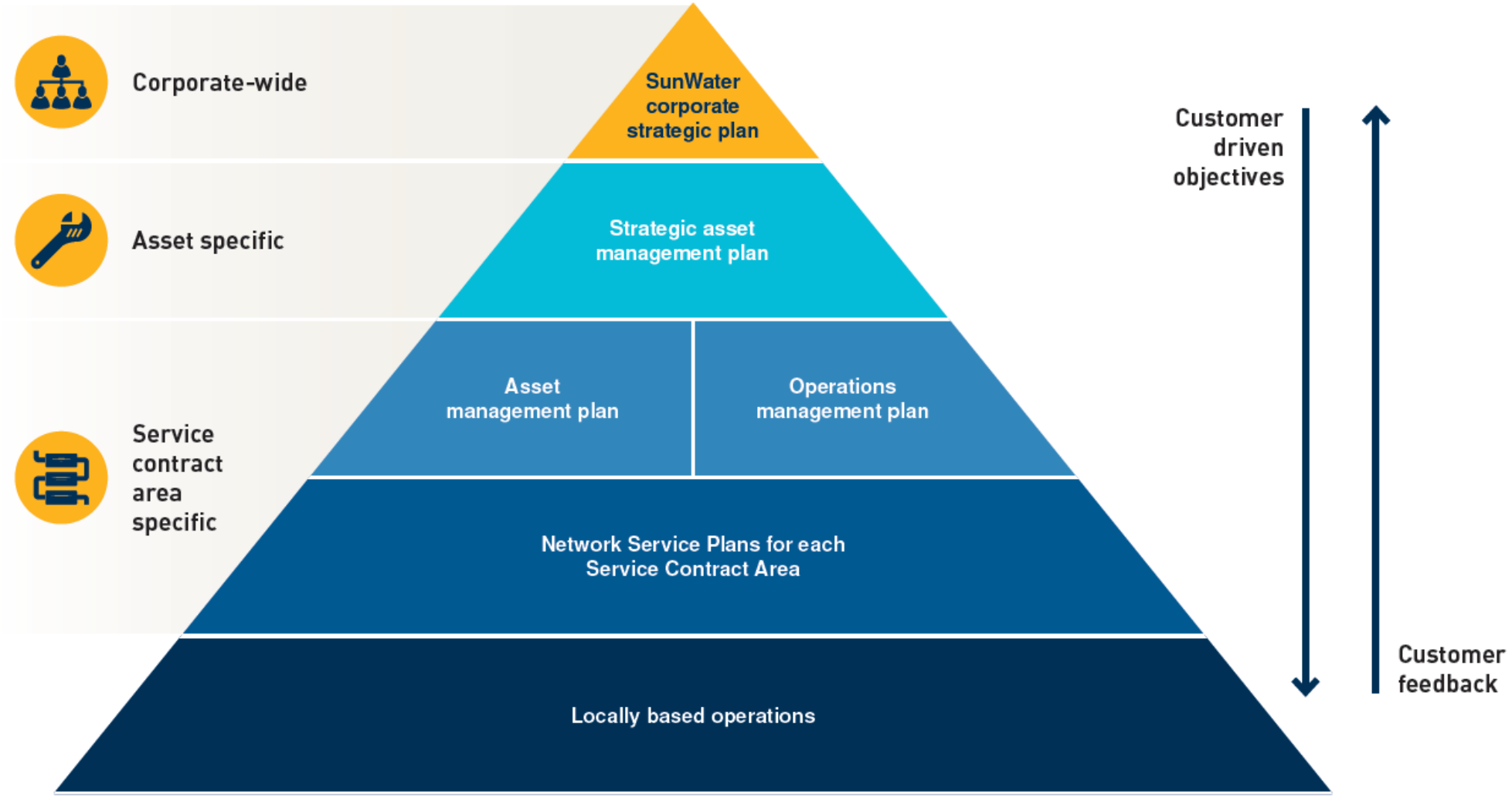
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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 7: SunWater's asset management framework



Appendix 2: Total expenditure by expense type

Table 9: Expenditure for activity by type[1]

