

2018/19 to 2023/24 Network Service Plan

# Bundaberg Distribution Service Contract

6 August 2018

Final

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### Disclaimer

This Network Service Plan (NSP) has been prepared by SunWater to provide indicative information to our customers for the purpose of consultation. It contains estimates and forecasts which are based upon a number of assumptions. The actual financial performance of the Service Contract to which this NSP relates, and the operations and activities actually undertaken by SunWater during the relevant periods, may vary materially from the information contained in this NSP. This NSP should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this NSP in making decisions about your circumstances. SunWater will not be responsible or liable for any loss (including consequential loss), claim or damage (including in tort) that is in any way connected with the use of this NSP or the information contained within it.

## Our plan for Bundaberg

We’re focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Bundaberg 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 continuing to replace customer meters on an as needs basis to ensure our customers have accurate water metering in place. Works will also begin on the replacement of High Voltage switchboards on an as needs basis.

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](mailto: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](http://www.sunwater.com.au)

### 2.1 Our customers

The majority of our 1107 customers 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 Bundaberg Regional Council.

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

**Table 1: Water entitlement and usage data<sup>1</sup>**

Customer Segment	Total Water Entitlements (ML)	High Priority Water Entitlements (ML)	Medium Priority Water Entitlements (ML)	Water Deliveries 2016/17 (ML)
Irrigation	155,224	60	155,164	107,501
Urban	1809	1717	92	2440
Industrial	386	103	283	98
SunWater (excluding distribution loss)	120	50	70	6
SunWater distribution loss	41,520	16,080	25,440	24,755
Other	46	0	46	17
<b>Total</b>	<b>199,105</b>	<b>18,010</b>	<b>181,095</b>	<b>134,817</b>

1. Distribution system only.

The 2018/19 charges and cost per megalitre are shown in Table 2. The Bundaberg Distribution Service Contract is not expected to fully recover irrigation’s share of costs. For the full suite of charges that apply, refer to SunWater’s website.

**Table 2: Irrigation charges for 2018/19<sup>1</sup>**

Product	Charge type	2018/19 (\$/ML)	Cost (\$/ML) <sup>2</sup>	Subsidy (\$/ML)
Medium Priority Allocation Charge – Channel Distribution	Channel Distribution – Part C (fixed charge based upon entitlement)	43.98	46.60	2.62
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	57.50	58.88	1.38

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.

### 2.2 Service targets

SunWater and customers have agreed Water Supply Arrangements and Service Targets for the Bundaberg 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	72 hours	0
Maximum number of interruptions <sup>1</sup>	Planned or unplanned interruptions per water year	10	8

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 Bundaberg. We also maintain a large network of channels and several smaller balancing storages/reservoirs.

**Table 4: Key infrastructure**

Asset	Description	Capacity
Isis Balancing Storage	Earth embankment across a watercourse. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	6160 ML

Asset	Description	Capacity
Woongarra Balancing Storage	Earthen embankment constructed across two small watercourses. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	1225 ML
Gooburrum Balancing Storage	Earth embankment across a shallow depression	1040 ML
Bullyard Creek Balancing Storage	Earth embankment	453 ML
Monduran pump station	3 pumps	1100 ML/day
Don Beattie pump station	3 pumps	648 ML/day
Bullyard Creek pump station	4 pumps	415 ML/day
Woongarra pump station	5 pumps	395 ML/day
Gooburrum pump station	2 pumps	300 ML/day
Quart Pot Creek pump station (two sections)	4 pumps (2 in each section)	250 ML/day 275 ML/day
Walker Street pump station	4 pumps	225 ML/day
Dinner Hill pump station	3 pumps	160 ML/day
Tirroan pump station	2 pumps	72 ML/day
North Gregory pump station	2 pumps	63 ML/day
Bucca pump station	2 pumps	60 ML/day
Mcllwraith pump station	2 pumps	60 ML/day
Abbotsford pump station	2 submersible pumps	23.7 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 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 to revenue for the Bundaberg Distribution Service Contract in 2018/19.

In 2018/19, SunWater plans to increase non-routine expenditure for the Bundaberg 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. There will be no material change to routine expenditure.

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*.

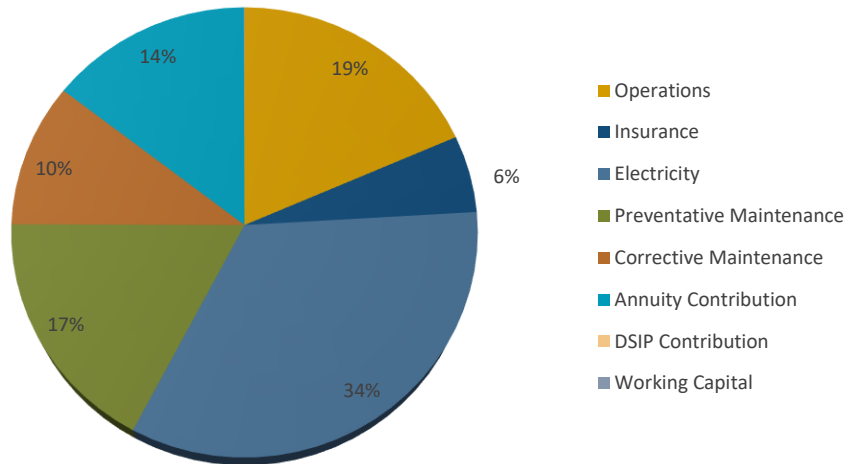
**Table 5: Service contract financial summary<sup>1</sup>**

<b>Bundaberg Service Contract</b>	<b>2014/15 Actual \$'000</b>	<b>2015/16 Actual \$'000</b>	<b>2016/17 Actual \$'000</b>	<b>2017/18 Estimate \$'000</b>	<b>2018/19 Forecast \$'000</b>
Revenue					
Irrigation	9854.7	12,019.2	13,880.5	11,285.5	11,870.5
Community Service Obligation	467.3	157.4	1.0	-	-
Industrial <sup>2</sup>	103.5	93.0	108.2	112.1	114.9
Urban <sup>2</sup>	609.0	628.2	641.0	612.4	627.7
Revenue transfers <sup>3</sup>	(1100.7)	(1133.7)	(1213.7)	(2934.2)	(3007.2)
Drainage	-	-	-	-	-
Other	576.3	185.2	160.5	4.0	4.0
Insurance proceeds – flood	-	-	-	-	-
<b>Revenue Total</b>	<b>10,509.9</b>	<b>11,949.3</b>	<b>13,577.6</b>	<b>9079.8</b>	<b>9609.9<sup>4</sup></b>
Less – Routine expenditure	(10,160.5)	(10,476.6)	(11,880.5)	(10,619.8)	(11,510.3)
Less – Non-routine expenditure					
Annuity funded	(960.0)	(1119.5)	(2656.9)	(1805.2)	(2247.6)
Non annuity funded <sup>5</sup>	(101.7)	(114.1)	(117.9)	-	-
<b>Surplus (deficit)</b>	<b>(712.2)</b>	<b>239.1</b>	<b>(1077.8)</b>	<b>(3345.2)</b>	<b>(4148.0)</b>

