



2018/19 to 2023/24 Network Service Plan

# Mareeba-Dimbulah Distribution Service Contract

31 July 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 Mareeba-Dimbulah

We’re focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Mareeba-Dimbulah 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 maintaining an efficient and reliable water supply and continuing safe operations. Customers will also see improved transparency, openness to working together, a focus on efficiency gains, and more appropriate risk sharing, which hopefully results in lower costs.

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.

**Travis Richards**

General Manager North

# 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 consulted with the Mareeba-Dimbulah Irrigation Area Council (MDIAC) on the draft NSP and received endorsement from the Council. Feedback has been considered and incorporated where appropriate.

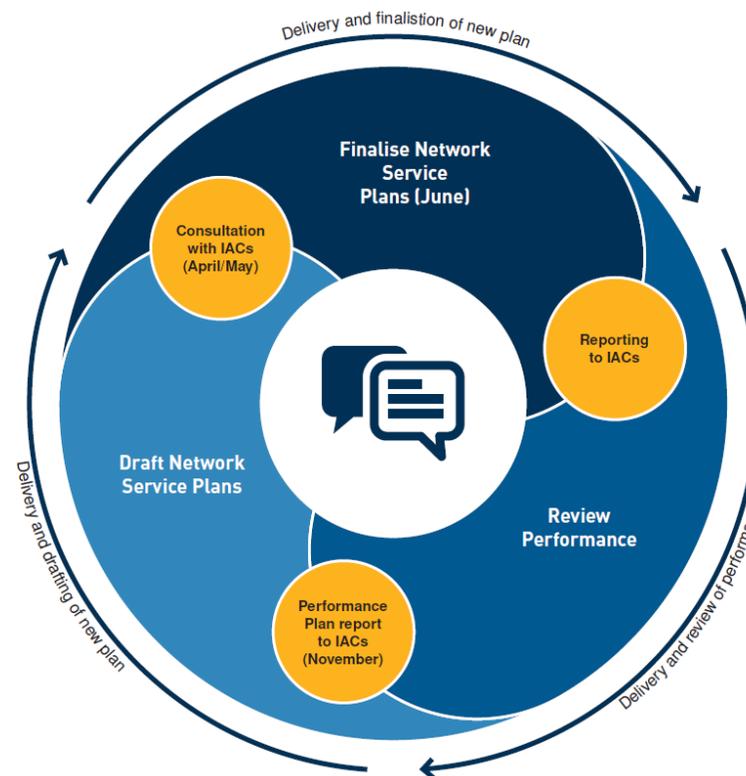
To have your say and shape future NSPs, please contact us via email or post:

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 Mareeba-Dimbulah Distribution Service Contract is one of SunWater’s largest service contracts.

The majority of our 1097 customers in this Service Contract are irrigators who grow a variety of crops including mangoes, bananas, pawpaws, various citrus, avocados, general horticulture, sugar cane, tea-trees and coffee. Water is also supplied to the townships of Walkamin, Mareeba, Mutchilba and Dimbulah.

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	144,538	0	144,538	105,680
Urban	1153	421	732	412
Industrial	1243	135	1108	684
SunWater (excluding distribution loss)	0	0	0	0
SunWater distribution loss	45,000	8000	37,000	25,308
<b>Total</b>	<b>191,934</b>	<b>8556</b>	<b>183,378</b>	<b>132,084</b>

1. Distribution system only.

The Mareeba-Dimbulah Distribution Service Contract has five tariff groups, with a declining block tariff applying to the ‘Outside a re-lift’ tariff groups:

- Channel (Outside a re-lift up to 100 ML)
- Channel (Outside a re-lift 100 to 500 ML)
- Channel (Outside a re-lift more than 500 ML)
- Channel (Re-lift)
- River (Supplemented Streams and Walsh River).

The 2018/19 charges and cost per megalitre are shown in Table 2 below. For simplicity, SunWater has presented charges and costs for the Channel (Outside a re-lift up to 100 ML) tariff group only. For the full suite of charges that apply, refer to SunWater’s website.

In addition to the Part C and D charges, an annual access charge of \$670.99 per customer applies in 2018/19.

**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)	50.56	51.67	1.11
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	8.07	12.06	3.99

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 Mareeba-Dimbulah Distribution Service Contract.

Table 3 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.

Table 3 indicates that the maximum allowable number of service interruptions was exceeded in 2016/17. The majority of these service interruptions are short, 1- to 2-day interruptions related to repairing the joints on pipelines within the system. This is a well-documented and understood issue in the Service Contract and SunWater continues to work closely with impacted customers to ensure the duration of any service interruptions are kept to a minimum.

**Table 3: Service targets and performance**

Service target		Target	Number of exceptions 2016/17
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	6 months	0
	For shutdowns planned to exceed 3 days	4 weeks	0
	For shutdowns planned to be less than 4 days	5 days	0
Unplanned shutdowns – duration <sup>1</sup>	Unplanned shutdowns during Peak Demand Period	72 hours	0
	Unplanned shutdowns outside Peak Demand Period	5 working days	
Maximum number of interruptions <sup>2</sup>	Planned or unplanned interruptions per water year	10	4

1. This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.
2. This is the total number of bulk and distribution customers in the scheme that have been interrupted in excess of the target.

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.

## 2.3 Key infrastructure

Table 4 lists the key infrastructure used to deliver distribution services to our customers in Mareeba-Dimbulah. We also maintain a large network of channels and pipelines, and four balancing storages.

**Table 4: Key infrastructure**

Asset	Description	Capacity
Bruce Weir	Mass concrete gravity wall and a central spillway	970 ML
Collins Weir	Mass concrete gravity wall and a central spillway	600 ML
Dulbil Weir	Concrete gravity wall with two spillways	271 ML
Granite Creek Weir	Concrete gravity wall with two spillways	244 ML
Leafgold Weir	Mass concrete gravity wall and a central spillway	260 ML
Solanum Weir	Mass concrete gravity wall and a central spillway	345 ML
Price Creek A pump station	2 pumps and a 1 ML balancing storage	22 ML/day & 12 ML/day (pumps)
Price Creek B pump station	2 pumps and a 1 ML balance and storage	17 ML/day & 7 ML/day (pumps)
WB10 pump station	1 pump	8 ML/day
Paddy's Green A pump station	3 pumps and 1 ML storage	18 ML/day (pumps)
Paddy's Green B pump station	3 pumps and 1 ML storage	16 ML/day (pumps)

### 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 Mareeba-Dimbulah 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 that the level of Tinaroo Dam and the expected high announced allocation will result in an increase in revenue for the Mareeba-Dimbulah Distribution Service Contract in 2018/19.

