

2018/19 to 2023/24 Network Service Plan

# Eton Bulk Water 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 Eton

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

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

Our focus during the 2018/19 to 2023/24 NSP period will be on continuing to ensure dam safety compliance is maintained and any refurbishment and corrective work identified through our regular inspection regime is completed. Major works in 2018/19 are scheduled to improve safety and reliability of the dam. A reverse filter on the toe of the dam and drainage works in the borrow pits constitute the majority of these works.

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.



**Robert Lewis**  
General Manager Central

# 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 Kinchant Dam Water Users Association on the draft NSP and feedback from the Association 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 customers in this Service Contract are irrigators of sugar cane.

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

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

Customer Segment	Total Water Entitlements (ML)	High-A Priority Water Entitlements (ML)	High-B Priority Water Entitlements (ML)	Risk Priority Water Entitlements (ML)	Water Deliveries 2016/17 (ML)
Irrigation	1173	0	669	504	116
Industrial	100	0	100	0	0
SunWater (excluding distribution loss)	5	0	5	0	1
SunWater distribution loss	9384	3089	6295	0	0
Other	1	0	1	0	0
<b>Total</b>	<b>10,663</b>	<b>3089</b>	<b>7070</b>	<b>504</b>	<b>117</b>

1. Bulk water only. Excludes deliveries to the Eton distribution system.

The 2018/19 charges and cost per megalitre are shown in Table 2 below. The Eton Bulk Water Service Contract does not 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		2018/19 (\$/ML)	Cost (\$/ML) <sup>2,3</sup>	Subsidy (\$/ML)
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	30.59	27.54	N/A
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	3.95	24.88	20.93

1. This table includes bulk water charges only. For distribution charges (Part C and Part D) please refer to the Distribution Service Contract NSP.
2. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
3. The notional High Priority Allocation Charge cost per megalitre is \$88.24. Includes a cost allocation to 700 ML High-A Priority water for Pioneer customers that use Eton bulk assets.

## 2.2 Service targets

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

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

The unplanned shutdown events that exceeded the target were a result of the Operations team taking advantage of weather conditions to perform desilting on balancing storages and channel maintenance. There was no interruption to supply as there was nil demand when the works occurred.

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 5 days	3 weeks	0
	For shutdowns planned to be less than 3 days	2 days	0
Unplanned shutdowns – duration <sup>1</sup>	Unplanned shutdowns during Peak Demand Period	72 hours	2
	Unplanned shutdowns outside Peak Demand Period	5 working days	
Maximum number of interruptions <sup>2</sup>	Planned or unplanned interruptions per water year	10	0

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.

## 2.3 Key infrastructure

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

**Table 4: Key infrastructure**

<b>Asset</b>	<b>Description</b>	<b>Capacity</b>
<b>Kinchant Dam</b>	Earth and rock fill embankment with an uncontrolled concrete ogee crest spillway. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	62,800 ML
<b>Mirani Diversion pump station 1</b>	2 submersible pumps	720 ML/day
<b>Mirani Diversion pump station 3</b>	5 submersible pumps	
<b>Mirani diversion channel</b>		860 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 Eton Bulk Water Service Contract is presented in Table 5.

The revenue SunWater receives from urban and industrial customers is agreed by term contract. The revenue we receive from irrigation customers is determined by the Queensland Government based on recommendations made by the Queensland Competition Authority (QCA) as part of its review of irrigation charges and is intended to allow SunWater to recover its prudent and efficient costs of operating the Service Contract.

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

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

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

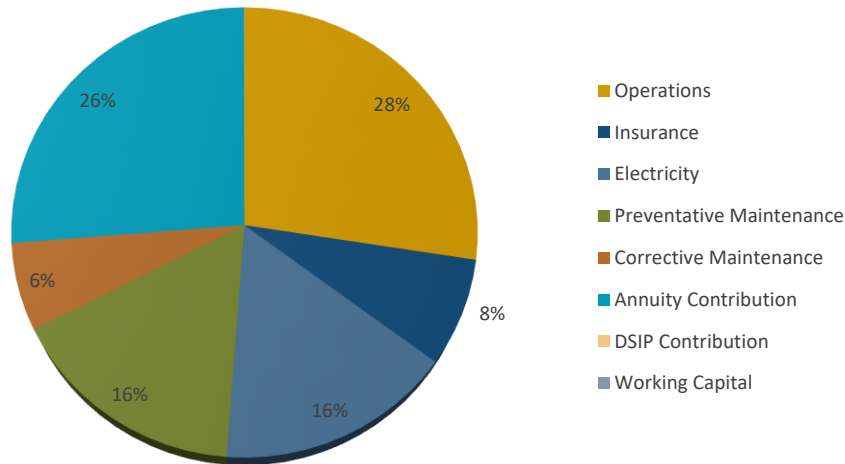
**Table 5: Service contract financial summary<sup>1</sup>**