Bundaberg 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	229.1	177.7	51.4	157.0	183.4	(26.4)	178.8	189.2	(10.4)	216.2	194.0	212.1	198.8	217.5	223.9	230.4	237.1	244.0
Contractors	53.6	30.9	22.7	10.5	31.8	(21.3)	12.0	32.4	(20.4)	10.0	33.2	12.0	34.0	12.2	12.5	12.8	13.2	13.5
Materials	1.6	12.9	(11.2)	8.1	13.2	(5.1)	3.0	13.6	(10.6)	2.0	13.9	5.0	14.3	5.1	5.2	5.3	5.5	5.6
Electricity	5.1	10.6	(5.5)	8.3	11.5	(3.2)	11.3	12.3	(1.0)	8.6	12.6	10.0	12.9	9.9	9.9	10.2	10.5	10.3
Insurance	232.8	101.4	131.5	202.9	103.1	99.7	262.1	104.9	157.2	262.1	107.5	254.2	110.2	260.1	266.0	272.2	278.4	284.8
Other	127.5	55.6	71.8	81.2	56.6	24.6	100.3	57.6	42.7	85.9	59.0	96.0	60.5	97.9	100.1	102.4	104.8	107.2
Local area support costs	122.5	-	122.5	120.3	-	120.3	150.4	-	150.4	168.7	-	270.5	-	273.9	281.0	288.4	295.9	303.6
Corporate support costs	78.9	185.8	(107.0)	54.1	182.8	(128.7)	67.7	186.9	(119.2)	109.4	191.5	137.8	196.3	129.9	133.3	136.8	140.4	144.0
Indirect costs	144.6	189.3	(44.6)	161.0	180.6	(19.7)	147.0	170.2	(23.2)	162.9	174.4	312.1	178.8	313.9	322.1	330.5	339.1	347.9
Preventative maintenance																		
Labour	59.1	103.9	(44.8)	74.2	107.2	(33.0)	66.1	110.6	(44.5)	100.9	113.4	113.1	116.2	116.0	119.4	122.8	126.4	130.1
Contractors	2.7	5.4	(2.7)	19.2	5.6	13.6	19.2	5.7	13.5	10.0	5.8	15.0	5.9	15.3	15.7	16.1	16.4	16.8
Materials	3.9	29.6	(25.7)	5.6	30.3	(24.7)	4.7	30.5	(25.8)	5.0	31.3	5.0	32.1	5.1	5.2	5.3	5.5	5.6
Other	4.0	3.7	0.3	4.2	3.9	0.3	3.4	3.9	(0.5)	3.0	4.0	2.0	4.1	2.0	2.1	2.1	2.2	2.2
Local area support costs	42.0	-	42.0	63.8	-	63.8	56.7	-	56.7	78.7	-	144.7	-	146.6	150.4	154.3	158.3	162.5
Corporate support costs	20.7	103.6	(83.0)	22.2	101.7	(79.5)	19.8	104.0	(84.1)	43.6	106.6	73.5	109.2	69.3	71.1	72.9	74.8	76.8
Indirect costs	44.1	101.9	(57.8)	64.9	96.9	(32.0)	39.2	92.0	(52.7)	31.5	94.3	66.9	96.6	67.2	69.0	70.8	72.6	74.5
Corrective maintenance																		
Labour	12.2	28.4	(16.1)	20.7	29.3	(8.5)	64.7	30.2	34.5	64.0	31.0	63.9	31.7	65.5	67.4	69.4	71.4	73.5