In 2018/19, SunWater forecasts an increase in routine and non-routine expenditure for the Mareeba-Dimbulah Distribution Service Contract. SunWater remains focused on continual review and implementation of practices that improve efficiency and performance within the Service Contract 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**.

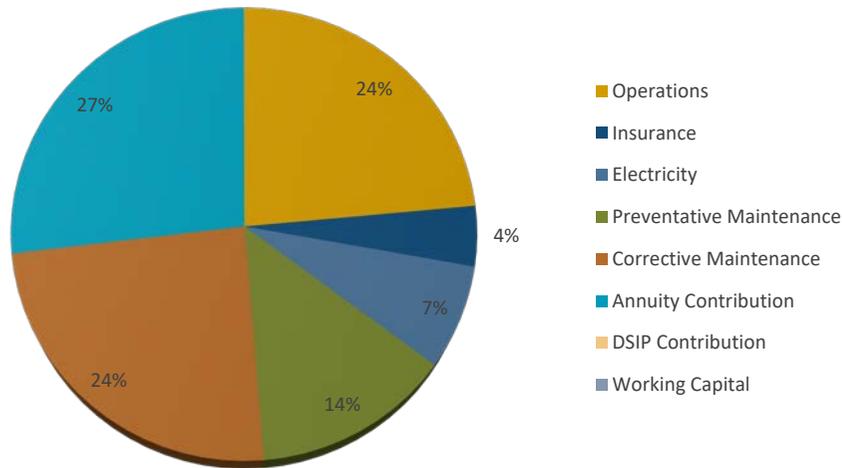
**Table 5: Service contract financial summary<sup>1,2</sup>**

Mareeba-Dimbulah Service Contract	2014/15 Actual \$'000	2015/16 Actual \$'000	2016/17 Actual \$'000	2017/18 Estimate \$'000	2018/19 Forecast \$'000
Revenue					
Irrigation	6126.2	6749.9	5973.8	5995.6	6810.9
Community Service Obligation	141.6	82.2	65.8	48.8	29.7
Industrial <sup>3</sup>	212.9	203.6	239.0	181.1	187.8
Urban <sup>3</sup>	195.0	197.9	198.6	204.7	209.8
Revenue transfers <sup>4</sup>	(512.2)	(536.7)	(540.4)	(812.5)	(832.6)
Drainage	-	-	-	-	-
Other	33.1	29.7	46.3	13.0	14.0
Insurance proceeds – flood	-	-	-	-	-
<b>Revenue Total</b>	<b>6196.6</b>	<b>6726.7</b>	<b>5983.2</b>	<b>5630.8</b>	<b>6419.6</b>
Less – Routine expenditure	(5123.3)	(4952.8)	(4730.7)	(4998.0)	(6209.9)
Less – Non-routine expenditure					
Annuity funded	(543.7)	(1128.6)	(902.2)	(672.0)	(1519.2)
Non annuity funded <sup>5</sup>	(7.4)	(28.2)	(26.5)	-	-
<b>Surplus (deficit)</b>	<b>522.2</b>	<b>617.0</b>	<b>323.8</b>	<b>(39.2)</b>	<b>(1309.6)</b>

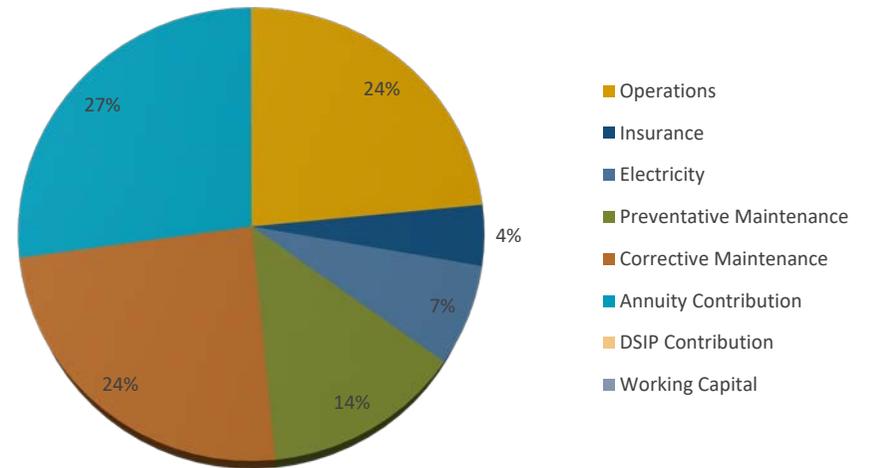
- Totals may not add due to rounding.
- This table excludes the irrigation channel efficiency project which was awarded funding under the National Water Infrastructure Development Fund.
- Forecast revenues for industrial and urban customers are based on current contractual arrangements.
- Revenue transfers 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.
- This is expenditure which has not been funded by irrigation customers.

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

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



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



## 4. Cost of delivering services – routine expenditure

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

SunWater has projected the routine expenditure budget to increase in the Mareeba-Dimbulah Distribution Service Contract in 2018/19 (refer to Table 6). SunWater’s proposed budgets for routine operating expenditure for 2019/20 to 2023/24 are also presented in this table.

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

Following consultation with customers on the draft NSPs and a further review of potential savings in non-direct costs, SunWater has included an additional one-off reduction in routine non-direct expenditure from 2019/20 onwards comprising: an 8.00 per cent reduction in corporate support costs, a 1.00 per cent reduction in local area support costs and a 2.36 per cent reduction in indirect costs.