Eton Service Contract	2014/15 Actual \$'000	2015/16 Actual \$'000	2016/17 Actual \$'000	2017/18 Estimate \$'000	2018/19 Forecast \$'000
Revenue					
Irrigation	(390.4)	(157.9)	391.4	276.8	56.3
Community Service Obligation	-	-	-	-	-
Industrial <sup>2</sup>	0.8	0.8	-	-	-
Urban <sup>2</sup>	0.4	0.4	0.4	0.4	0.4
Revenue transfers <sup>3</sup>	1510.0	1534.7	1468.8	2213.7	2264.5
Drainage	-	-	-	-	-
Other	2142.5	38.2	-	-	-
Insurance proceeds – flood	-	-	-	-	-
<b>Revenue Total</b>	<b>3263.2</b>	<b>1416.1</b>	<b>1860.7</b>	<b>2490.8</b>	<b>2321.4</b>
Less – Routine expenditure	(1394.8)	(1890.9)	(1160.8)	(1652.7)	(1841.4)
Less – Non-routine expenditure					
Annuity funded	(80.8)	(373.1)	(1181.8)	(1166.1)	(1356.9)
Non annuity funded <sup>4</sup>	(2023.0)	-	5.5	-	-
<b>Surplus (deficit)</b>	<b>(235.3)</b>	<b>(847.9)</b>	<b>(476.4)</b>	<b>(328.0)</b>	<b>(877.2)</b>

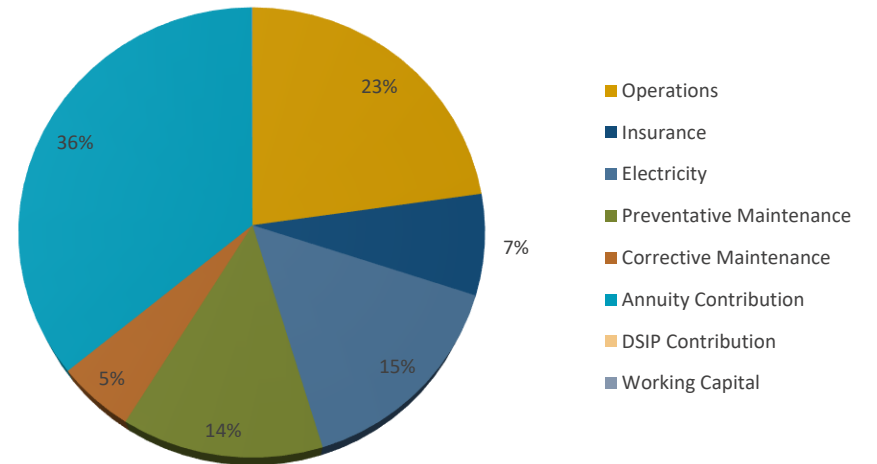
1. Totals may not add due to rounding.
2. Forecast revenues for industrial and urban customers are based on current contractual arrangements.
3. Revenue transfers represent the cost of bulk water supplies delivered through the distribution system(s). The revenue accrues to the distribution system before 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. This is expenditure which has not been funded by irrigation customers. An example of this in the Eton Bulk Water Service Contract is the dam improvement program (DIP).

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

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



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





## 4. Cost of delivering services – routine expenditure

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

SunWater has budgeted an increase in Eton Bulk Water Service Contract’s routine operating expenditure in 2018/19. This expenditure is broadly in line with the QCA’s recommended costs (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 1.32 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>**

Eton 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	151.5	305.3	(153.8)	344.0	312.9	400.0	320.7	426.4	424.3	438.3	449.7	441.1
Insurance	198.7	83.5	115.2	198.7	85.6	192.7	87.8	197.1	201.6	206.3	211.0	215.9
Operations	423.4	483.5	(60.1)	627.5	495.5	685.5	507.9	615.1	631.3	647.8	664.9	682.3
<b>Operations Total</b>	<b>773.6</b>	<b>872.3</b>	<b>(98.7)</b>	<b>1170.2</b>	<b>894.1</b>	<b>1278.2</b>	<b>916.4</b>	<b>1238.6</b>	<b>1257.1</b>	<b>1292.4</b>	<b>1325.5</b>	<b>1339.3</b>
Preventative maintenance	319.7	462.8	(143.1)	332.9	474.4	407.0	486.3	366.1	375.6	385.3	395.3	405.5
Corrective maintenance	67.5	323.9	(256.4)	149.7	332.0	156.3	340.3	141.3	144.8	148.4	152.1	156.0
<b>Routine Total</b>	<b>1160.8</b>	<b>1659.0</b>	<b>(498.3)</b>	<b>1652.7</b>	<b>1700.5</b>	<b>1841.4</b>	<b>1743.0</b>	<b>1746.0</b>	<b>1777.6</b>	<b>1826.1</b>	<b>1873.0</b>	<b>1900.8</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

Eton Bulk Water Service Contract's total operations budget in 2018/19 is 39.48 per cent above the QCA's recommended costs (adjusted for inflation). This variance is driven by a number of factors including higher than projected electricity and insurance costs, and the ongoing implementation costs of the Inspector-General Emergency Management (IGEM) Review recommendations. For further detail on what is included in operations expenditure, refer to **Appendix 3**.

### Electricity

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

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

### Insurance

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

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

## 4.2 Preventative maintenance

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

Preventative maintenance is cyclical in nature with a typical interval of 12 months or less, however, the intervals can be longer. Eton Bulk Water Service Contract's preventative maintenance for 2018/19 is budgeted to be 16.31 per cent below the QCA's recommended costs (adjusted for inflation). This variance is driven by lower labour costs and associated overheads.

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

## 4.3 Corrective maintenance

Corrective maintenance is identified in several ways including:

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

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

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

Eton Bulk Water Service Contract's corrective maintenance for 2018/19 is budgeted to be 54.08 per cent below the QCA's recommended costs (adjusted for inflation). This is in line with historical expenditure.

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### 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.