Contractors	13.8	16.2	(2.4)	9.1	16.7	(7.6)	43.8	17.0	26.8	25.0	17.4	25.0	17.8	25.5	26.1	26.8	27.4	28.1
Materials	7.1	26.3	(19.1)	12.0	27.0	(15.0)	25.6	27.4	(1.8)	10.0	28.1	15.0	28.8	15.3	15.6	16.0	16.4	16.7
Other	0.2	9.7	(9.5)	3.8	10.0	(6.2)	4.5	10.2	(5.7)	3.0	10.4	3.0	10.7	3.1	3.1	3.2	3.3	3.3
Local area support costs	8.8	-	8.8	17.6	-	17.6	53.3	-	53.3	50.0	-	81.8	-	82.8	84.9	87.2	89.4	91.8
Corporate support costs	5.4	30.3	(24.9)	7.0	29.9	(22.9)	21.6	30.5	(8.9)	29.0	31.3	41.5	32.1	39.1	40.2	41.2	42.3	43.4
Indirect costs	9.4	27.8	(18.4)	19.8	26.5	(6.7)	37.9	25.1	12.8	20.0	25.7	37.8	26.4	38.0	39.0	40.0	41.0	42.1
Routine total	1229.2	1251.0	(21.8)	1147.4	1248.0	(100.6)	1393.2	1254.0	139.2	1499.4	1285.4	1997.8	1317.5	2011.2	2063.3	2117.1	2172.2	2228.4
Non-routine spend																		
Labour	388.7	9.0	379.7	352.3	103.8	248.6	158.3	69.4	88.9	333.9	45.3	143.2	50.7	250.2	77.8	79.5	42.4	78.3
Contractors	1837.3	4.6	1832.6	4388.5	79.0	4309.5	527.3	53.2	474.1	1240.9	33.8	803.9	37.8	1171.1	562.2	416.9	526.1	464.7
Materials	4.5	5.4	(1.0)	26.7	93.5	(66.8)	18.2	59.9	(41.7)	9.8	40.1	138.6	44.9	35.2	12.2	24.8	16.7	47.1
Other	74.5	2.8	71.7	72.6	52.2	20.3	29.0	30.5	(1.6)	24.5	21.3	54.5	23.9	41.1	13.1	23.6	1.0	25.7
Local area support costs	305.7	122.5	183.3	277.6	114.8	162.8	141.3	81.5	59.8	260.5	91.1	151.1	102.0	137.8	44.4	47.2	24.1	44.9
Corporate support costs	223.0	-	223.0	314.8	-	314.8	74.7	-	74.7	204.9	-	93.1	-	207.7	64.6	66.0	35.2	65.0
Indirect costs	284.8	108.1	176.7	349.9	98.0	251.9	97.7	64.8	32.9	104.3	80.2	84.7	89.8	136.5	45.8	44.4	22.6	43.3
Non-routine total	3118.5	252.4	2866.0	5782.5	541.4	5241.1	1046.4	359.3	687.1	2178.8	311.8	1469.0	349.0	1979.6	820.2	702.4	668.1	768.9
Total spend	**4347.7**	**1503.4**	**2844.2**	**6929.9**	**1789.4**	**5140.5**	**2439.7**	**1613.4**	**826.3**	**3678.1**	**1597.2**	**3466.8**	**1666.6**	**3990.8**	**2883.5**	**2819.5**	**2840.3**	**2997.2**