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

**Table 6: Routine operating expenditure<sup>1,2</sup>**

Mareeba-Dimbulah 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				
Electricity	497.9	445.7	52.2	587.9	456.9	630.9	468.3	636.6	633.4	654.3	671.3	658.6
Insurance	375.4	306.8	68.6	375.4	314.5	365.3	322.4	373.7	382.3	391.1	400.1	409.3
Operations	1438.2	1650.2	(211.9)	1467.3	1691.4	1999.0	1733.7	2010.1	2064.0	2119.4	2176.2	2234.6
<b>Operations Total</b>	<b>2311.6</b>	<b>2402.7</b>	<b>(91.1)</b>	<b>2430.6</b>	<b>2462.8</b>	<b>2995.2</b>	<b>2524.4</b>	<b>3020.4</b>	<b>3079.7</b>	<b>3164.8</b>	<b>3247.6</b>	<b>3302.5</b>
Preventative maintenance	832.7	529.4	303.3	798.8	542.6	1143.7	556.2	1151.9	1182.6	1214.0	1246.3	1279.5
Corrective maintenance	1586.4	1579.3	7.2	1768.6	1618.7	2071.0	1659.2	2090.4	2144.9	2200.7	2258.0	2316.9
<b>Routine Total</b>	<b>4730.7</b>	<b>4511.4</b>	<b>219.3</b>	<b>4998.0</b>	<b>4624.2</b>	<b>6209.9</b>	<b>4739.8</b>	<b>6262.8</b>	<b>6407.2</b>	<b>6579.5</b>	<b>6752.0</b>	<b>6898.8</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

Mareeba-Dimbulah Distribution Service Contract's total operations budget in 2018/19 is above the QCA's recommended costs (adjusted for inflation). This is primarily attributed to higher than projected electricity and insurance costs.

For further detail on what is included in operations expenditure, refer to **Appendix 3**.

### Electricity

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

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

### Insurance

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

Although insurance premiums are forecast to increase globally in 2018/19, SunWater is forecasting a small reduction in our insurance costs in 2018/19 compared to the 2017/18 budget as a result of the review of our insurance coverage. As flagged in the draft NSPs, SunWater is considering self-insurance in the distribution schemes in order to achieve further cost savings. However, given the potential consequences for customers should an event occur,

SunWater will undertake more detailed consultation with customers before making such a significant change to policy coverage.

## 4.2 Preventative maintenance

Preventative maintenance underpins the ongoing operational performance and service capacity of Mareeba-Dimbulah 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. Mareeba-Dimbulah Distribution Service Contract's preventative maintenance for 2018/19 is budgeted to be 105.64 per cent above the QCA's recommended costs (adjusted for inflation). This is attributed to SunWater's projected labour and contractor costs exceeding the QCA's recommended costs and the impact of a change in 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.

Mareeba-Dimbulah Distribution Service Contract's corrective maintenance for 2018/19 is budgeted to be 24.82 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. The 2018/19 non-routine annuity funded works include a focus on the following key projects:

- repairing bench flume joints
- upgrade/refurbishment of regulating gates
- meter replacements.

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>

Mareeba-Dimbulah 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				
<b>Annuity funded</b>												
Operations	47.6	-	47.6	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	854.5	1546.3	(691.8)	672.0	2945.5	1519.2	999.6	1227.8	1276.9	1231.4	1303.9	1367.7
<b>Non-routine total</b>	<b>902.2</b>	<b>1546.3</b>	<b>(644.2)</b>	<b>672.0</b>	<b>2945.5</b>	<b>1519.2</b>	<b>999.6</b>	<b>1227.8</b>	<b>1276.9</b>	<b>1231.4</b>	<b>1303.9</b>	<b>1367.7</b>
<b>Non annuity funded</b>												
<b>Other</b>	<b>26.5</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.

We will be resetting the annuity contribution downwards in 2020/21 to reflect lower non-routine expenditure forecasts.

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

Mareeba-Dimbulah 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>	4015.7	5585.4	7557.2	8885.0	11,696.0	13,043.6	14,589.9	17,092.7
Spend	(902.2)	(672.0)	(1519.2)	(1227.8)	(1276.9)	(1231.4)	(1303.9)	(1367.7)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	2171.1	2225.4	2281.0	2338.1	1947.6	2022.9	2962.4	3006.1
Interest/financing costs	300.8	418.3	566.0	665.5	676.8	754.8	844.3	989.1
<b>SunWater – Closing Balance</b>	<b>5585.4</b>	<b>7557.2</b>	<b>8885.0</b>	<b>10,660.7</b>	<b>13,043.6</b>	<b>14,589.9</b>	<b>17,092.7</b>	<b>19,720.2</b>
<b>QCA – Closing Balance</b>	<b>3214.8</b>	<b>2735.5</b>	<b>4221.8</b>					
Difference	2370.6	4821.7	4663.2					

1. Totals may not add due to rounding.

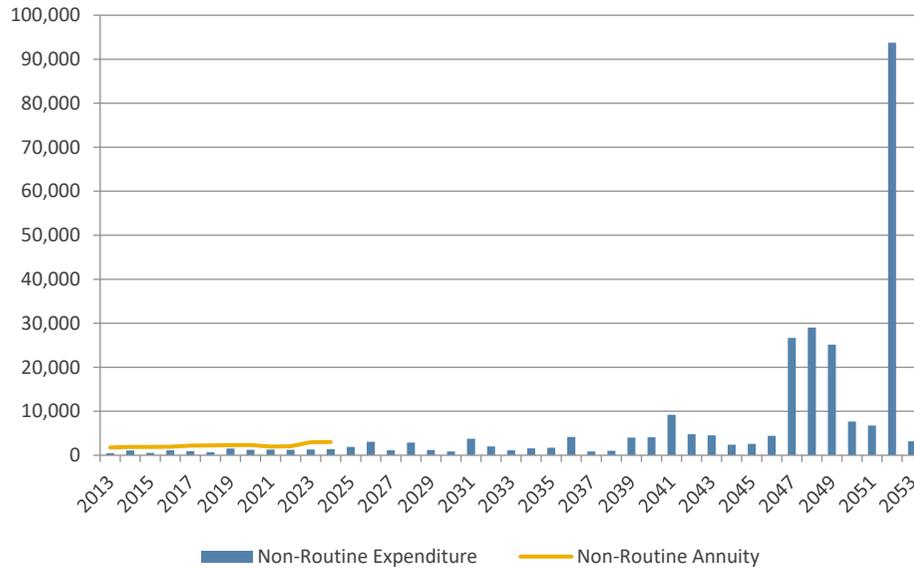
2. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. For example, flood repairs associated with an insurance claim that were still outstanding in 2012. These amounts have been carried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