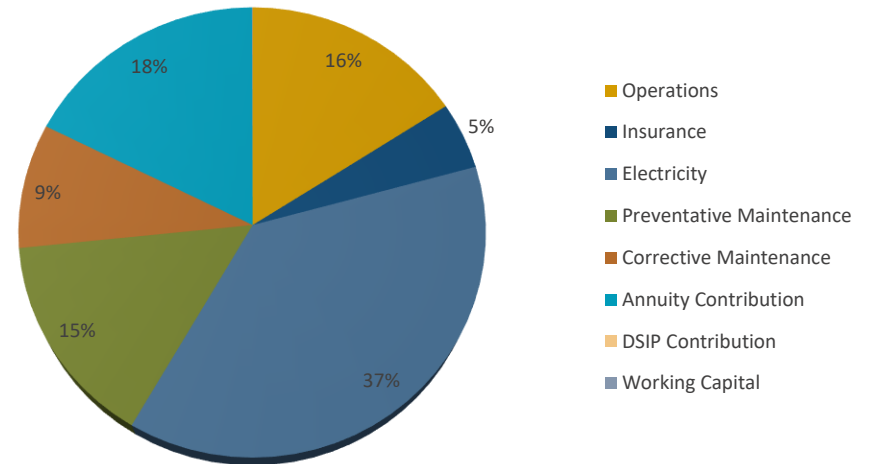
1. Totals may not add due to rounding.
2. Forecast revenues for industrial and urban customers are based on current contractual arrangements.
3. Revenue transfers represent the cost of bulk water supplies delivered through the distribution system(s). The revenue accrues to the distribution system before 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 \$1.95 million. Refer to Table 8.
5. This is expenditure which has not been funded by irrigation customers. An example of this in the Bundaberg Distribution Service Contract is customer funded meter replacements.

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 no material change to Bundaberg 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 1.77 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<sup>1,2</sup>**

Bundaberg Service Contract	2016/17			2017/18 <sup>3</sup>		2018/19 <sup>3</sup>		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	5728.9	3914.2	1814.7	4682.1	4012.1	4528.0	4112.4	6099.2	6068.7	6269.0	6432.0	6309.8
Insurance	766.9	576.1	190.8	766.9	590.5	747.7	605.3	764.9	782.5	800.5	818.9	837.7
Operations	2233.0	1947.1	285.9	2124.7	1995.8	2495.2	2045.7	2511.8	2578.9	2647.9	2718.6	2791.3
<b>Operations Total</b>	<b>8728.9</b>	<b>6437.5</b>	<b>2291.4</b>	<b>7573.7</b>	<b>6598.4</b>	<b>7770.9</b>	<b>6763.4</b>	<b>9375.9</b>	<b>9430.1</b>	<b>9717.3</b>	<b>9969.5</b>	<b>9938.9</b>
Preventative maintenance	2131.0	1833.8	297.1	1999.7	1879.7	2340.2	1926.7	2365.2	2426.4	2489.2	2553.6	2619.7
Corrective maintenance	1020.6	1059.9	(39.3)	1046.3	1086.4	1399.2	1113.6	1412.4	1449.3	1487.1	1526.0	1565.8
<b>Routine Total</b>	<b>11,880.5</b>	<b>9331.3</b>	<b>2549.2</b>	<b>10,619.8</b>	<b>9564.6</b>	<b>11,510.3</b>	<b>9803.7</b>	<b>13,153.5</b>	<b>13,305.8</b>	<b>13,693.7</b>	<b>14,049.1</b>	<b>14,124.4</b>

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%.



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## 4.1 Operations

Bundaberg Distribution Service Contract's total operations budget in 2018/19 is 14.90 per cent above the QCA's recommended costs (adjusted for inflation). SunWater has projected higher costs for each of sub-activities than what the QCA recommended. However, expenditure in these categories is broadly consistent with historical expenditure.

There are also new costs relating to the ongoing implementation of the Inspector-General Emergency Management (IGEM) Review recommendations. For further detail on what is included in operations expenditure, refer to **Appendix 3**.

### Electricity

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

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

### Insurance

Insurance is one of SunWater's largest expenditure items and these costs have increased significantly in recent years due to multiple flood events in Queensland and global insurable events impacting premiums. Although SunWater is subject to market forces in the pricing of insurance premiums, we have also been actively managing insurance premium costs by reviewing coverage levels and policy specifications including deductibles to ensure that our insurance coverage is appropriate and reflective of the risks faced by our business.

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

coverage. 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 Bundaberg 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. Bundaberg Distribution Service Contract's preventative maintenance for 2018/19 is budgeted to be 21.46 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by material costs (acrolein) and 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

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unexpected events, such as floods. These costs are categorised as non-routine corrective maintenance, which is discussed in the following section.

Bundaberg Distribution Service Contract's corrective maintenance for 2018/19 is budgeted to be 25.65 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). For a list of what this typically includes, refer to **Appendix 3**.

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## 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<sup>1</sup>**

Bundaberg Service Contract	2016/17			2017/18 <sup>2</sup>		2018/19 <sup>2</sup>		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
<b>Annuity funded</b>												
Operations	19.0	-	19.0	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	987.0	-	987.0	-	-	-	-	-	-	-	-	-
Renewals	1651.0	891.4	759.6	1805.2	1318.3	2247.6	1717.7	3150.0	2523.5	1893.2	2163.1	2976.5
<b>Non-routine total</b>	<b>2656.9</b>	<b>891.4</b>	<b>1765.5</b>	<b>1805.2</b>	<b>1318.3</b>	<b>2247.6</b>	<b>1717.7</b>	<b>3150.0</b>	<b>2523.5</b>	<b>1893.2</b>	<b>2163.1</b>	<b>2976.5</b>
<b>Non annuity funded</b>												
<b>Other</b>	<b>117.9</b>			-		-		-	-	-	-	-

1. Totals may not add due to rounding.

2. The QCA Forecast for 2017/18 and 2018/19 are based upon the modelling undertaken by the QCA as part of the 2012 irrigation pricing review.

## 6. Annuity balance

Annuities are managed by SunWater on behalf of each Service Contract. They allow for customer charges to reflect a constant amount necessary to recoup the costs of refurbishment/rehabilitation of the assets over a pre-determined period of time. The forecast annuity balances, and the impacts of budgeted non-routine spend, are shown in Table 8 below.

The QCA and SunWater closing balances will differ due to differences in the expenditure profile allowed by the QCA in 2012 and actual expenditure incurred by SunWater between 2012/13 and 2018/19. For example, renewals expenditure is greater than QCA recommended forecasts as a result of flood events in 2010/11 and 2012/13 (approximately \$4.5 million). SunWater has not received insurance proceeds for these events, which may impact the annuity balances going forward.