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 Bundaberg Bulk Water Service Contract is allocated 2.360 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 Bundaberg Bulk Water Service Contract is allocated 2.365 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.

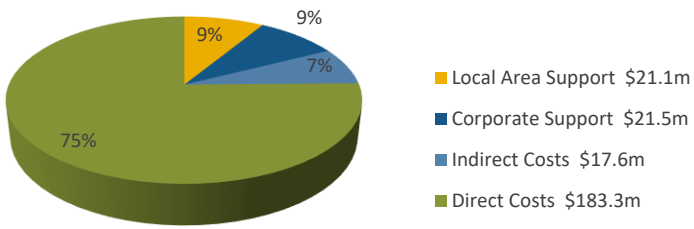
Corporate support costs

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 Bundaberg Bulk Water Service Contract is allocated 1.176 per cent of the forecast total corporate support costs.

Figure 8: Total SunWater cost pools – 2018/19 forecast



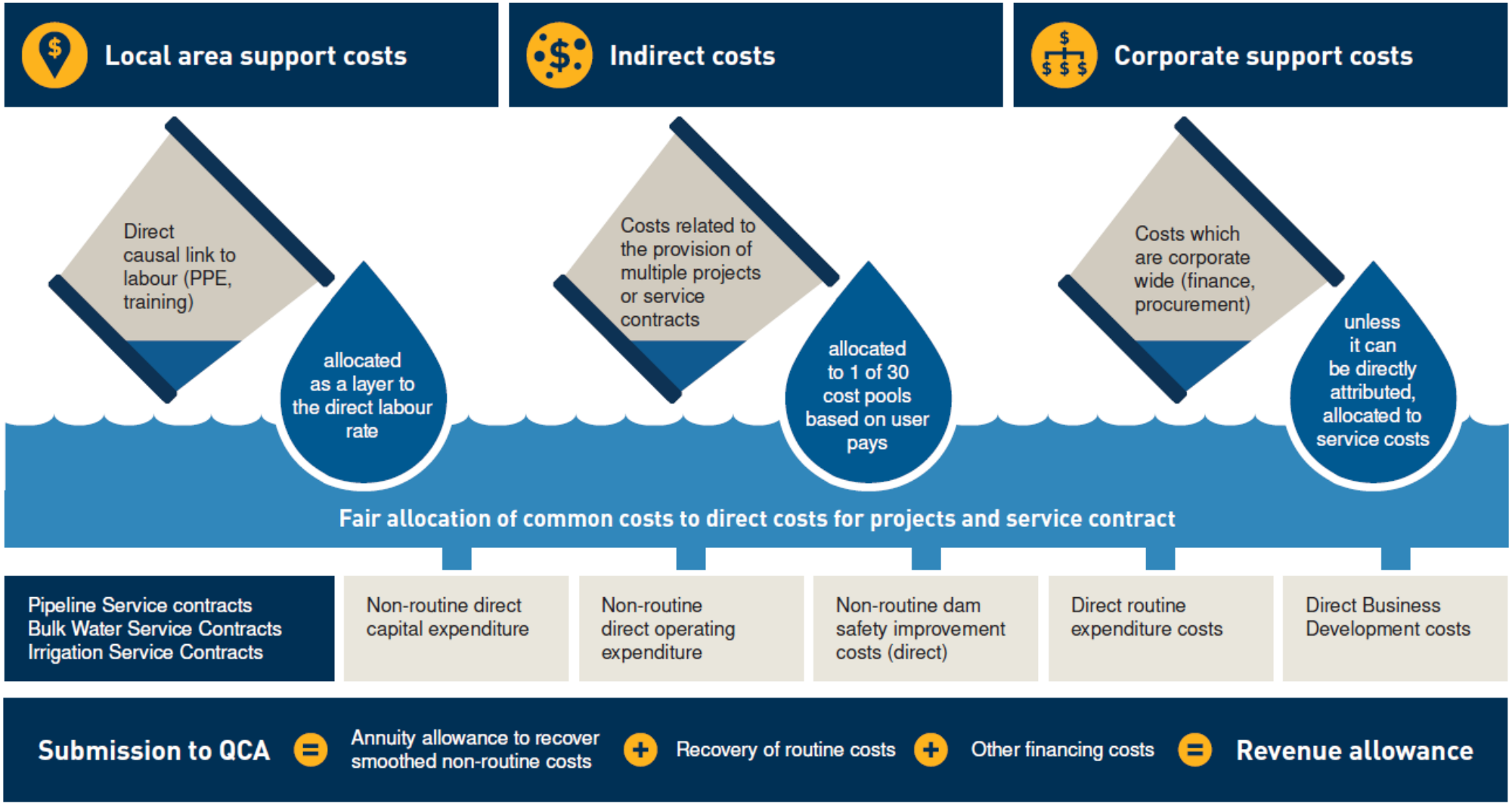
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater's methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and 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 9 below illustrates the allocation of costs associated with providing services.

Figure 9: 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 releasing water to meet customer usage, and regulating and monitoring weir and barrage water levels
- 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 Bundaberg 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 fishways.
- Servicing — planned maintenance activities carried out routinely on physical assets including valves, gauging stations, cranes, 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:

- Storages (headworks, weirs and barrages):
  - repairing control gates, valves and concrete structures
  - repairing walls, embankments and spillways.
- Service Contract roads:
  - repairing pot holes and grading roads
  - repairing, replacing, and painting guide posts and signs.
- Meters:
  - repairing bulk water meters and customer meters.