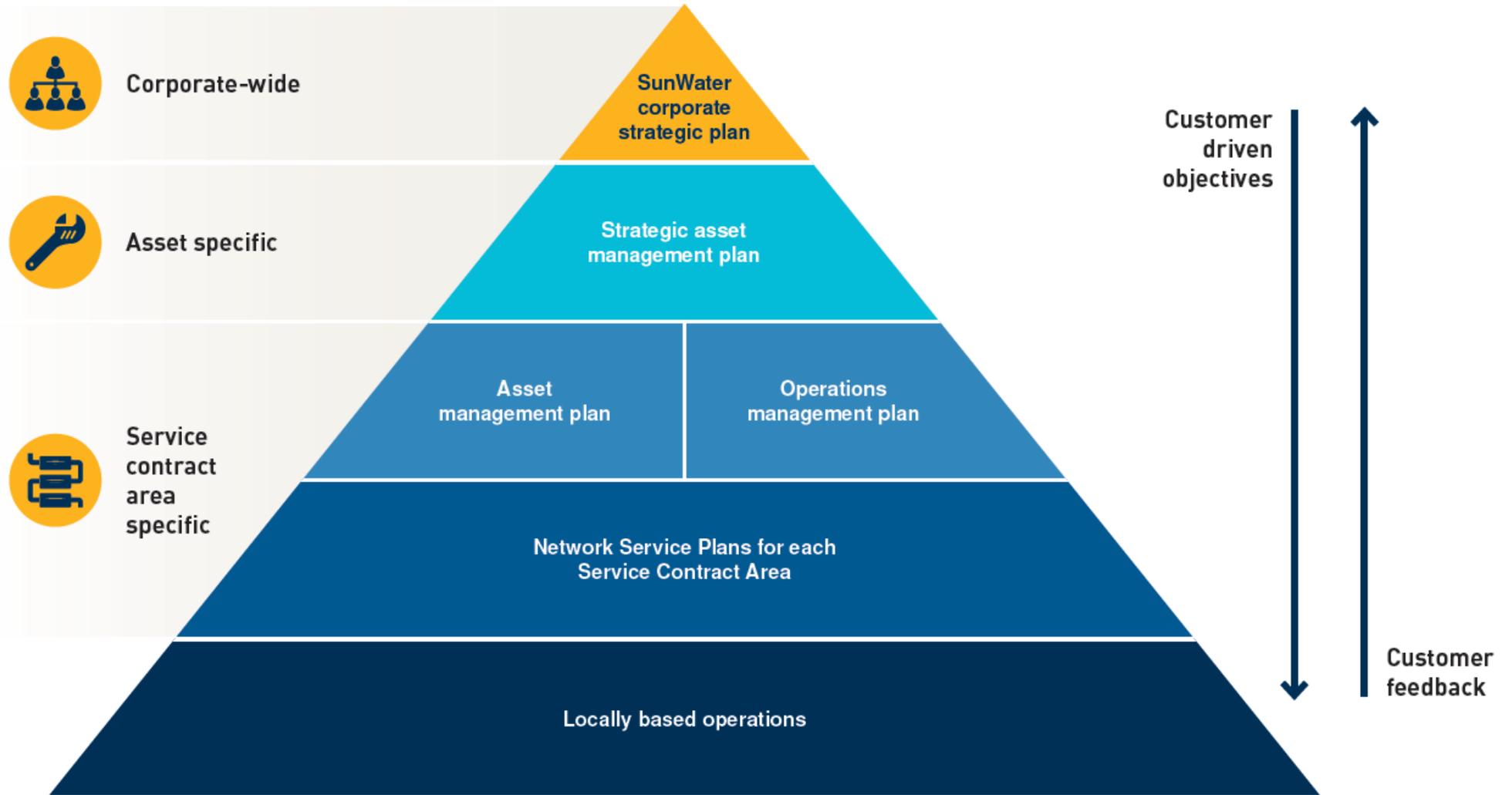
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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>