**Table 8: Annuity balance<sup>1</sup>**

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
<b>Annuity</b>								
Opening balance <sup>2</sup>	6883.1	6601.6	7197.2	7442.8	6325.5	6945.5	8467.2	10,138.5
Spend	(2656.9)	(1805.2)	(2247.6)	(3150.0)	(2523.5)	(1893.2)	(2163.1)	(2976.5)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	1859.9	1906.4	1954.1	2002.9	2777.4	3013.0	3344.4	3475.4
Interest/financing costs	515.5	494.5	539.1	557.5	366.0	401.9	490.0	586.7
<b>SunWater – Closing Balance</b>	<b>6601.6</b>	<b>7197.2</b>	<b>7442.8</b>	<b>6853.1</b>	<b>6945.5</b>	<b>8467.2</b>	<b>10,138.5</b>	<b>11,224.1</b>
<b>QCA – Closing Balance</b>	<b>8761.5</b>	<b>10,005.9</b>	<b>10,991.7</b>					
Difference	(2159.9)	(2808.6)	(3548.9)					

1. Totals may not add due to rounding.

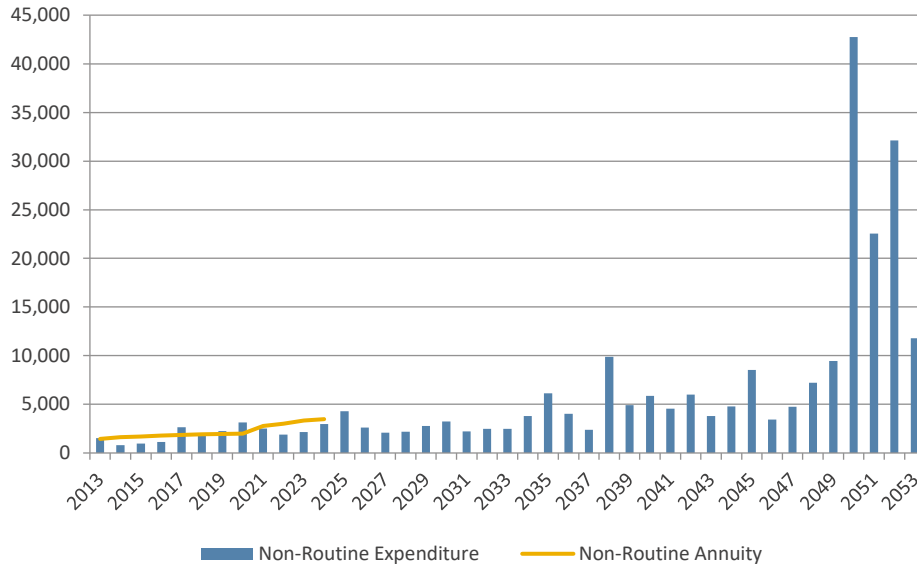
2. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. For example, flood repairs associated with an insurance claim that were still outstanding in 2012. These amounts have been carried 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.

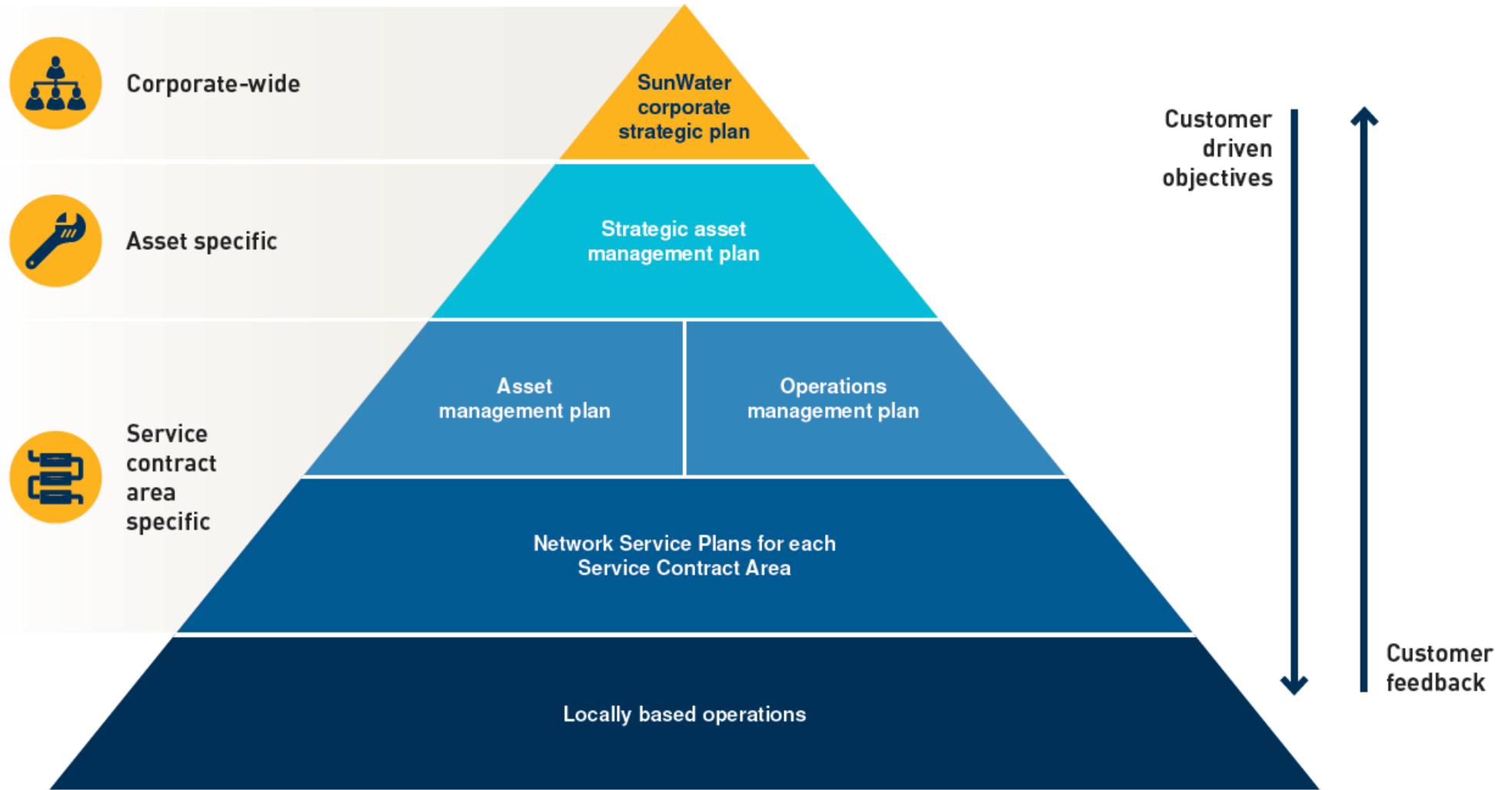
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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<sup>1</sup>