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

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

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

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

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

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

Table 7 sets out our non-routine annuity and non-annuity funded expenditure. SunWater plans to construct a reverse filter along the toe of Kinchant Dam to address persistent sand boils in 2018/19 (approximately \$729,000). We also refurbished pumps at Mirani Weir in 2016/17 (approximately \$585,000). These projects were not included in the QCA’s recommended allowances.

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>**

Eton 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	45.5	-	45.5	9.1	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	46.3	-	46.3	-	-	79.8	-	-	-	-	-	-
Renewals	1090.0	567.6	522.4	1157.0	1110.6	1277.1	290.0	921.8	641.6	467.8	445.4	517.2
<b>Non-routine total</b>	<b>1181.8</b>	<b>567.6</b>	<b>614.2</b>	<b>1166.1</b>	<b>1110.6</b>	<b>1356.9</b>	<b>290.0</b>	<b>921.8</b>	<b>641.6</b>	<b>467.8</b>	<b>445.4</b>	<b>517.2</b>
<b>Non annuity funded</b>												
<b>Other</b>	<b>(5.5)</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.

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

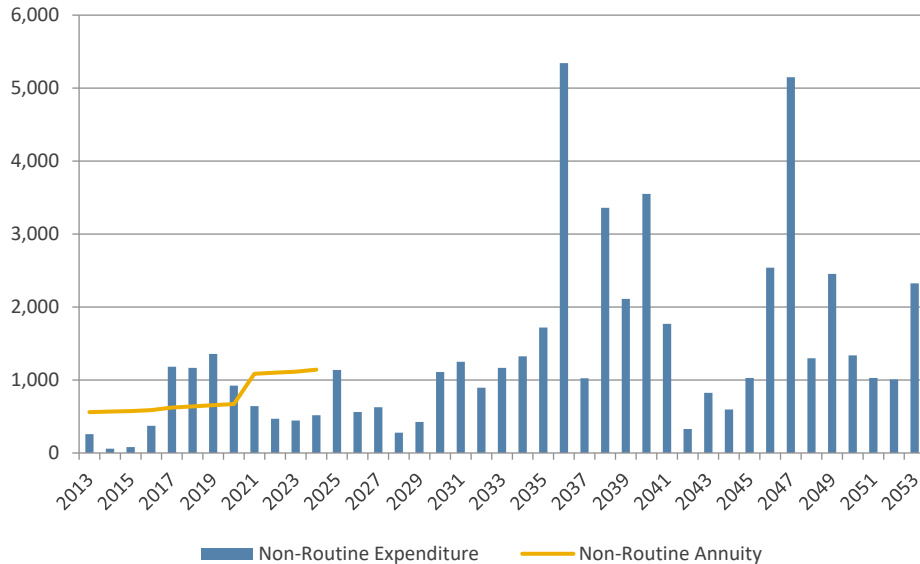
Eton Service Contract	2016/17 Actual \$'000	2017/18 Estimate \$'000	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
<b>Annuity</b>								
Opening balance <sup>2</sup>	(1179.0)	(1826.0)	(2490.3)	(3379.2)	(2963.4)	(2691.5)	(2215.4)	(1674.7)
Spend	(1181.8)	(1166.1)	(1356.9)	(921.8)	(641.6)	(467.8)	(445.4)	(517.2)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	623.0	638.6	654.6	670.9	1085.0	1099.7	1114.3	1142.0
Interest/financing costs	(88.3)	(136.8)	(186.5)	(253.1)	(171.5)	(155.8)	(128.2)	(96.9)
<b>SunWater – Closing Balance</b>	<b>(1826.0)</b>	<b>(2490.3)</b>	<b>(3379.2)</b>	<b>(3883.2)</b>	<b>(2691.5)</b>	<b>(2215.4)</b>	<b>(1674.7)</b>	<b>(1146.9)</b>
<b>QCA – Closing Balance</b>	<b>(1253.4)</b>	<b>(1819.3)</b>	<b>(1591.0)</b>					
Difference	(572.6)	(671.0)	(1788.2)					

- Totals may not add due to rounding.
- 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.
- 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 Kinchant Dam Water Users Association 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.