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	Ben Anderson Barrage – Build and install shutters	The existing strategy for shutter maintenance is to refurbish 10 every year. Due to high water levels and floods during the past 8-10 years, the refurbishment program is behind schedule. An options study identified it was more cost effective to build 10 new shutters every year for the next 10 years then start the maintenance strategy again.	383
	Fred Haigh Dam – 20 year dam safety review	The Queensland Dam Safety Management Guidelines require SunWater to undertake a safety review every 20 years. This review reverse engineers the dam to identify any defects compared to current design standards, after which a comprehensive risk assessment (CRA) occurs.	210
	Fred Haigh Dam – Refurbish gantry crane	The intake tower gantry crane has been in need of major refurbishment work for a few years. It has been kept operational until now but this is no longer viable. It is needed to install the bulkhead gate and remove trash screens.	210
	Fred Haigh Dam – Refurbish concrete wave wall horizontal section	Reinforcement has pushed through the concrete on the horizontal section of the wave wall. The wall is weakened in this section and is a traffic hazard (tyre puncture) so it will be reinstated back to original specifications.	62
	Meter replacements	Replace meter program (10 per year) for Burnett River. This is an allowance for customer meter replacements. If meters are not replaced, the funds will remain in the annuity.	52
	Fred Haigh Dam – Refurbish spillway concrete chute	During the 2016 inspection, drummy concrete was found beneath the spillway. It needs to be repaired to prevent the concrete from further damage during flood events. The full extent will not be known until a ground penetrating radar survey or similar is done.	66
	Other works	There are 16 other non-routine projects for 2018/19.	485
	2018/19 Total		**1468**

Year	Project Title	Project Scope	Budget ($'000)
2019/20	Ben Anderson Barrage – Build and install shutters	The existing strategy for shutter maintenance is to refurbish 10 every year. Due to high water levels and floods during the past 8-10 years, the refurbishment program is behind schedule. An options study identified it was more cost effective to build 10 new shutters every year for the next 10 years then start the maintenance strategy again.	316
	Fred Haigh Dam – CRA review	The CRA for Fred Haigh Dam is due for review. The CRA will identify all risks associated with Fred Haigh Dam a year after the 20 year dam safety review reverse engineers the dam to identify any defects when compared to modern design standards.	160
	Ned Churchward Weir – Replace trash racks x8	The intake trash racks at the weir are badly corroded to the extent that they cannot be refurbished. All eight will be replaced in 2019/20.	283
	Ben Anderson Barrage – Shutter retention options study	The shutters at the barrage cost more per annum to maintain than the value of the water they store. All water supply commitments can still be met without them; however, there are financial and social implications if they are removed (eg higher pumping costs and loss or reduction in water ski amenities).	135
	Ben Anderson Barrage – Fishway baffle support refurbishment	The mild steel painted fishway baffle supports are badly corroded. They need to be replaced to make sure the fishway baffles remain upright or fish passage could be compromised. Several baffles were replaced in or around 2012/13 with stainless steel as that was the most cost-effective method.	78
	Other works	There are 29 other non-routine projects for 2019/20.	1008
	2019/20 Total		**1980**
2020/21	Ben Anderson Barrage – Build and install shutters	The existing strategy for shutter maintenance is to refurbish 10 every year. Due to high water levels and floods during the past 8-10 years, the refurbishment program is behind schedule. An options study identified it was more cost effective to build 10 new shutters every year for the next 10 years then start the maintenance strategy again.	330
	Ned Churchward Weir – Concrete sill refurbishment	The spillway end sill at Ned Churchward Weir has been eroded away during spill events to the extent that the section of reinforcement is exposed. The concrete sill needs to be reinstated to prevent the reo from corroding and expanding, which will cause more concrete damage.	75

Year	Project Title	Project Scope	Budget ($'000)
	Ben Anderson Barrage – Control building refurbishment	The eaves, soffits and other sections of the control building are either rotting away or are termite damaged. They need to be replaced.	47
	Monduran pump station – Refurbish delivery pipe externally	The section of pipe between the dam and pump station is showing signs of corrosion and needs to be repainted.	61
	Meter replacements	This is an allowance to replace failed customer meters on the Burnett River. If meters have not failed, the funds will remain in the annuity.	53
	Other works	There are 9 other non-routine projects for 2020/21.	254
	2020/21 Total		**820**
2021/22	Ben Anderson Barrage – Build and install shutters	The existing strategy for shutter maintenance is to refurbish 10 every year. Due to high water levels and floods during the past 8-10 years, the refurbishment program is behind schedule. An options study identified it was more cost effective to build 10 new shutters every year for the next 10 years then start the maintenance strategy again.	343
	Fred Haigh Dam – Comprehensive inspection	The Queensland Dam Safety Management Guidelines require SunWater to undertake a comprehensive dam safety inspection every 5 years. The inspection identifies any defects and allows SunWater to assess their risks and prioritise their scheduled work in accordance with the asset planning methodology.	79
	Meter replacements	This is an allowance to replace failed customer meters on the Burnett River. If meters have not failed, the funds will remain in the annuity.	54
	Ben Anderson Barrage – Upstream rail refurbishment	Sections of the upstream rail are becoming heavily pitted to the extent that the rail should be replaced. This will ensure safe operation of the gantry crane when it is required to lift the shutters back into place.	54
	Fred Haigh Dam – Inlet tower and outlet building cable replacements	The main cabling powering the inlet tower and outlet building is coming towards the end of its life. If a detailed condition assessment shows it should be replaced, this project will be actioned to do that. Otherwise the funds will remain in the annuity.	68
	Other works	There are 4 other non-routine projects for 2021/22.	104
	2021/22 Total		**702**