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
<b>Routine spend</b>																		
<b>Operations</b>																		
Labour	863.7	725.7	138.1	751.8	748.9	2.9	752.3	772.8	(20.6)	772.8	792.1	658.5	812.0	677.7	697.5	717.8	738.7	760.3
Contractors	39.9	0.5	39.4	12.9	0.6	12.4	45.7	0.6	45.1	10.3	0.6	25.0	0.6	25.6	26.2	26.8	27.5	28.2
Materials	9.9	0.2	9.7	11.9	0.3	11.6	7.4	0.2	7.2	10.0	0.2	10.0	0.2	10.2	10.5	10.7	11.0	11.2
Electricity	3356.4	3387.2	(30.8)	4343.9	3658.2	685.8	5728.9	3914.2	1814.7	4682.1	4012.1	4528.0	4112.4	6099.2	6068.7	6269.0	6432.0	6309.8
Insurance	793.8	556.9	236.9	719.9	566.5	153.5	766.9	576.1	190.8	766.9	590.5	747.7	605.3	764.9	782.5	800.5	818.9	837.7
Other	102.7	38.2	64.6	101.6	38.9	62.7	99.0	39.5	59.4	115.0	40.5	114.0	41.5	116.6	119.3	122.0	124.9	127.7
Local area support costs	633.2	-	633.2	646.5	-	646.5	646.9	-	646.9	602.8	-	842.9	-	856.5	878.8	901.7	925.2	949.4
Corporate support costs	345.8	740.6	(394.8)	252.8	728.2	(475.4)	256.5	744.1	(487.7)	371.8	762.7	428.0	781.8	405.0	415.5	426.4	437.5	448.9
Indirect costs	515.1	454.7	60.4	440.5	450.2	(9.7)	425.3	389.9	35.4	242.1	399.7	416.7	409.6	420.2	431.1	442.4	453.9	465.7
<b>Preventative maintenance</b>																		
Labour	554.6	528.6	26.0	573.3	545.5	27.9	554.4	562.9	(8.5)	511.2	577.0	499.5	591.4	514.0	529.0	544.4	560.3	576.6
Contractors	127.3	114.7	12.6	71.4	118.3	(46.9)	128.5	120.4	8.1	160.2	123.4	120.0	126.5	122.9	125.8	128.9	132.0	135.2
Materials	462.7	325.0	137.7	518.8	335.7	183.1	451.4	341.7	109.8	520.0	350.2	525.0	359.0	537.1	549.4	562.1	575.0	588.2
Other	94.5	21.2	73.3	70.0	21.9	48.1	79.0	22.2	56.8	52.6	22.8	52.0	23.4	53.2	54.4	55.7	57.0	58.3
Local area support costs	414.1	-	414.1	492.9	-	492.9	475.5	-	475.5	398.7	-	639.3	-	649.6	666.5	683.9	701.8	720.1
Corporate support costs	225.0	541.6	(316.5)	193.5	532.9	(339.4)	187.8	544.6	(356.8)	252.7	558.3	324.7	572.2	307.2	315.2	323.4	331.8	340.5
Indirect costs	328.9	285.5	43.3	311.2	283.3	27.9	254.4	242.0	12.4	104.3	248.1	179.8	254.3	181.3	186.0	190.8	195.8	200.9
<b>Corrective maintenance</b>																		
Labour	342.9	303.6	39.3	279.8	313.3	(33.5)	274.8	323.3	(48.5)	338.8	331.4	328.0	339.7	337.6	347.4	357.6	368.0	378.7
Contractors	87.9	43.7	44.2	16.0	45.1	(29.1)	75.7	45.9	29.9	20.0	47.0	20.0	48.2	20.5	21.0	21.5	22.0	22.5
Materials	152.4	139.2	13.2	106.4	143.7	(37.3)	111.3	146.3	(35.0)	110.0	150.0	150.0	153.7	153.5	157.0	160.6	164.3	168.1
Other	112.0	88.1	24.0	84.3	90.8	(6.5)	114.1	92.4	21.7	90.0	94.7	150.0	97.0	153.5	157.0	160.6	164.3	168.1
Local area support costs	250.1	-	250.1	240.6	-	240.6	226.2	-	226.2	264.3	-	419.9	-	426.6	437.8	449.2	460.9	472.9
Corporate support costs	139.6	311.3	(171.7)	88.7	306.4	(217.7)	92.0	313.1	(221.1)	154.2	320.9	213.2	328.9	201.7	207.0	212.4	217.9	223.6
Indirect costs	207.8	164.0	43.8	147.8	162.7	(15.0)	126.4	139.0	(12.6)	69.1	142.5	118.1	146.0	119.1	122.2	125.3	128.6	132.0
<b>Routine total</b>	<b>10,160.5</b>	<b>8770.4</b>	<b>1390.1</b>	<b>10,476.6</b>	<b>9091.3</b>	<b>1385.3</b>	<b>11,880.5</b>	<b>9331.3</b>	<b>2549.2</b>	<b>10,619.8</b>	<b>9564.6</b>	<b>11,510.3</b>	<b>9803.7</b>	<b>13,153.5</b>	<b>13,305.8</b>	<b>13,693.7</b>	<b>14,049.1</b>	<b>14,124.4</b>
<b>Non-routine spend</b>																		
Labour	154.3	191.2	(36.9)	183.8	152.2	31.6	337.6	167.3	170.3	282.9	228.3	229.7	297.4	349.3	252.2	267.8	152.0	522.5
Contractors	363.9	205.8	158.1	467.8	283.8	184.0	1296.8	170.5	1126.3	430.5	253.4	591.1	330.2	1677.6	1321.3	427.0	1432.7	647.0
Materials	112.6	198.3	(85.8)	87.6	144.5	(56.9)	290.0	175.0	115.0	612.2	263.0	879.7	342.6	478.2	489.6	712.9	303.5	602.1
Other	44.7	108.1	(63.5)	36.5	76.2	(39.7)	107.9	94.4	13.4	28.1	131.1	45.3	170.8	17.5	2.5	7.2	3.9	282.4
Local area support costs	115.8	248.3	(132.5)	158.1	200.4	(42.3)	290.2	202.4	87.9	220.7	303.0	269.8	394.7	197.8	139.0	145.7	84.4	287.4
Corporate support costs	77.2	-	77.2	81.1	-	81.1	179.2	-	179.2	173.1	-	149.3	-	289.9	209.3	222.3	126.1	433.7
Indirect costs	91.5	119.7	(28.2)	104.7	94.5	10.2	155.3	81.8	73.5	57.7	139.6	82.7	181.9	139.8	109.5	110.2	60.5	201.5
<b>Non-routine total</b>	<b>960.0</b>	<b>1071.5</b>	<b>(111.5)</b>	<b>1119.5</b>	<b>951.5</b>	<b>168.0</b>	<b>2656.9</b>	<b>891.4</b>	<b>1765.5</b>	<b>1805.2</b>	<b>1318.3</b>	<b>2247.6</b>	<b>1717.7</b>	<b>3150.0</b>	<b>2523.5</b>	<b>1893.2</b>	<b>2163.1</b>	<b>2976.5</b>
<b>Total spend</b>	<b>11,120.5</b>	<b>9841.8</b>	<b>1278.6</b>	<b>11,596.1</b>	<b>10,042.8</b>	<b>1553.3</b>	<b>14,537.4</b>	<b>10,222.7</b>	<b>4314.7</b>	<b>12,425.0</b>	<b>10,882.9</b>	<b>13,757.9</b>	<b>11,521.3</b>	<b>16,303.6</b>	<b>15,829.3</b>	<b>15,586.8</b>	<b>16,212.2</b>	<b>17,100.9</b>

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 Distribution Service Contract is allocated 9.031 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 Distribution Service Contract is allocated 4.054 per cent of the forecast total indirect costs. Increases in indirect costs allocated to Operations are largely driven by new IGEM costs, which are \$180,000 in 2018/19 for this Service Contract.