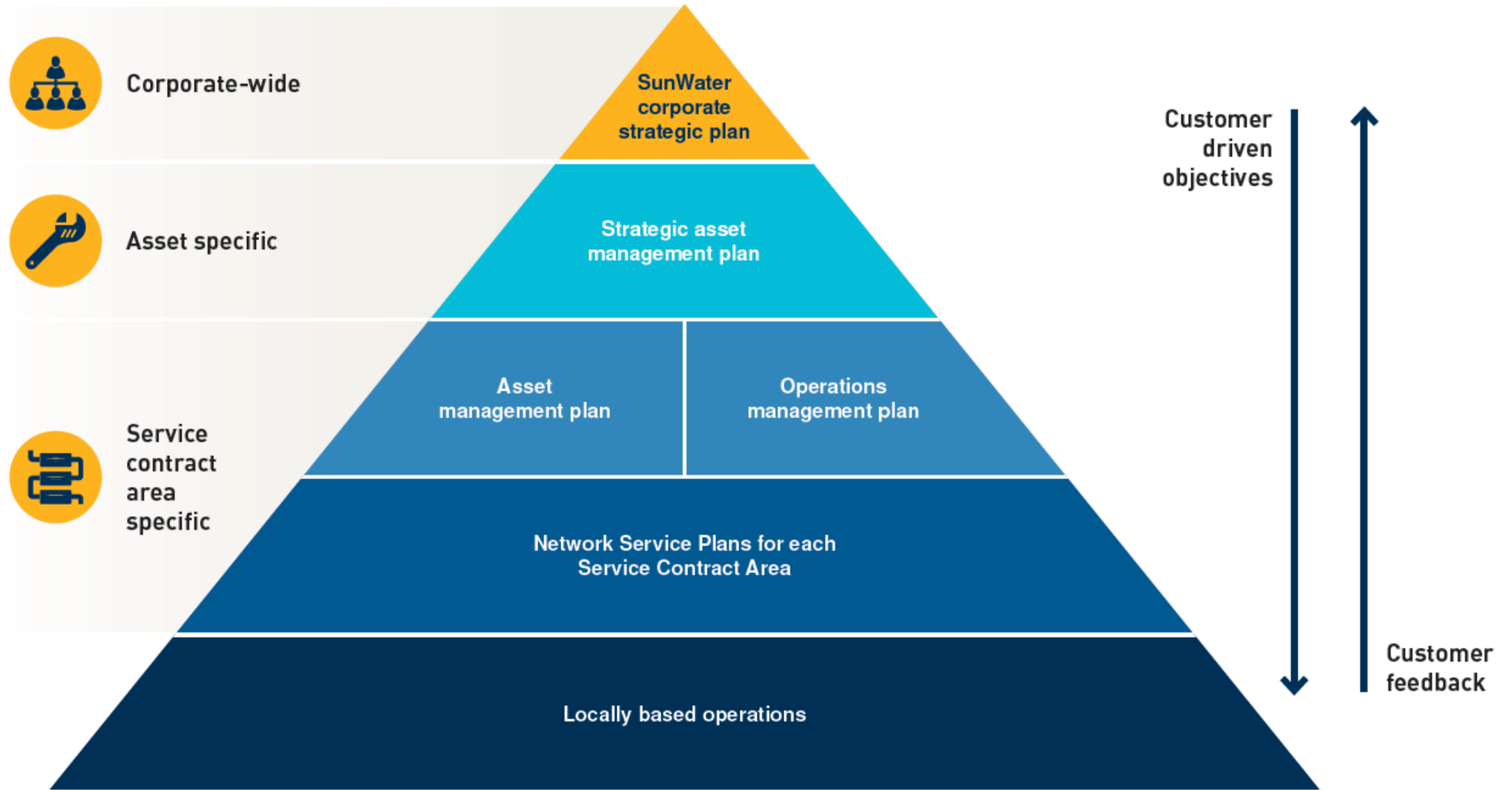
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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>