Mareeba-Dimbulah 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				
<b>Routine spend</b>																		
<b>Operations</b>																		
Labour	538.9	593.8	(54.9)	551.0	612.8	(61.8)	506.0	632.4	(126.4)	552.7	648.2	585.0	664.4	602.1	619.6	637.7	656.3	675.4
Contractors	7.2	6.0	1.2	2.9	6.2	(3.3)	9.6	6.3	3.2	2.0	6.5	2.1	6.6	2.1	2.1	2.2	2.3	2.3
Materials	1.9	9.5	(7.6)	6.3	9.8	(3.5)	1.4	10.0	(8.6)	4.0	10.2	4.1	10.5	4.2	4.3	4.4	4.5	4.6
Electricity	477.1	385.7	91.4	507.9	416.6	91.3	497.9	445.7	52.2	587.9	456.9	630.9	468.3	636.6	633.4	654.3	671.3	658.6
Insurance	433.5	296.6	136.9	391.5	301.7	89.8	375.4	306.8	68.6	375.4	314.5	365.3	322.4	373.7	382.3	391.1	400.1	409.3
Other	102.8	74.7	28.1	67.3	76.0	(8.7)	87.8	77.3	10.5	106.7	79.2	107.5	81.2	110.0	112.5	115.1	117.7	120.4
Local area support costs	395.8	-	395.8	473.8	-	473.8	435.2	-	435.2	431.1	-	709.6	-	721.0	739.8	759.1	778.9	799.2
Corporate support costs	213.1	600.2	(387.1)	177.6	589.8	(412.2)	165.4	602.8	(437.4)	258.0	617.8	380.3	633.3	359.7	369.1	378.8	388.6	398.8
Indirect costs	320.0	368.9	(48.8)	297.0	368.7	(71.7)	232.8	321.4	(88.6)	112.8	329.5	210.5	337.7	211.1	216.6	222.2	228.0	234.0
<b>Preventative maintenance</b>																		
Labour	311.7	158.4	153.3	258.1	163.4	94.7	250.8	168.6	82.2	270.5	172.9	303.9	177.2	312.8	321.9	331.3	340.9	350.9
Contractors	110.6	16.4	94.3	91.3	16.9	74.4	104.1	17.2	86.9	90.0	17.6	100.0	18.1	102.4	104.9	107.4	110.0	112.6
Materials	32.6	44.0	(11.4)	24.9	45.4	(20.5)	33.6	46.2	(12.6)	30.0	47.4	30.0	48.5	30.7	31.4	32.1	32.9	33.6
Other	47.8	60.1	(12.3)	28.5	62.0	(33.5)	34.4	63.0	(28.7)	20.8	64.6	20.8	66.2	21.3	21.8	22.3	22.8	23.3
Local area support costs	230.9	-	230.9	221.6	-	221.6	215.7	-	215.7	211.0	-	382.1	-	388.3	398.4	408.8	419.4	430.4
Corporate support costs	114.4	161.0	(46.6)	79.4	158.3	(78.9)	78.8	161.8	(83.0)	121.4	165.9	197.5	170.0	186.9	191.8	196.8	201.9	207.2
Indirect costs	182.0	85.5	96.4	137.6	84.9	52.7	115.4	72.5	42.9	55.2	74.3	109.4	76.2	109.6	112.5	115.4	118.4	121.5
<b>Corrective maintenance</b>																		
Labour	411.5	398.6	12.9	424.5	422.6	1.8	414.4	447.8	(33.4)	527.0	459.0	469.9	470.4	483.6	497.7	512.2	527.1	542.5
Contractors	83.6	32.8	50.9	104.0	33.8	70.2	74.3	34.4	39.9	75.0	35.2	76.9	36.1	78.7	80.6	82.6	84.5	86.6
Materials	328.3	256.6	71.7	303.3	264.9	38.4	335.8	269.4	66.4	303.3	276.1	350.0	283.0	358.1	366.3	374.7	383.3	392.1
Other	65.0	187.4	(122.4)	69.1	193.3	(124.2)	75.5	196.6	(121.1)	98.2	201.5	98.2	206.6	100.4	102.7	105.1	107.5	110.0
Local area support costs	301.5	-	301.5	365.0	-	365.0	355.9	-	355.9	411.1	-	601.5	-	611.1	627.1	643.4	660.2	677.4
Corporate support costs	167.1	414.5	(247.5)	142.7	418.7	(276.1)	140.2	438.6	(298.4)	246.6	449.6	305.4	460.8	289.0	296.5	304.2	312.2	320.3
Indirect costs	246.2	215.3	30.8	227.7	219.5	8.2	190.4	192.5	(2.1)	107.5	197.3	169.1	202.3	169.5	174.0	178.5	183.1	187.9
<b>Routine total</b>	<b>5123.3</b>	<b>4365.9</b>	<b>757.4</b>	<b>4952.8</b>	<b>4465.4</b>	<b>487.4</b>	<b>4730.7</b>	<b>4511.4</b>	<b>219.3</b>	<b>4998.0</b>	<b>4624.2</b>	<b>6209.9</b>	<b>4739.8</b>	<b>6262.8</b>	<b>6407.2</b>	<b>6579.5</b>	<b>6752.0</b>	<b>6898.8</b>
<b>Non-routine spend</b>																		
Labour	158.0	182.1	(24.1)	196.3	229.4	(33.1)	200.9	286.5	(85.7)	154.1	383.8	200.1	130.2	156.1	67.0	83.6	70.7	107.3
Contractors	12.6	666.3	(653.7)	507.5	746.7	(239.2)	175.6	303.3	(127.7)	75.6	1159.6	464.5	393.5	927.2	477.4	308.7	343.0	343.0
Materials	69.5	198.9	(129.4)	50.3	249.2	(198.9)	157.3	303.3	(145.9)	211.3	414.6	440.3	140.7	361.6	128.6	497.0	772.5	653.4
Other	30.7	108.5	(77.7)	15.2	135.6	(120.4)	28.9	165.4	(136.5)	(0.0)	226.4	2.7	76.8	13.9	13.2	4.1	5.2	42.4
Local area support costs	117.5	267.0	(149.5)	166.9	315.1	(148.2)	172.7	347.7	(175.0)	120.2	537.1	209.5	182.3	130.7	56.2	65.4	60.1	91.1
Corporate support costs	60.2	-	60.2	83.0	-	83.0	74.3	-	74.3	79.5	-	130.1	-	129.6	55.6	69.4	58.7	89.0
Indirect costs	95.1	114.1	(19.0)	109.5	136.7	(27.2)	92.4	140.1	(47.6)	31.4	224.0	72.0	76.0	62.5	29.1	34.4	28.1	41.4
<b>Non-routine total</b>	<b>543.7</b>	<b>1536.9</b>	<b>(993.1)</b>	<b>1128.6</b>	<b>1812.7</b>	<b>(684.1)</b>	<b>902.2</b>	<b>1546.3</b>	<b>(644.2)</b>	<b>672.0</b>	<b>2945.5</b>	<b>1519.2</b>	<b>999.6</b>	<b>1227.8</b>	<b>1276.9</b>	<b>1231.4</b>	<b>1303.9</b>	<b>1367.7</b>
<b>Total spend</b>	<b>5667.0</b>	<b>5902.8</b>	<b>(235.8)</b>	<b>6081.4</b>	<b>6278.1</b>	<b>(196.7)</b>	<b>5632.9</b>	<b>6057.7</b>	<b>(424.9)</b>	<b>5670.0</b>	<b>7569.7</b>	<b>7729.2</b>	<b>5739.3</b>	<b>7490.6</b>	<b>7684.1</b>	<b>7810.9</b>	<b>8055.9</b>	<b>8266.5</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 Mareeba-Dimbulah Distribution Service Contract is allocated 8.039 per cent of the forecast total local area support costs. Forecast local overheads in 2018/19 are higher than previous years and now more closely reflect actual local overheads in each region rather than local overheads averaged across SunWater.

## Indirect costs

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

In 2018/19 the Mareeba-Dimbulah Distribution Service Contract is allocated 2.775 per cent of the forecast total indirect costs.

## Corporate support costs

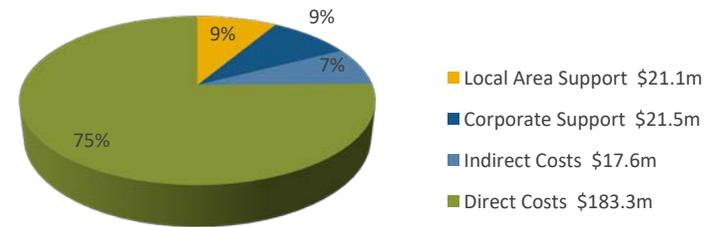
Corporate support costs are more generic than indirect costs and local area support costs, and are spread across all service contacts based on direct labour. They include the cost of human resources and payroll, information and communications technology, corporate communications, legal, property, finance,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

Officer and the SunWater Board, where these costs are not directly charged to activities within service contracts.

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

In 2018/19 the Mareeba-Dimbulah Distribution Service Contract is allocated 4.107 per cent of the forecast total corporate support costs.