## Corporate support costs

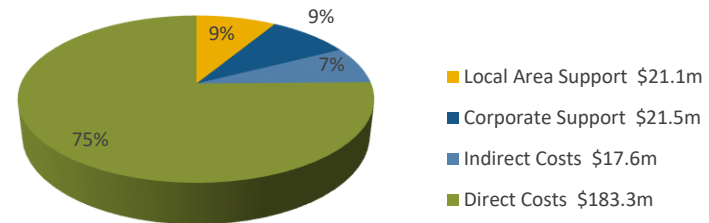
Corporate support costs are more generic than indirect costs and local area support costs, and are spread across all service contacts based on direct labour. They include the cost of human resources and payroll, information and communications technology, corporate communications, legal, property, finance,

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 Distribution Service Contract is allocated 4.491 per cent of the forecast total corporate support costs.

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



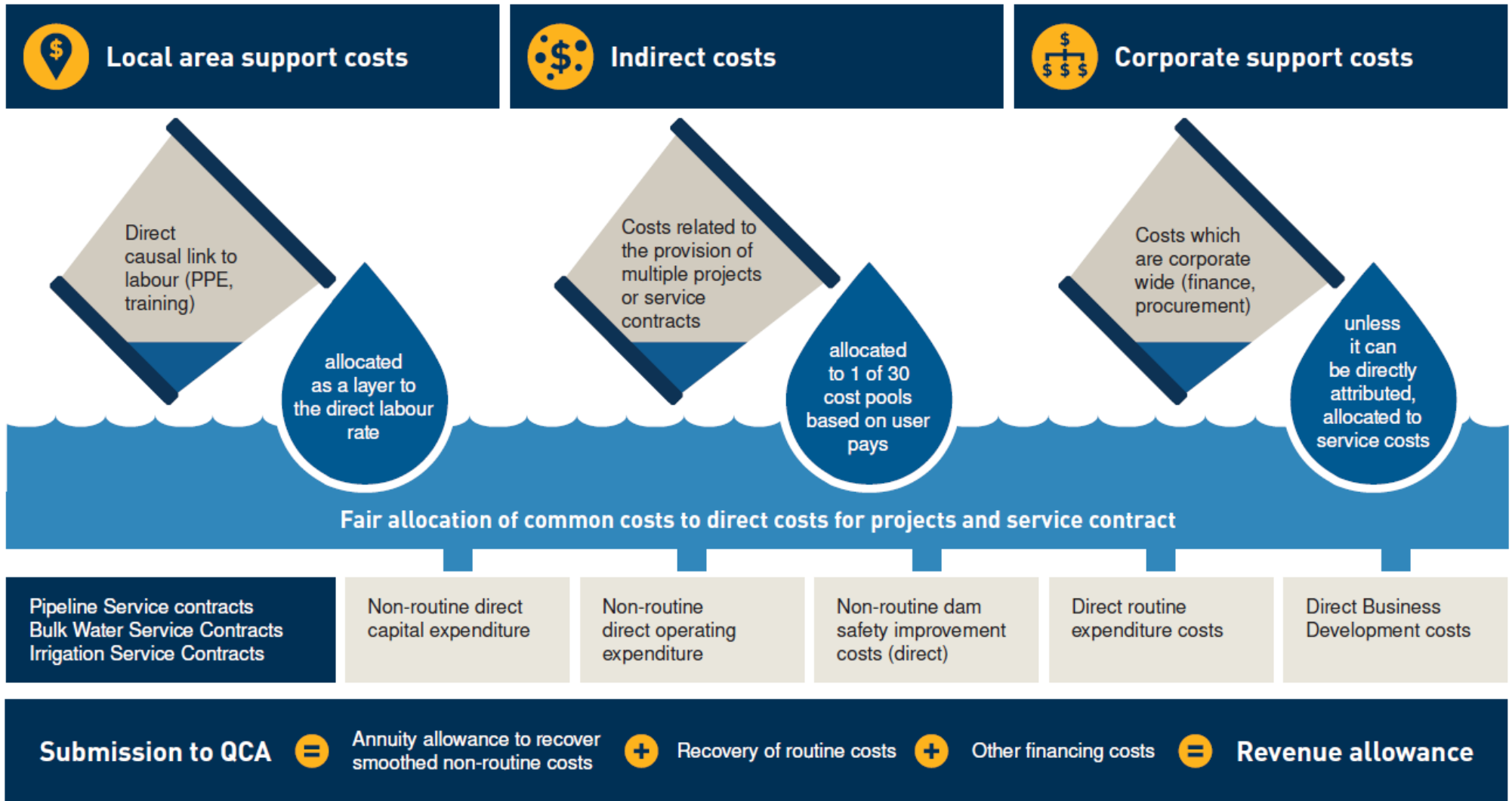
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater’s methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and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



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## 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 Bundaberg 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
  - Acrolein treatment of channels
  - 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 (two refrerrable 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	Woongarra pump station – High voltage (HV) and low voltage (LV) switchboards, control systems/Supervisory Control and Data Acquisition (SCADA) and mains cabling replacement	Works include procurement and supply activities for equipment to be installed over the 2019/20 and 2020/21 financial years. The program of works is to replace and upgrade ageing equipment to ensure the pump station's services remain reliable and safe.	386
	Meter replacements	Staged upgrade of the Bundaberg customer metering fleet that includes 38 Bingara channel meters to improve metering accuracy, scheme delivery efficiency and compliance with SunWater's standards and Australian Standard (AS) 4747.	316
	Quart Pot pump station – Pump 1 motor and discharge valve, pump 2 discharge valve, pump 3 pump and motor starter works	Facility works to be based on standard asset refurbishment periods to retain asset condition and function. Works to be scheduled to retain facility operations.	273
	Monduran, North Gregory, Abbotsford and Tirroan pump stations – Control/switchboard and cable refurbishment works	Refurbishment works based on standard asset refurbishment periods to ensure service life and on-going equipment serviceability.	193
	Meter replacements – Bulk	Gooburrum and Abbotsford pump station bulk water flow meter replacements to reinstate asset function, improve scheme operations/efficiency and upgrade metering technology to comply with SunWater's standards and AS4747.	143
	Bullyard pump station – Refurbish pump unit 1 pump, discharge and non-return valve	Refurbishment works to maintain asset condition and ensure continued reliable operations. Works to be combined to minimise pump station outage period.	103
	Don Beattie pump station – Refurbish pump unit 3 and suction valve	Refurbishment based on asset service hours and condition to ensure continued reliable service. Works to be combined to minimise pump unit outage period.	96
	Isis balancing storage	Install standpipe piezometers at V-Notch Weir to monitor storage embankment performance.	93