Eton 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	134.5	132.8	1.7	122.2	137.0	(14.9)	86.8	141.4	(54.6)	160.9	145.0	123.0	148.6	112.7	116.0	119.4	122.8	126.4
Contractors	95.4	24.6	70.8	69.5	25.4	44.1	94.3	25.8	68.5	45.0	26.4	35.0	27.1	31.9	32.7	33.4	34.2	35.1
Materials	6.7	6.0	0.7	2.0	6.2	(4.2)	1.8	6.3	(4.5)	10.0	6.5	12.0	6.6	10.9	11.2	11.4	11.7	12.0
Electricity	307.4	264.2	43.2	723.0	285.3	437.7	151.5	305.3	(153.8)	344.0	312.9	400.0	320.7	426.4	424.3	438.3	449.7	441.1
Insurance	171.5	80.7	90.8	155.7	82.1	73.6	198.7	83.5	115.2	198.7	85.6	192.7	87.8	197.1	201.6	206.3	211.0	215.9
Other	76.5	29.3	47.2	39.7	29.8	9.8	33.8	30.4	3.4	65.0	31.1	47.0	31.9	42.8	43.8	44.8	45.8	46.8
Local area support costs	99.1	-	99.1	105.1	-	105.1	74.7	-	74.7	125.5	-	147.1	-	132.8	136.3	139.9	143.5	147.2
Corporate support costs	64.2	137.1	(72.9)	47.5	134.9	(87.3)	40.7	137.9	(97.1)	83.9	141.3	79.9	144.8	66.6	68.3	70.1	72.0	73.8
Indirect costs	102.4	154.8	(52.4)	133.0	148.6	(15.6)	91.2	141.7	(50.5)	137.2	145.3	241.5	148.9	217.4	223.1	228.9	234.8	241.0
<b>Preventative maintenance</b>																		
Labour	55.3	109.2	(53.9)	76.2	112.7	(36.5)	74.5	116.3	(41.9)	64.3	119.2	74.4	122.2	68.2	70.2	72.2	74.3	76.5
Contractors	85.5	101.0	(15.5)	104.1	104.3	(0.2)	99.7	106.0	(6.3)	135.0	108.7	120.0	111.4	109.3	112.0	114.7	117.4	120.3
Materials	2.1	8.7	(6.6)	3.2	9.0	(5.9)	5.9	9.2	(3.2)	8.0	9.4	8.0	9.6	7.3	7.4	7.6	7.8	8.0
Other	2.9	10.9	(8.0)	6.3	11.3	(5.0)	4.9	11.5	(6.5)	20.0	11.7	18.0	12.0	16.4	16.8	17.1	17.5	17.9
Local area support costs	41.5	-	41.5	65.5	-	65.5	64.0	-	64.0	50.2	-	94.2	-	85.1	87.3	89.6	91.9	94.3
Corporate support costs	23.5	113.0	(89.6)	27.0	111.3	(84.3)	26.4	113.7	(87.4)	35.3	116.6	48.4	119.5	40.3	41.3	42.4	43.5	44.7
Indirect costs	41.8	116.1	(74.2)	71.0	110.1	(39.1)	44.3	106.1	(61.9)	20.1	108.8	44.0	111.5	39.6	40.6	41.7	42.8	43.9
<b>Corrective maintenance</b>																		
Labour	5.4	66.6	(61.2)	16.7	68.7	(52.0)	6.2	70.9	(64.7)	9.0	72.7	17.4	74.5	15.9	16.4	16.9	17.4	17.9
Contractors	64.5	44.8	19.8	80.1	46.2	33.9	44.3	47.0	(2.7)	100.0	48.2	70.0	49.4	63.8	65.3	66.9	68.5	70.1
Materials	0.2	26.6	(26.5)	0.2	27.5	(27.3)	2.3	28.0	(25.7)	8.0	28.7	8.0	29.4	7.3	7.4	7.6	7.8	8.0
Other	1.1	39.8	(38.7)	1.8	41.1	(39.3)	1.4	41.8	(40.3)	13.0	42.8	17.0	43.9	15.5	15.8	16.2	16.6	16.9
Local area support costs	3.8	-	3.8	14.4	-	14.4	5.4	-	5.4	7.0	-	22.3	-	20.1	20.6	21.2	21.7	22.3
Corporate support costs	5.2	71.0	(65.7)	8.6	70.0	(61.3)	4.1	71.5	(67.4)	9.9	73.3	11.3	75.1	9.4	9.7	9.9	10.2	10.4
Indirect costs	4.2	70.8	(66.6)	18.2	67.2	(48.9)	3.7	64.7	(61.0)	2.8	66.4	10.3	68.0	9.3	9.5	9.7	10.0	10.3
<b>Routine total</b>	<b>1394.8</b>	<b>1608.0</b>	<b>(213.2)</b>	<b>1890.9</b>	<b>1628.7</b>	<b>262.2</b>	<b>1160.8</b>	<b>1659.0</b>	<b>(498.3)</b>	<b>1652.7</b>	<b>1700.5</b>	<b>1841.4</b>	<b>1743.0</b>	<b>1746.0</b>	<b>1777.6</b>	<b>1826.1</b>	<b>1873.0</b>	<b>1900.8</b>
<b>Non-routine spend</b>																		
Labour	22.7	67.8	(45.1)	65.9	92.9	(27.0)	161.0	66.2	94.8	209.0	158.7	122.7	41.4	130.7	74.8	89.2	82.9	89.8
Contractors	10.8	68.1	(57.3)	169.8	108.1	61.7	679.4	53.9	625.4	571.9	180.0	707.8	47.0	425.3	234.7	80.6	149.1	144.9
Materials	2.9	67.2	(64.3)	1.5	101.7	(100.1)	0.8	262.4	(261.5)	25.0	290.2	87.9	75.8	52.8	54.0	69.8	28.0	59.3
Other	0.9	37.2	(36.3)	2.2	61.0	(58.9)	29.2	26.0	3.2	13.0	97.7	177.0	25.5	30.9	114.2	35.7	11.5	30.3
Local area support costs	19.2	87.3	(68.1)	56.7	116.1	(59.4)	136.8	90.5	46.3	163.1	204.9	109.3	53.5	102.3	57.8	68.6	61.0	68.7
Corporate support costs	7.7	-	7.7	27.1	-	27.1	80.0	-	80.0	118.8	-	79.7	-	108.5	62.1	74.1	68.8	74.5
Indirect costs	16.5	83.2	(66.6)	49.9	104.3	(54.4)	94.6	68.6	26.0	65.3	179.1	72.5	46.8	71.3	44.0	49.9	44.2	49.7
<b>Non-routine total</b>	<b>80.8</b>	<b>410.7</b>	<b>(330.0)</b>	<b>373.1</b>	<b>584.1</b>	<b>(211.0)</b>	<b>1181.8</b>	<b>567.6</b>	<b>614.2</b>	<b>1166.1</b>	<b>1110.6</b>	<b>1356.9</b>	<b>290.0</b>	<b>921.8</b>	<b>641.6</b>	<b>467.8</b>	<b>445.4</b>	<b>517.2</b>
<b>Total spend</b>	<b>1475.5</b>	<b>2018.7</b>	<b>(543.2)</b>	<b>2264.0</b>	<b>2212.8</b>	<b>51.2</b>	<b>2342.5</b>	<b>2226.6</b>	<b>115.9</b>	<b>2818.9</b>	<b>2811.1</b>	<b>3198.4</b>	<b>2033.0</b>	<b>2667.8</b>	<b>2419.2</b>	<b>2293.9</b>	<b>2318.4</b>	<b>2418.0</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 Eton Bulk Water Service Contract is allocated 1.251 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 Eton Bulk Water Service Contract is allocated 1.679 per cent of the forecast total indirect costs. Increases in indirect costs allocated to Operations are largely driven by new IGEM costs, which are \$141,000 in 2018/19 for this Service Contract.

## Corporate support costs

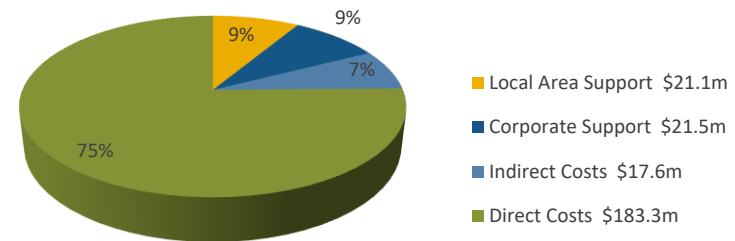
Corporate support costs are more generic than indirect costs and local area support costs, and are spread across all service contacts based on direct labour. They include the cost of human resources and payroll, information and communications technology, corporate communications, legal, property, finance, 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 Eton Bulk Water Service Contract is allocated 0.649 per cent of the forecast total corporate support costs.