Year	Project Title	Project Scope	Budget ($'000)
2022/23	Ben Anderson Barrage – Build and install shutters	The existing strategy for shutter maintenance is to refurbish 10 every year. Due to high water levels and floods during the past 8-10 years, the refurbishment program is behind schedule. An options study identified it was more cost effective to build 10 new shutters every year for the next 10 years then start the maintenance strategy again.	357
	Ben Anderson Barrage – Upstream rail refurbishment	Sections of the upstream rail are becoming heavily pitted to the extent that the rail should be replaced. This will ensure safe operation of the gantry crane when it is required to lift the shutters back into place. This is a continuation of the 2021/22 project.	55
	Ned Churchward Weir – Comprehensive inspection	SunWater conducts comprehensive inspections on all weirs every five years to maintain current knowledge of asset condition and risks. This allows better asset maintenance planning to be done.	60
	Ben Anderson Barrage – Comprehensive inspection	SunWater conducts comprehensive inspections on all weirs every five years to maintain current knowledge of asset condition and risks. This allows better asset maintenance planning to be done.	54
	Meter replacements	This is an allowance to replace failed customer meters on the Burnett River. If meters have not failed, the funds will remain in the annuity.	56
	Other works	There are 3 other non-routine projects for 2022/23.	86
	2022/23 Total		**668**
2023/24	Ben Anderson Barrage – Build and install shutters	The existing strategy for shutter maintenance is to refurbish 10 every year. Due to high water levels and floods during the past 8-10 years, the refurbishment program is behind schedule. An options study identified it was more cost effective to build 10 new shutters every year for the next 10 years then start the maintenance strategy again.	372
	Ben Anderson Barrage – Upstream rail refurbishment	Sections of the upstream rail are becoming heavily pitted to the extent that the rail should be replaced. This will ensure safe operation of the gantry crane when it is required to lift the shutters back into place. This is a continuation of the 2021/22 project.	57
	Meter replacements	This is an allowance to replace failed customer meters on the Burnett River. If meters have not failed, the funds will remain in the annuity.	57

Year	Project Title	Project Scope	Budget ($'000)
	Ned Churchward Weir – Replace fishway submersible pump	The small submersible pump used to fill the fish lock chambers is almost at the end of its life. If the comprehensive inspection in 2022/23 determines this can be pushed out further, it will be.	38
	Ned Churchward Weir – Replace stand pipe piezometers	The stand pipe piezometers at the weir are slowly filling with sand and silt as they are inundated by floodwaters. This project will determine if they are still needed, and whether a like for like replacement is the best option, taking into account more recent technology.	33
	Other works	There are 17 other non-routine projects for 2023/24.	212
	2023/24 Total		**769**

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

Bundaberg 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 Bundaberg Bulk Water Service Contract in August 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. This data has been adjusted to exclude water deliveries to Burnett Water Pty Ltd.
- 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[1] – Restatement of Table 2 from the 2019 Network Service Plan

Product		2018/19 ($/ML)	Cost ($/ML)[2,3,4,5]	Subsidy ($/ML)
Bulk water customers				
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	12.74	7.97	N/A
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	1.28	1.75	0.47
Bulk water customers who are also customers of a distribution system				
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	7.36	7.97	0.61
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	1.28	1.75	0.47

1. This table includes bulk water charges only. For distribution charges (Part C and Part D) please refer to the Addendum to the Distribution 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. The notional High Priority Allocation Charge cost per megalitre is $31.59.
4. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 62 per cent (previously 82 per cent at the time of the 2012 review).
5. Excludes Burnett Water (Paradise Dam).