Year	Work Items	Work Description	Budget (\$'000)
	Meter replacements – Bulk	Monduran pump station bulk water meter replacements with current technology to improve metering accuracy, delivery efficiency and compliance with SunWater’s standards and AS4747.	89
	Monduran pump station	Re-route town water supply pipework within the pump station to bypass an inaccessible pipe defect. Works based on asset condition.	54
	Other works	The balance of the 2018/19 program consists of the Gin Gin main channel risk assessment (Stage 2), pump and valve refurbishments at various facilities, common control system works at Abbotsford and Tirroan pump stations and various smaller works throughout the Service Contract.	502
	<b>2018/19 Total</b>		<b>2248</b>
<b>2019/20</b>	Monduran pump station – Refurbish pump (1, 2, 3), motor (3), discharge (3) and suction valve (3), and other minor works	Primary works are to maintain pump asset condition and serviceability. Minor works include SCADA computer replacement, motor/pump performance testing, HV testing and third-party crane inspection.	420
	Don Beattie pump station – Refurbish pipe works, pump 1 and suction valve (1 & 2) and related activities	Works to blast and repaint metal pipework/ladders/meter pit metalwork and refurbish pump unit 1 and suction valves to maintain asset condition, function and to extend service lives.	413
	Woongarra pump station – HV and LV switchboards, control systems/SCADA and mains cabling replacement (Stage 1)	Stage 1 works consist of equipment installation and commissioning activities. The program of works is to replace and upgrade ageing equipment to ensure the pump station’s services remain reliable and safe.	401
	Meter replacements	Staged upgrade of Bundaberg customer and bulk water metering fleet, including Gin Gin main channel customer meters, bulk water/operational meters at Bucca, McIlwraith, Bullyard, Tirroan and North Gregory pump stations, and St Agnes and Berrembea operational meters. The works are to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747.	288
	Bullyard, Dinner Hill, Woongarra and North Gregory pump stations – Pump, motor and valve refurbishments	Mechanical and electrical refurbishment works based on standard refurbishment periods to maintain equipment functionality and serviceability.	225

Year	Work Items	Work Description	Budget (\$'000)
	Gooburrum pump station – Pump and motor (1), discharge valves (1 & 2), inlet screen and bulkhead refurbishment	Mechanical and electrical works based on standard refurbishment life and by asset condition. Works to reinstate asset service lives and ensure continued serviceability.	236
	Woongarra, Bingera, Isis and Gooburrum main channel – Refurbish float regulating gates	Ten gates in total to be blasted, painted, fitted with seals/bearing and anodes, and recommissioned. Works based on SunWater’s Float Regulator Gate Strategy to retain gate condition in perpetuity.	258
	Mcllwraith, Quart Pot, Woongarra, Abbotsford, Tirroan and North Gregory pump stations – Building refurbishments	Pump station building refurbishments based on standard refurbishment periods to restore building roofing, cladding, paint and fixtures and ensure maximum service life from the structures.	155
	Isis, Woongarra, Gooburrum and Gin Gin System – Air vent refurbishment works	Works are based on the 30 Year Irrigation Strategy to set aside 5% of replacement cost per 5 years to refurbish air vent valves/pipes/structures based on condition.	67
	Bucca pump station – Replace motor soft starters for units 1 & 2	Works based on recent condition assessment (GHD 2017) and asset life. Motor starters, while currently operating reliably, are beyond standard asset life and condition data supports replacement of the units in 2020.	64
	Woongarra pump station – Cooling water units (1, 2 ,3) replacement works	Cooling water unit replacement works based on standard asset service lives. Units have exceeded standard life through refurbishment. Condition to be reassessed in 2019 and review undertaken.	63
	Gooburrum, Monduran, Quart Pot and Woongarra pump stations – Electrical meter compliance testing	The testing is to confirm continued accuracy of pump station electrical metering systems and ensure accurate power consumption recording and energy billing.	55
	Abbotsford, Bullyard and Bucca pump station – Switchboard and control system replacement options analyses	Options analyses for pump station replacement works to be undertaken to better inform project scope/timing and costs to ensure prudence and efficiency.	49
	Bingera and Gin Gin main channel – Fencing refurbishment works	Works are based on assessed condition and identified repairs to retain asset functionality and manage access risks.	52
	Quart Pot, Woongarra and Gooburrum pump stations – HV/LV inspections	Five yearly inspection programs to confirm equipment condition, safety and compliance with electrical standards. Condition reports inform future planned asset refurbishments and replacements.	44

Year	Work Items	Work Description	Budget (\$'000)
	Other works	The balance of the 2019/20 program consists of smaller pump station pump, motor and valve refurbishments aligning with standard scheduled periods, HV testing of pump station facilities, switchboard/control system options analyses, screens and gate refurbishments, and third-party crane inspections.	360
	<b>2019/20 Total</b>		<b>3150</b>
<b>2020/21</b>	Woongarra pump station – HV and LV switchboards, control systems/SCADA and mains cabling replacement (Stage 2)	Stage 2 works consist of equipment installation and commissioning activities. The program of works is to replace and upgrade ageing equipment to ensure the pump station's services remain reliable and safe.	694
	Isis, Woongarra, Gooburrum, Bingera and Abbotsford – Fencing and roads works	Funding based on 30 Year Irrigation Strategy arrangements and to target node or sectional repairs and replacement activities as defined by the condition and risk assessment (also part of this project).	308
	Meter replacements – Bulk	Woongarra pump station bulk water meter replacements (flow meters 1 to 5). The five rising main meters are to be replaced due to age and serviceability with modern technology arrangements in accordance with SunWater's standards and AS4747. The meters will provide improved accuracy and operational efficiencies.	216
	Bullyard pump station – Refurbish pump unit 4 pump, discharge and non-return valve, and replace LV switchboard/controls system	Pump unit works to maintain asset condition and is based on standard asset refurbishment life. Electrical works are based on standard asset life and to target equipment serviceability issues. Both works to ensure continued reliable operations of the facility.	148
	Meter replacements	Staged replacement of 16 Gooburrum channel/balancing storage customer meters to improve metering accuracy, scheme delivery efficiency and compliance with SunWater's standards and AS4747.	114
	Abbotsford pump station – Replace LV switchboard	Based on standard asset service life and obsolescence. The works are subject to the scheduled options analysis in 2019/20 to determine the most prudent and efficient strategy.	185
	Mcllwraith pump station – Pump, motor, discharge, non-return and suction valve works on unit 2	Mechanical and electrical works based on standard refurbishment periods and combined to minimise supply disruption. Works to ensure pumping equipment reinstated to as-new condition and to ensure continued functionality and serviceability.	98