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



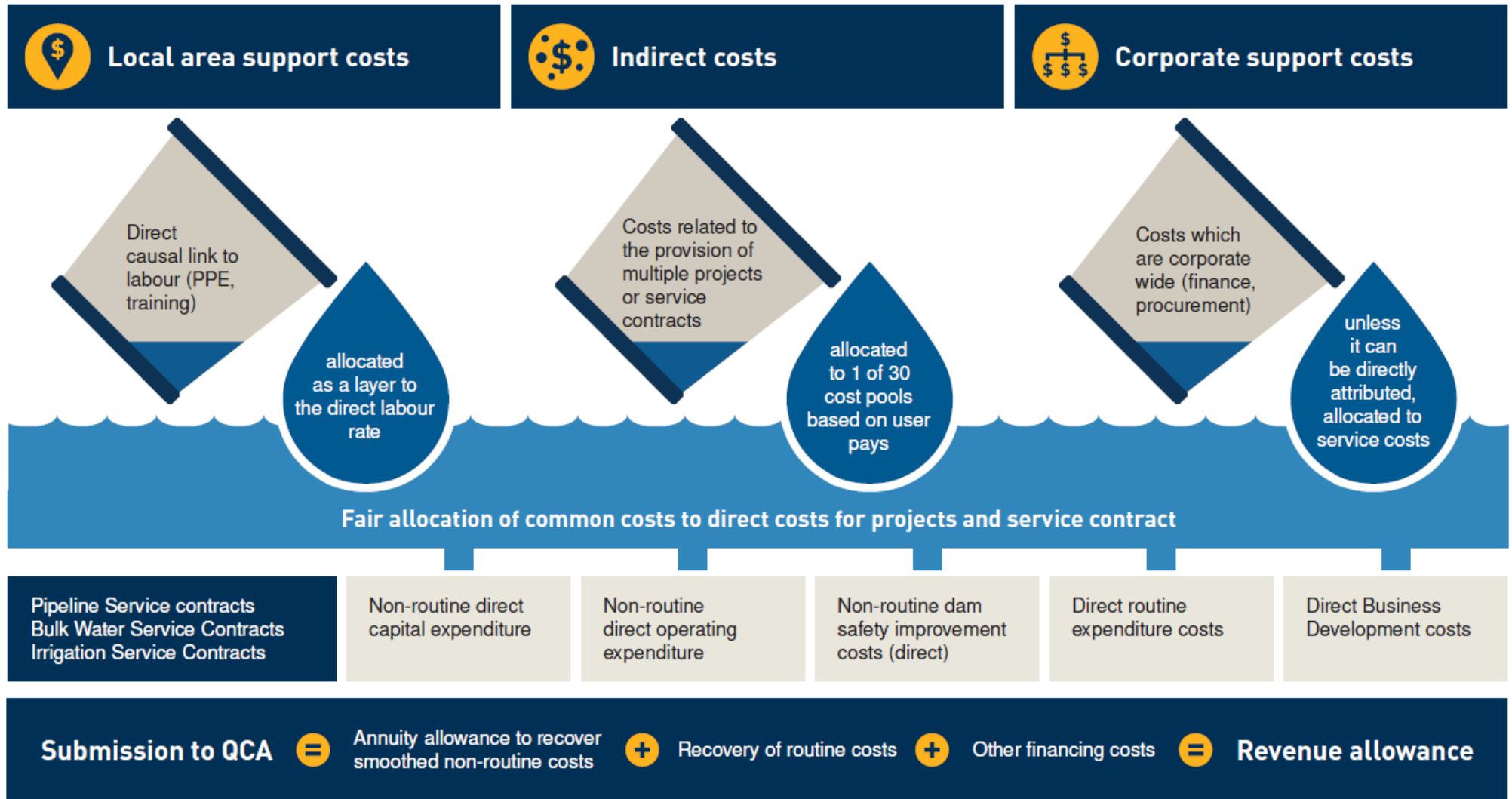
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater's methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and 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 Action Plans and seasonal event responses
- meter reading
- administration of water accounts, billing and receipting payments
- customer management, including enquiries, complaints and maintaining the customer service help desk
- Service Contract management, including licences and permits, rates, land management, planning and reporting
- insurance
- monitoring the security of infrastructure and unauthorised access
- managing engagement associated with the Service Contract
- managing enquiries from adjoining landholders and developers that require input from and negotiations with SunWater’s property and legal sections
- daily dam inspections and other surveillance activities.

### Preventative maintenance

Preventative maintenance for the Eton Bulk Water Service Contract includes:

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

### Scheduled corrective maintenance

Scheduled corrective maintenance varies by asset type and typically includes minor corrective works on:

- Channels:
  - de-silting channels and catch drains
  - 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:
  - repairing pot holes and grading roads
  - repairing, replacing, and painting guide posts and signs.

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

### **Emergency corrective maintenance**

Emergency corrective maintenance typically includes restoring systems and equipment after faults or unplanned events, and responding to theft or vandalism associated with Service Contract assets.