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

Bundaberg 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 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	11.3	12.3	(1.0)	12.2	12.6	10.0	12.9	9.2	9.0	9.3	10.2	10.1
Insurance	262.1	104.9	157.2	241.4	107.5	254.2	110.2	259.4	265.4	271.5	277.7	284.1
Operations	659.1	649.8	9.3	754.4	666.0	1045.5	682.7	1048.6	1075.6	1103.3	1131.2	1159.8
Operations Total	**932.5**	**766.9**	**165.6**	**1008.1**	**786.1**	**1309.7**	**805.8**	**1317.3**	**1350.0**	**1384.2**	**1419.1**	**1454.0**
Preventative maintenance	209.3	346.7	(137.4)	169.0	355.3	420.2	364.2	420.8	431.8	443.1	454.4	466.0
Corrective maintenance	251.4	140.4	111.0	151.0	143.9	267.9	147.5	268.8	275.7	282.9	290.0	297.3
Routine Total	**1393.2**	**1254.0**	**139.2**	**1328.0**	**1285.4**	**1997.8**	**1317.5**	**2006.9**	**2057.6**	**2110.1**	**2163.5**	**2217.3**

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]	127.8	786.0	1396.5	27.5	-
DIP Contribution[2]	-	15.9	60.5	90.8	93.6
DIP Contribution - % of Total Costs	0.0%	0.4%	1.3%	1.9%	2.0%

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]	(8501.3)	(9566.1)	(10,584.1)	(12,196.2)	(14,314.0)[2]	(12,705.8)	(10,820.6)	(8717.3)
Spend	(1046.4)	(935.4)	(1469.0)	(1979.6)	(820.2)	(702.4)	(668.1)	(768.9)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution[3]	618.4	633.9	649.7	664.3	3265.2	3330.5	3404.1	3439.6
Interest/financing costs	(636.7)	(716.5)	(792.8)	(913.5)	(836.9)	(742.9)	(632.7)	(509.7)
SunWater – Closing balance	**(9566.1)**	**(10,584.1)**	**(12,196.2)**	**(14,424.9)**	**(12,705.8)**	**(10,820.6)**	**(8717.3)**	**(6556.3)**
QCA – Closing balance	**(1183.4)**	**(950.0)**	**(720.5)**					
Difference	(8382.7)	(9634.1)	(11,475.7)					

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 opening balance in 2020/21 does not yet incorporate the proposed adjustment to the annuity balance relating to the placement of concrete during repairs at Ben Anderson Barrage.
3. The annuity contribution is included in the prices paid by customers. It was set by the QCA for 2012/13 to 2016/17 and is rolled forward with the Consumer Price Index (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	(22)
Annuity income difference	(2)
Interest difference	6
Alignment to previously reported data	15
Interest	114
Total	**111**

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	1997.8	2006.9	2057.6	2110.1	2163.5	2217.3
Non-routine costs (Annuity contribution)	649.7	664.3	3265.2	3330.5	3404.1	3439.6
Dam improvement program[1]	-	-	-	-	-	-
Working capital	1.8	1.8	-	-	-	-
Revenue offsets	(7.0)	(7.2)	(7.4)	(7.5)	(7.7)	(7.9)
Transfers (Distribution losses)	(405.9)	(410.0)	(925.5)	(945.5)	(967.4)	(981.8)
Total costs	**2236.4**	**2255.9**	**4390.0**	**4487.5**	**4592.5**	**4667.1**
Notional cost allocations						
Irrigation customers	1622.2	1635.8	3078.2	3146.9	3220.9	3274.2
Urban/Industrial customers	253.1	255.6	575.6	588.1	601.7	610.7
SunWater	361.2	364.4	736.1	752.4	769.9	782.2
Total costs	**2236.4**	**2255.9**	**4390.0**	**4487.5**	**4592.5**	**4667.1**

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

Table 7: Historical actual water usage[1]

Year	Usage (ML)
2002/03	65,050
2003/04	88,307
2004/05	125,414
2005/06	128,066
2006/07	103,561
2007/08	66,373
2008/09	68,182
2009/10	106,753
2010/11	36,862
2011/12	88,195
2012/13	95,029
2013/14	183,521
2014/15	112,538
2015/16	133,207
2016/17	162,397
15-year average	**104,230**

1. Excludes water deliveries to Burnett Water.