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



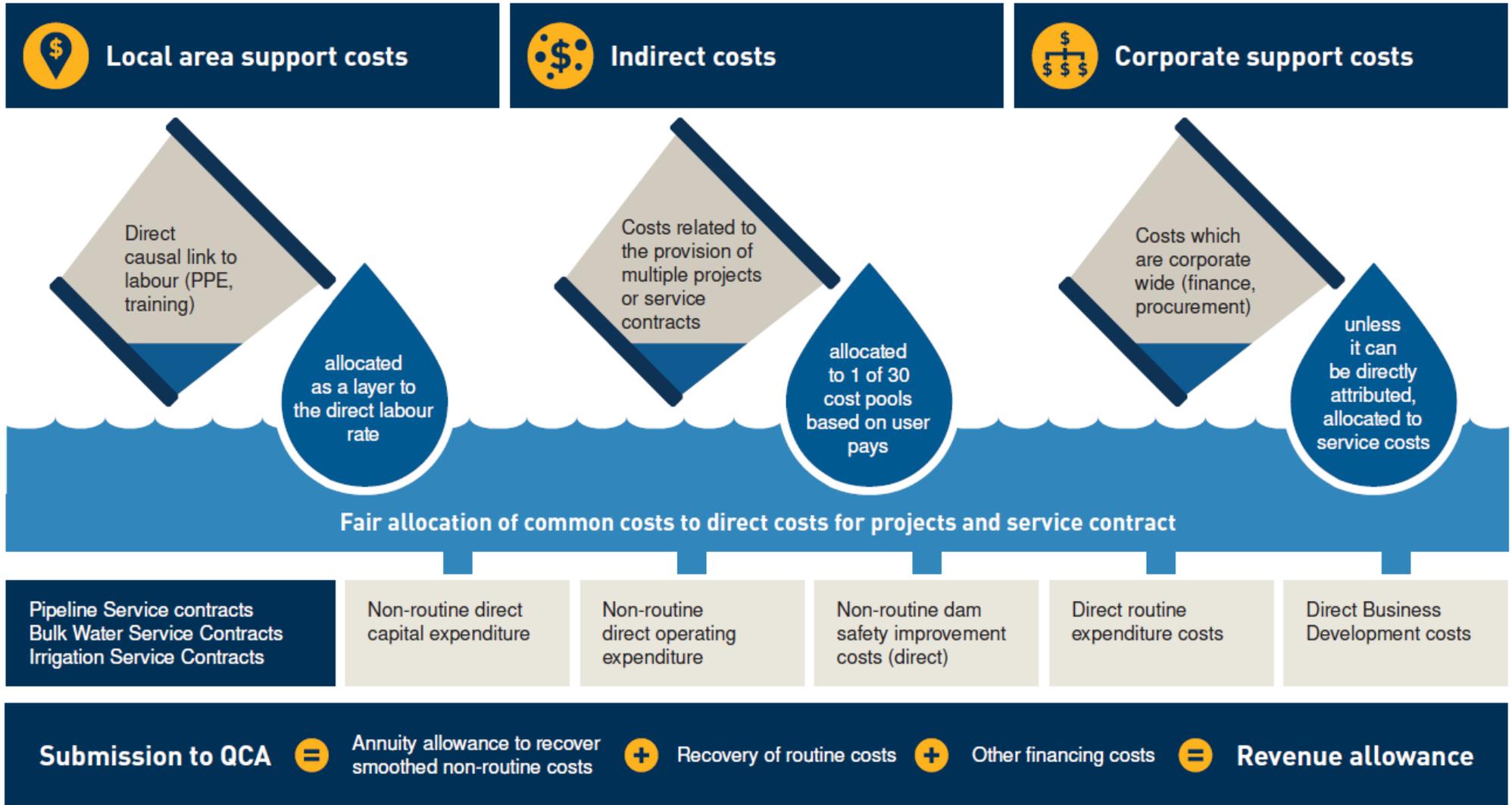
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater’s methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and 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
- maintaining fish screen functions
- 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 Mareeba-Dimbulah 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.), drains (civil works, structures etc.), pipelines (valves, air valves, scours easements etc.) and other infrastructure.

- Servicing — planned maintenance activities carried out routinely on physical assets including valves, cranes, sump pumps and associated equipment.
- Weed control — management of weeds, including:
  - slashing channels and drains
  - Copper Sulphate treatment
  - spraying and other activities to control nuisance and noxious weeds.

### Scheduled corrective maintenance

Scheduled corrective maintenance varies by asset type and typically includes:

- Channels:
  - de-silting channels and associated drainage works
  - erosion control and repairing rock protection works
  - repairing fencing, concrete structures, regulator gates, and control valves.
- Drains:
  - de-silting drains
  - erosion control and repairing rock protection works
  - repairing fencing and concrete structures.
- Pipelines:
  - repairing pipe breaks, air and scour valves and concrete structures
  - erosion control and repairing rock protection works.
- Service Contract roads:
  - maintenance of roads and access tracks.
- Pump stations:
  - repairing pumps, motors, concrete structures and control buildings

- 
- de-silting intake structures.
  - Storages (balancing storages and reservoirs):
    - repairing control gates, valves and concrete structures
    - repairing walls, embankments and spillways.
  - Meters:
    - repairing bulk water meters and customer meters.

### **Emergency corrective maintenance**

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

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

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

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

Year	Work Items	Work Description	Budget (\$'000)
2018/19	Meter replacements	Staged upgrade of 9 Atherton and 2 Biboohra customer meters to improve accuracy, scheme delivery efficiency and comply with Australian Standard (AS) 4747.	244
	Meter replacements	Staged upgrade of 3 West Barron and 3 Atherton customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747 (carried forward from 2017/18).	189
	Mareeba system – Bench flume joint repairs	Bench flume joint repairs based on condition as part of the 30 Year Irrigation Asset Strategy.	212
	Atherton main channel – Refurbish channel regulating gates	Periodic refurbishment of 9 channel regulating gates, in accordance with SunWater's Float Regulating Gate Strategy.	126
	East Barron main channel – Manage overflow risks at splitter box	Carried forward project to manage pipeline overflows when supply rates vary quickly. Project carried forward from 2017/18 to complete site works and commission.	97
	Mareeba system – Copper Sulphate trial and property flow rate investigation	Copper Sulphate research and property design flow rate review projects. Both activities are targeting improved water distribution efficiency at a whole of scheme level.	71
	North Walsh pump station – A & B control system upgrade options analysis	Investigation to identify the most prudent and efficient upgrade/replacement option ahead of capital works. Material project in 2025.	56
	South Walsh, North Walsh, South Edge and Mareeba system channels and Price Creek B pump station – Options analyses	A range of options analyses looking at channel and pipeline sections and slide gate replacements or refurbishments to ensure prudence and efficiency.	72
	Leafgold Weir – Repairs to the weir crest	The weir crest has notable crest defects requiring repair to reinstate full supply and asset condition. Works based on asset condition and previous inspection report.	37