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

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

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

Year	Project Title	Project Scope	Budget (\$'000)
2018/19	Kinchant Dam – Construct reverse filter	A risk assessment determined that constructing a reverse filter along the toe of Kinchant Dam is the optimum method of controlling persistent boils. The boils appear as pressure builds beneath the dam. The filter will help reduce the pressure build up.	729
	Kinchant Dam – Refurbish borrow pits	The main borrow pit embankment is an un-engineered homogenous mass of earth that is uncompacted, with increased seepage. The full scope is not fully known; however, it is believed that reducing the storage level and allowing for overflows via a drainage network will reduce the risks associated with the embankment.	201
	Kinchant Dam – Refurbish berm drain inlets	Scouring has occurred around numerous berm drain inlets such that they have reduced functional capacity. Replacing the earth and enhancing the rock protection will overcome this.	80
	Kinchant Dam – Boundary fencing upgrades	Upgrade fencing along Leichardt Road to stop vehicular access onto the embankment wall.	68
	Mirani 3 pump station – Radio repeater reinstatement (Stage 1)	The radio repeater for Mirani 3 pump station needs to be removed and relocated as Council is decommissioning the tower on which it is currently positioned. This is the first phase to locate a suitable site. It will need engineering input to determine the optimum location.	67
	Other works	There are 4 other non-routine projects for 2018/19.	212
	<b>2018/19 Total</b>		<b>1357</b>
2019/20	Mirani 3 pump station – Radio repeater reinstatement (Stage 2)	This the second stage to relocate the repeater station to the chosen site from the 2018/19 investigation.	61
	Kinchant Dam – Boundary fencing upgrades (Stage 1)	Operators have identified numerous sections of fence between the Mirani channel and neighbouring properties that have failed or are damaged. This project is to reinstate the fencing.	262

Year	Project Title	Project Scope	Budget (\$'000)
	Kinchant Dam inlet tower – Tower strengthening (Stage 1)	The comprehensive risk assessment of the dam identified that the inlet tower may not withstand earthquake loads that could occur in the area. This study is to look at options for strengthening the tower.	61
	Kinchant Dam – Regulating valve No.2 refurbishment	The 2012 comprehensive inspection recommended the replacement of the valve seals and actuator. Patch painting will also be done to remove any corrosion. The work has not happened until now as successive inspections recommended that the work could be deferred; however, it cannot be deferred any longer.	80
	Kinchant Dam – Guard valve refurbishments x2	Similarly for the regulating valve, the two guard valves need the seals and actuator replaced.	119
	Other works	There are 13 other non-routine projects for 2019/20.	339
	<b>2019/20 Total</b>		<b>922</b>
<b>2020/21</b>	Kinchant Dam inlet tower – Tower strengthening (Stage 2)	The comprehensive risk assessment of the dam identified that the inlet tower may not withstand earthquake loads that could occur in the area. This is Stage 2 to design, specify and commence procurement for the on-ground work.	95
	Kinchant Dam – Boundary fencing upgrades (Stage 2)	Operators have identified numerous sections of fence between the Mirani channel and neighbouring properties that have failed or are damaged. This is the next phase of the project to reinstate the fencing.	215
	Asset revaluation	SunWater re-values its assets every five years for insurance purposes and to assist with cost estimating on non-routine maintenance projects.	44
	Kinchant Dam borrow pits – Drain maintenance	The borrow pit drainage system requires periodic maintenance to ensure it functions as designed. The drains will be freed of debris and sediment build up and then re-profiled.	70
	Other works	There are 25 other non-routine projects for 2020/21.	218
	<b>2020/21 Total</b>		<b>642</b>
<b>2021/22</b>	Kinchant Dam intake – Tower strengthening (Final stage)	This is the final stage of the program to strengthen the intake tower at Kinchant Dam. The estimate will be revised once the full scope is known and costed.	325
	Switchboard replacements x3 – Options studies (Stage 1)	An options study will be done to determine the best method of replacing the three switchboards at the dam. A like-for-like replacement is not an option due to their age.	71

Year	Project Title	Project Scope	Budget (\$'000)
	Refurbish Kinchant Dam borrow pits – Clean and profile drains	This is a further allowance to clean and reprofile the drains at the borrow pits but will only be used if required.	72
	Other works	There are no other non-routine projects for 2021/22.	-
	<b>2021/22 Total</b>		<b>468</b>
<b>2022/23</b>	Mirani 3 pump station – Pump overhauls x3	The pumps at Mirani 3 pump station require regular maintenance to keep them operating efficiently. They are scheduled for refurbishment every 5-6 years which is in line with SunWater’s strategy for these types of pumps.	121
	Kinchant Dam – Bathymetric survey	A bathymetric survey of Kinchant Dam will be conducted to locate underwater obstacles. This is a public safety initiative brought about by low water levels in other dams that pose a hazard to water skiers, boats etc.	93
	Kinchant Dam – Comprehensive inspection	SunWater conducts comprehensive inspections on its dams every five years. This allows us to maintain a current knowledge of the asset condition and risks so projects can be brought in and deferred as needed in order to maintain the asset in serviceable condition.	137
	Refurbish Kinchant Dam borrow pits – Clean and profile drains	This is a further allowance to clean and reprofile the drains at the borrow pits but will only be used if required.	73
	Mirani 3 pump station – Replace fire alarm system	The fire alarm system is coming to the end of its life. Recent inspections indicate that its condition is also deteriorating so it will be replaced with a modern-day equivalent.	21
	Other works	There are no other non-routine projects for 2022/23.	-
	<b>2022/23 Total</b>		<b>445</b>
<b>2023/24</b>	Switchboard replacements x3 – Design and procurement (Stage 2)	This the second stage of the switchboard replacement based on the 2021/22 options study. The boards will be designed and procured for installation in 2023/24.	196
	Mirani 3 pump station – Pump overhauls x2	The pumps at Mirani 3 pump station require regular maintenance to keep them operating efficiently. They are scheduled for refurbishment every 5-6 years which is in keeping with SunWater’s strategy for these types of pumps. This project is to refurbish the remaining two pumps.	79