Year	Work Items	Work Description	Budget (\$'000)
	Quart Pot pump station – Pump, discharge valve and actuator refurbishment on unit 4	Mechanical works based on standard refurbishment periods to ensure continued functionality and serviceability.	76
	Bullyard and Gooburru pump station – Cable and switchboard replacement options analyses	Options analyses for pump station replacement works to be undertaken to better inform project scope/timing and costs to ensure prudence and efficiency.	71
	Isis and Gooburru main channels – Regulating gate refurbishments	Three float regulating gate works based on periodic refurbishment of coating, bearing, seals and anodes to ensure maximum asset life and serviceability. Works based on SunWater's Float Regulator Gate Strategy to retain gate condition in perpetuity.	63
	Woongarra pump station – Valve and motor refurbishments	Suction and discharge valves (units 3 & 4) and pump motor 4 refurbishment works based on standard refurbishment periods. Works will be scheduled to minimise supply disruptions and specified to retain maximum asset life and serviceability.	59
	Isis and Gooburru balancing storages – Outlet gate refurbishments	Outlet gate works based on standard asset refurbishment period (Gooburru) and recent condition data (Isis). The works are notionally to blast, paint and replace bearings and seals. Subject to overall condition, replacement may be considered where prudent and efficient.	57
	Monduran pump station – Refurbish pump motor 1	Motor refurbishment based on standard refurbishment period. Works involve insulation testing and repairs, bearings, balancing and repainting to ensure continued asset function and serviceability.	43
	Other works	The balance of the 2020/21 program consists of smaller pump station pump, motor and valve refurbishments, and various other minor works.	391
	<b>2020/21 Total</b>		<b>2523</b>
<b>2021/22</b>	Meter replacements	Staged replacement of 64 Gooburru, Berrembea and Bingera customer meters to improve metering fleet accuracy and performance, scheme delivery efficiency and compliance with SunWater's standards and AS4747.	515
	Bullyard pump station – Replace mains cable	Based on standard asset service life and obsolescence. The works are subject to the scheduled options analysis in 2019/20 to determine the most prudent and efficient strategy.	269

Year	Work Items	Work Description	Budget (\$'000)
	Bucca pump station – Replace LV switchboard and mains cabling	Based on standard asset service life and obsolescence. The works are subject to the scheduled options analysis in 2019/20 to determine the most prudent and efficient strategy.	229
	Woongarra and Isis main channel – Refurbish balancing storage slide and regulating gate	Based on standard asset refurbishment timing and assessed condition. The works are to reinstate gate condition and maintain function.	116
	Isis, Woongarra and Bingera channel – Replace safety screens	Based on standard asset life and assessed condition. Works to replace metal/aluminium safety screens to ensure workplace health and safety and public risks are managed.	158
	Bullyard pump station – Pump, motor and discharge suction valve refurbishment on unit 3	Works based on standard asset refurbishment period and coordinated to minimise supply disruption and ensure the pumping plant remains functional and serviceable.	106
	Berrembea and Tirroan system – Scour valve refurbishments	Refurbishment based on standard periods. Assets to be selected by condition and replacement considered for least whole-of-life cost.	102
	Isis and Woongarra balancing storages – 5 yearly inspections	The balancing storages are classified as referable dams and under the dam safety condition schedule are required to have comprehensive 5 yearly inspections to ensure compliance with the conditions and safety standards are maintained.	71
	Meter replacements – Bulk	Don Beattie pump station bulk water meter replacements based on standard asset life and to be replaced with a modern technology arrangement in accordance with SunWater’s standards and AS4747. The meters will provide improved accuracy and operational efficiencies.	42
	Other works	The balance of the 2021/22 program consists of motor, pump and valve works at a number of pump stations, scour valve replacements and channel protection works.	285
	<b>2021/22 Total</b>		<b>1893</b>
<b>2022/23</b>	Gooburrum pump station – Replace HV switchboard and supply cabling	Based on standard asset service life and obsolescence. The works are subject to the scheduled options analysis in 2021/22 to determine the most prudent and efficient strategy.	960

Year	Work Items	Work Description	Budget (\$'000)
	Meter replacements	Staged replacement of 37 Gooburrum channel customer meters to improve metering fleet accuracy and performance, scheme delivery efficiency and compliance with SunWater's standards and AS4747.	246
	Woongarra pump station – Replace pump unit 1 & 2	Works based on standard asset life and to be confirmed by updated assessed condition. The purpose of the work is to reinstate like new performance and reset asset service life.	245
	Meter replacements	Staged replacement of 18 Tirroan and St Agnes channel customer meters to improve metering fleet accuracy and performance, scheme delivery efficiency and compliance with SunWater's standards and AS4747.	134
	Gooburrum pump station – Refurbish pump 1 discharge, suction valve and motor 2 HV testing	Works based on standard refurbishment periods and assessed condition to ensure continued serviceability and performance.	121
	Don Beattie, Quart Pot and Monduran electrical meter compliance testing	The testing is to confirm continued accuracy of pump station electrical metering systems and to ensure accurate power consumption recording and energy billing.	85
	Quart Pot, Monduran, Don Beattie and Woongarra pump stations – HV/LV inspections	Five yearly inspection programs to confirm equipment condition, safety and compliance with electrical standards. Condition reports inform future planned asset refurbishments and replacements.	60
	Woongarra and Isis main channel – Float regulator gate refurbishments	Two float regulating gate works based on periodic refurbishment of coating, bearing, seals and anodes to ensure maximum asset life and serviceability. Works based on SunWater's Float Regulator Gate Strategy to retain gate condition in perpetuity.	45
	Other works	The balance of the 2022/23 program consists of pump station switchboard options analyses at Don Beattie and Quart Pot pump stations, and various pump, motor and valve refurbishments across the Service Contract's other pump stations.	267
	<b>2022/23 Total</b>		<b>2163</b>
<b>2023/24</b>	Don Beattie pump station – Replace HV switchboard	Based on standard asset service life and obsolescence. The works are subject to the scheduled options analysis in 2022/23 to determine the most prudent and efficient strategy.	533