Year	Work Items	Work Description	Budget (\$'000)
	Mareeba main channel and lateral pipelines – Prepare business cases for pipeline replacement works	Works are based on previous maintenance history and whole-of-life analyses that showed the potential to reduce ownership costs through asset replacement. The business cases are to determine the benefits of undertaking the most cost-effective replacement strategies and ultimately support future material works.	33
	Other works	The balance of the 2018/19 program consists of option analyses for future concrete lining replacements, single regulating gate refurbishments and pressure reducing valve replacements, a number of carried forward projects requiring budget to complete in 2018/19 and other minor mechanical works.	382
	<b>2018/19 Total</b>		<b>1519</b>
<b>2019/20</b>	Meter replacements	Staged upgrade of 8 Biboohra customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747.	227
	Mareeba system – Supervisory Control and Data Acquisition (SCADA) upgrade	Enhancement of the channel control system to achieve greater delivery efficiencies and reliability.	104
	South Walsh main channel – Refurbish regulating gates	Periodic refurbishment of 10 regulating gates, in accordance with SunWater’s Float Regulating Gate Strategy.	140
	West Barron main channel – Refurbish bench flume bracing beam	Refurbishment to extend asset life, based on strategy.	78
	Mareeba, South Edge and West Barron – Control equipment replacement	Control equipment replacement based on asset age and condition under the 30 Year Irrigation Asset Strategy. Investigation to identify the most prudent and efficient upgrade/replacement option ahead of capital works. Material project in 2025.	149
	Granite, Dulbil, Collins, Solanum, Bruce and Leafgold Weirs – Five yearly inspections and reports	Works are required to manage ownership risks and support management due diligence through inspection and condition assessments.	88
	West Barron main channel – Replace or refurbish vertical lift gates	Works are based on standard refurbishment periods and condition assessment (2016). Activities involve blasting, painting, seals, guides, anodes and bearing replacements to reinstate asset function and maximise service life.	78
	Mareeba and Biboohra main channel – Replacement/reinstatement of standpipe internal baffles	A number of pipeline standpipe baffles have required replacement in recent years; these works are designed to reinstate leaking internal baffles to ensure correct flow control and minimise water losses.	51

Year	Work Items	Work Description	Budget (\$'000)
	Other works	The balance of the 2019/20 program consists of individual regulating gates refurbishments, fencing repairs, regulating gate control equipment and actuator replacements, safety screen replacements and a small number of pipeline business cases and options analyses.	313
	<b>2019/20 Total</b>		<b>1228</b>
<b>2020/21</b>	Mareeba system – Concrete channel lining works	Concrete lining section/panel replacements are based on the 30 Year Irrigation Asset Strategy. A system-wide strategy and prioritisation schedule is to be determined under an options analysis planned for 2019.	614
	South Walsh main channel – Refurbish regulating gates	Periodic refurbishment of 8 regulating gates, in accordance with SunWater’s Float Regulating Gate Strategy.	104
	West Barron main channel – Refurbish regulating gates	Periodic refurbishment of 5 regulating gates, in accordance with SunWater’s Float Regulating Gate Strategy.	71
	Meter replacements	Staged upgrade of 3 East Barron and Biboohra customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747.	117
	Biboohra and Mareeba main channel – Regulating gate actuator equipment replacement	Replacement by condition/asset life to retain functionality.	61
	Mareeba System – Scheme road refurbishment works	Road refurbishments are based on the 30 Year Irrigation Asset Strategy. Channel and access roads to be regraded and surfaced by priority as part of a 5 yearly funding schedule.	62
	Other works	The balance of the 2020/21 program consists of fencing, regulating gate control equipment replacement and SCADA equipment upgrades.	248
	<b>2020/21 Total</b>		<b>1277</b>
<b>2021/22</b>	Price Creek pump station – Upgrade or replacement of pump station A switchboard, cables and control system	Upgrade or replacement of switchboard, cables and control system. The timing, scope and costing of the works will be subject to an options analysis scheduled for 2020.	296
	Price Creek pump station – Upgrade or replacement of pump station B switchboard, cables and control system	Upgrade or replacement of switchboard, cables and control system. The timing, scope and costing of the works will be subject to an options analysis scheduled for 2020.	210
	Meter replacements	Staged upgrade of 10 East Barron customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747.	258

Year	Work Items	Work Description	Budget (\$'000)
	Price Creek pump station – Refurbish pump B and non-return valves (NRVs)	Refurbishment based on standard refurbishment period to retain serviceability.	116
	West Barron main channel – Refurbish regulating gates	Periodic refurbishment of 11 regulating gates, in accordance with SunWater’s Float Regulating Gate Strategy.	158
	West Barron main channel – Concrete channel lining repairs	Repairs based on the 30 Year Irrigation Asset Strategy. A system-wide strategy and prioritisation schedule is to be determined under an options analysis planned for 2019.	58
	Other works	The balance of the 2021/22 program consists of regulating gate actuators replacements, bench flume deformation survey, regulating gate and trash screen refurbishments.	135
	<b>2021/22 Total</b>		<b>1231</b>
<b>2022/23</b>	Mareeba system – Concrete channel lining repairs	Repairs based on the 30 Year Irrigation Asset Strategy. A system-wide strategy and prioritisation schedule is to be determined under an options analysis planned for 2019.	645
	Meter replacements	Staged upgrade of 10 Mareeba & East Barron customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747.	180
	South Edge and South Walsh main channel – Refurbish regulating gates	Periodic refurbishment of 9 regulating gates, in accordance with SunWater’s Float Regulating Gate Strategy.	147
	Mareeba main channel – Refurbish regulating gates 1 & 2	Refurbish based on asset standard refurbishment period to maintain serviceability.	65
	Mareeba system – SCADA upgrade	Enhancement of the host system to ensure continued hardware, software support and serviceability.	64
	Mareeba channel – Options analyses	Works are based on preparing pipeline options analyses to confirm the most prudent and efficient whole-of-life management of the pipeline sections and identify the scope, timing and costing of replacement or refurbishment strategies.	27
	Other works	The balance of the 2022/23 program consists of bench flume bracing beam works, air valve/vent and gate refurbishments, and minor metal works.	176
	<b>2022/23 Total</b>		<b>1304</b>

Year	Work Items	Work Description	Budget (\$'000)
2023/24	Paddy's Green – Replacement of pump station A pumps, pressure reducing valves (PRVs) and NRVs	Works involve the replacement of 3 pumps, PRVs and NRVs based on standard replacement periods. Project scheduling, scope and costings will be subject to an options analysis scheduled for 2018/19. The objectives of the work are to reinstate as-new function and service life of major pumping assets at the station.	756
	Meter replacements	Staged upgrade of 6 Mareeba distribution system customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747.	179
	Meter replacements	Staged upgrade of 5 Mareeba distribution system customer meters to improve accuracy, scheme delivery efficiency and comply with AS4747.	139
	South Walsh main channel – Refurbish regulating gates	Periodic refurbishment of 5 regulating gates, in accordance with SunWater's Float Regulating Gate Strategy.	92
	West Barron – Refurbish regulating gates	Periodic refurbishment of 2 regulating gates, in accordance with SunWater's Float Regulating Gate Strategy.	37
	Mareeba System – Refurbish regulating gates	Periodic refurbishment of 2 regulating gates, in accordance with SunWater's Float Regulating Gate Strategy.	37
	Other works	The balance of the 2023/24 program consists of regulating gate refurbishments and control equipment replacements, air vent and valve works, pump motor and valve refurbishments, and a system wide control equipment options analysis.	128
	<b>2023/24 Total</b>		<b>1368</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)

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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

## Mareeba-Dimbulah 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 Mareeba-Dimbulah Distribution Service Contract in July 2018. We have therefore prepared this addendum to aid our customers' understanding of the changes and to assist the Queensland Competition Authority (QCA) in their review.

We have:

- updated for 2017/18 actual expenditure. This has positively impacted the annuity balances for this service contract going forward, when compared to the 2019 Network Service Plan.
- revised market parameters, such as escalators and the Weighted Average Cost of Capital, for the latest available information
- used the scheme's 15-year average water usage over the 2002/03 to 2016/17 period to determine the Part D cost per megalitre.

Note:

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

**Table 1: Irrigation charges for 2018/19<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)
<b>Medium Priority Allocation Charge – Channel Distribution</b>	Channel Distribution – Part C (fixed charge based upon entitlement)	50.56	47.06	N/A
<b>Medium Priority Allocation Water – Channel Distribution</b>	Channel Distribution – Part D (variable charge based upon usage)	8.07	11.59	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				
Electricity	497.9	445.7	52.2	543.2	456.9	630.9	468.3	594.2	580.6	601.0	654.1	649.9
Insurance	375.4	306.8	68.6	348.1	314.5	365.3	322.4	372.8	381.3	390.1	399.1	408.3
Operations	1438.2	1650.2	(211.9)	2175.2	1691.4	1999.0	1733.7	2006.8	2059.2	2112.9	2166.9	2222.3
<b>Operations Total</b>	<b>2311.6</b>	<b>2402.7</b>	<b>(91.1)</b>	<b>3066.5</b>	<b>2462.8</b>	<b>2995.2</b>	<b>2524.4</b>	<b>2973.8</b>	<b>3021.2</b>	<b>3104.0</b>	<b>3220.1</b>	<b>3280.5</b>
Preventative maintenance	832.7	529.4	303.3	925.3	542.6	1143.7	556.2	1150.0	1179.8	1210.4	1241.1	1272.6
Corrective maintenance	1586.4	1579.3	7.2	1507.0	1618.7	2071.0	1659.2	2086.6	2139.8	2194.3	2249.2	2305.5
<b>Routine Total</b>	<b>4730.7</b>	<b>4511.4</b>	<b>219.3</b>	<b>5498.8</b>	<b>4624.2</b>	<b>6209.9</b>	<b>4739.8</b>	<b>6210.4</b>	<b>6340.7</b>	<b>6508.7</b>	<b>6710.5</b>	<b>6858.6</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>	4015.7	5585.4	7659.6	8995.1	11,808.7	13,150.8	14,691.8	17,181.3
Spend	(902.2)	(569.6)	(1519.2)	(1227.8)	(1276.9)	(1231.4)	(1303.9)	(1367.7)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>2</sup>	2171.1	2225.4	2281.0	2332.4	1928.6	2003.5	2934.4	2978.3
Interest/financing costs	300.8	418.3	573.7	673.7	690.4	768.9	859.0	1004.6
<b>SunWater – Closing balance</b>	<b>5585.4</b>	<b>7659.6</b>	<b>8995.1</b>	<b>10,773.4</b>	<b>13,150.8</b>	<b>14,691.8</b>	<b>17,181.3</b>	<b>19,796.5</b>
<b>QCA – Closing balance</b>	<b>3214.8</b>	<b>2735.5</b>	<b>4221.8</b>					
Difference	2370.6	4924.2	4773.3					

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	9
Annuity income difference	588
Intersafe project spend adjustment	(10)
Interest difference	(6)
Alignment to previously reported data	0
Interest	454
<b>Total</b>	<b>1035</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	6209.9	6210.4	6340.7	6508.7	6710.5	6858.6
Non-routine costs (Annuity contribution)	2281.0	2332.4	1928.6	2003.5	2934.4	2978.3
Dam improvement program	-	-	-	-	-	-
Working capital	5.3	5.3	-	-	-	-
Revenue offsets	(646.6)	(662.7)	(679.3)	(696.3)	(713.7)	(731.5)
Transfers (Distribution losses)	474.4	470.9	647.8	663.8	679.0	694.2
<b>Total costs</b>	<b>8324.1</b>	<b>8356.3</b>	<b>8237.8</b>	<b>8479.7</b>	<b>9610.2</b>	<b>9799.6</b>
<b>Notional cost allocations</b>						
Irrigation customers	7898.0	7926.9	7815.0	8044.6	9113.8	9292.8
Urban/Industrial customers	426.1	429.4	422.8	435.1	496.4	506.8
SunWater	-	-	-	-	-	-
<b>Total costs</b>	<b>8324.1</b>	<b>8356.3</b>	<b>8237.8</b>	<b>8479.7</b>	<b>9610.2</b>	<b>9799.6</b>

**Table 6: Historical actual water usage**

<b>Year</b>	<b>Usage (ML)</b>
2002/03	171,899
2003/04	106,318
2004/05	127,508
2005/06	96,028
2006/07	125,025
2007/08	110,200
2008/09	109,972
2009/10	136,291
2010/11	93,971
2011/12	117,164
2012/13	145,206
2013/14	110,158
2014/15	148,111
2015/16	154,442
2016/17	132,084
<b>15-year average</b>	<b>125,625</b>