Year	Work Items	Work Description	Budget (\$'000)
	Isis system – Refurbish concrete channel lining	Works based on 30 Year Irrigation Strategy arrangements to target node or sectional major repairs and reinstatement activities. Target areas to be defined through condition and risk assessment (part of this project) and a prioritised schedule of works.	495
	Bingara system – Refurbish concrete channel lining	Works based on 30 Year Irrigation Strategy arrangements to target node or sectional major repairs and reinstatement activities. Target areas to be defined through condition and risk assessment (part of this project) and a prioritised schedule of works.	482
	Meter replacements	Replacement of 36 Gooburrum channel customer meters to improve metering fleet accuracy and performance, scheme delivery efficiency and compliance with SunWater’s standards and AS4747.	350
	Don Beattie pump station – Replace pump unit 2	Works based on standard asset life and to be confirmed by updated assessed condition. The purpose of the work is to reinstate like new performance and reset asset service life.	254
	Quart Pot pump station – HV switchboard 2 refurbishment	Works are based on standard asset refurbishment periods and service life. An options study scheduled in 2023 will confirm the most prudent and efficient strategy to refurbish or replace the switchboard.	222
	Woongarra pump station – Refurbish pumps 4 & 5 and motor 2	Works are based on standard refurbishment periods to ensure continued reliable performance. Timing in relation to adjoining equipment works will be considered to minimise supply disruption.	145
	Quart Pot & Don Beattie pump station – Motor starter refurbishments	The works are based on standard refurbishment periods to ensure reliable and safe motor starting. Timing of works confirmed with 2017 condition assessment data.	146
	Woongarra balancing storage – Dam safety review	The balancing storage is a Category 1 referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> . The 20 year safety review is a requirement under the storage’s dam safety conditions.	76
	Other works	The balance of the 2023/24 program consists of various pump, motor, valve refurbishments, and slide gate refurbishments.	274
	<b>2023/24 Total</b>		<b>2977</b>



### **Contact us**

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

Email: [nspfeedback@sunwater.com.au](mailto:nspfeedback@sunwater.com.au)

Post: NSP Feedback  
PO Box 15536 City East  
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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 Distribution Service Contract

6 November 2018

Final

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## 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 Distribution 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 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<sup>1</sup> – Restatement of Table 2 from the 2019 Network Service Plan**

Product	Charge type	2018/19 (\$/ML)	Cost (\$/ML) <sup>2</sup>	Subsidy (\$/ML)
Medium Priority Allocation Charge – Channel Distribution	Channel Distribution – Part C (fixed charge based upon entitlement)	43.98	43.75	N/A
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	57.50	61.02	3.52

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<sup>1</sup> – Restatement of Table 6 from the 2019 Network Service Plan**

	2016/17			2017/18 <sup>2</sup>		2018/19 <sup>2</sup>		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	5728.9	3914.2	1814.7	4393.5	4012.1	4528.0	4112.4	5827.9	5694.6	5894.0	6415.2	6373.7
Insurance	766.9	576.1	190.8	708.3	590.5	747.7	605.3	763.0	780.6	798.5	816.9	835.7
Operations	2233.0	1947.1	285.9	2602.6	1995.8	2495.2	2045.7	2507.6	2572.9	2639.8	2707.1	2776.1
<b>Operations Total</b>	<b>8728.9</b>	<b>6437.5</b>	<b>2291.4</b>	<b>7704.3</b>	<b>6598.4</b>	<b>7770.9</b>	<b>6763.4</b>	<b>9098.5</b>	<b>9048.0</b>	<b>9332.4</b>	<b>9939.2</b>	<b>9985.5</b>
Preventative maintenance	2131.0	1833.8	297.1	2235.1	1879.7	2340.2	1926.7	2360.9	2420.7	2482.0	2543.9	2607.3
Corrective maintenance	1020.6	1059.9	(39.3)	1509.8	1086.4	1399.2	1113.6	1409.8	1445.8	1482.7	1519.9	1558.1
<b>Routine Total</b>	<b>11,880.5</b>	<b>9331.3</b>	<b>2549.2</b>	<b>11,449.2</b>	<b>9564.6</b>	<b>11,510.3</b>	<b>9803.7</b>	<b>12,869.2</b>	<b>12,914.5</b>	<b>13,297.1</b>	<b>14,003.0</b>	<b>14,150.8</b>

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
<b>Annuity</b>								
Opening balance <sup>1</sup>	6883.1	6601.6	7432.7	7695.9	6592.7	7209.7	8727.0	10,392.0
Spend	(2656.9)	(1569.7)	(2247.6)	(3150.0)	(2523.5)	(1893.2)	(2163.1)	(2976.5)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>2</sup>	1859.9	1906.4	1954.1	1998.0	2755.0	2988.9	3317.8	3448.2
Interest/financing costs	515.5	494.5	556.7	576.4	385.5	421.5	510.2	607.6
<b>SunWater – Closing balance</b>	<b>6601.6</b>	<b>7432.7</b>	<b>7695.9</b>	<b>7120.4</b>	<b>7209.7</b>	<b>8727.0</b>	<b>10,392.0</b>	<b>11,471.3</b>
<b>QCA – Closing balance</b>	<b>8761.5</b>	<b>10,005.9</b>	<b>10,991.7</b>					
Difference	(2159.9)	(2573.1)	(3295.8)					

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	74
Annuity income difference	(404)
Intersafe project spend adjustment	(147)
Interest difference	136
Alignment to previously reported data	0
Interest	(187)
<b>Total</b>	<b>(528)</b>

**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
<b>Cost building blocks</b>						
Routine costs	11,510.3	12,869.2	12,914.5	13,297.1	14,003.0	14,150.8
Non-routine costs (Annuity contribution)	1954.1	1998.0	2755.0	2988.9	3317.8	3448.2
Dam improvement program	-	-	-	-	-	-
Working capital	9.1	10.0	-	-	-	-
Revenue offsets	(4.0)	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)
Transfers (Distribution losses)	405.9	410.0	925.5	945.5	967.4	981.8
<b>Total costs</b>	<b>13,875.4</b>	<b>15,283.2</b>	<b>16,590.8</b>	<b>17,227.3</b>	<b>18,283.8</b>	<b>18,576.4</b>
<b>Notional cost allocations</b>						
Irrigation customers	11,094.0	12,260.1	13,274.1	13,781.9	14,634.1	14,861.2
Urban/Industrial customers	339.4	358.1	402.4	418.4	441.3	451.1
SunWater	2441.9	2665.1	2914.3	3027.0	3208.4	3264.0
<b>Total costs</b>	<b>13,875.4</b>	<b>15,283.2</b>	<b>16,590.8</b>	<b>17,227.3</b>	<b>18,283.8</b>	<b>18,576.4</b>

**Table 6: Historical actual water usage<sup>1</sup>**

<b>Year</b>	<b>Usage (ML)</b>
2002/03	54,285
2003/04	74,833
2004/05	104,002
2005/06	106,259
2006/07	86,985
2007/08	55,761
2008/09	59,123
2009/10	91,471
2010/11	33,923
2011/12	78,341
2012/13	87,436
2013/14	166,545
2014/15	101,563
2015/16	118,628
2016/17	134,817
<b>15-year average</b>	<b>90,265</b>

1. Includes water deliveries to Burnett Water Pty Ltd.