Year	Project Title	Project Scope	Budget (\$'000)
	Mirani pump station – Inlet pipework	An allowance is made to replace or refurbish the submerged pump inlet pipework every ten years. Corroded sections will be replaced or refurbished as needed. This project relates to pumps 4 and 5.	26
	Other works	There are 11 other non-routine projects for 2023/24.	216
	<b>2023/24 Total</b>		<b>517</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  
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

Eton Bulk Water 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 Eton Bulk Water Service Contract in August 2018. We have therefore prepared this addendum to aid our customers' understanding of the changes and to assist the Queensland Competition Authority (QCA) in their review.

We have:

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

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		2018/19 (\$/ML)	Cost (\$/ML) <sup>2,3</sup>	Subsidy (\$/ML)
<b>Medium Priority Allocation Charge</b>	Bulk Water Charge – Part A (fixed charge based upon entitlement)	30.59	27.22	N/A
<b>Medium Priority Allocation Water</b>	Bulk Water Charge – Part B (variable charge based upon usage)	3.95	21.17	17.22

1. This table includes bulk water charges only. For distribution charges (Part C and Part D) please refer to the Addendum to the Distribution Service Contract NSP.
2. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
3. The notional High Priority Allocation Charge cost per megalitre is \$93.27. Includes a cost allocation to 700 ML High-A Priority water for Pioneer customers that use Eton bulk assets.

**Table 2: Routine operating expenditure<sup>1</sup> – Restatement of Table 6 from the 2019 Network Service Plan**

Eton 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 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	151.5	305.3	(153.8)	561.7	312.9	400.0	320.7	399.9	390.8	404.5	440.2	437.4
Insurance	198.7	83.5	115.2	182.2	85.6	192.7	87.8	196.6	201.1	205.8	210.5	215.3
Operations	423.4	483.5	(60.1)	679.2	495.5	685.5	507.9	613.9	629.6	645.8	662.0	678.7
<b>Operations Total</b>	<b>773.6</b>	<b>872.3</b>	<b>(98.7)</b>	<b>1423.2</b>	<b>894.1</b>	<b>1278.2</b>	<b>916.4</b>	<b>1210.4</b>	<b>1221.5</b>	<b>1256.0</b>	<b>1312.8</b>	<b>1331.4</b>
Preventative maintenance	319.7	462.8	(143.1)	381.1	474.4	407.0	486.3	365.4	374.6	384.1	393.7	403.5
Corrective maintenance	67.5	323.9	(256.4)	140.8	332.0	156.3	340.3	141.0	144.4	148.0	151.6	155.3
<b>Routine Total</b>	<b>1160.8</b>	<b>1659.0</b>	<b>(498.3)</b>	<b>1945.0</b>	<b>1700.5</b>	<b>1841.4</b>	<b>1743.0</b>	<b>1716.7</b>	<b>1740.6</b>	<b>1788.1</b>	<b>1858.0</b>	<b>1890.2</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>	(1179.0)	(1826.0)	(2208.8)	(3076.6)	(2639.8)	(2368.4)	(1892.4)	(1351.7)
Spend	(1181.8)	(884.6)	(1356.9)	(921.8)	(641.6)	(467.8)	(445.4)	(517.2)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>2</sup>	623.0	638.6	654.6	669.3	1067.4	1082.2	1096.8	1124.5
Interest/financing costs	(88.3)	(136.8)	(165.4)	(230.4)	(154.3)	(138.5)	(110.6)	(79.0)
<b>SunWater – Closing balance</b>	<b>(1826.0)</b>	<b>(2208.8)</b>	<b>(3076.6)</b>	<b>(3559.6)</b>	<b>(2368.4)</b>	<b>(1892.4)</b>	<b>(1351.7)</b>	<b>(823.5)</b>
<b>QCA – Closing balance</b>	<b>(1253.4)</b>	<b>(1819.3)</b>	<b>(1591.0)</b>					
Difference	(572.6)	(389.5)	(1485.6)					

1. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. Table 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	0
Annuity income difference	544
Intersafe project spend adjustment	0
Interest difference	(32)
Alignment to previously reported data	0
Interest	408
<b>Total</b>	<b>920</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	1841.4	1716.7	1740.6	1788.1	1858.0	1890.2
Non-routine costs (Annuity contribution)	654.6	669.3	1067.4	1082.2	1096.8	1124.5
Dam improvement program	-	-	-	-	-	-
Working capital	1.7	1.6	-	-	-	-
Revenue offsets	-	-	-	-	-	-
Transfers (Distribution losses)	(537.4)	(514.0)	(620.8)	(633.9)	(650.3)	(664.5)
<b>Total costs</b>	<b>1960.3</b>	<b>1873.7</b>	<b>2187.2</b>	<b>2236.4</b>	<b>2304.6</b>	<b>2350.2</b>
<b>Notional cost allocations</b>						
Irrigation customers	1876.3	1793.4	2088.6	2135.8	2201.6	2244.9
Urban/Industrial customers	80.9	77.4	95.1	97.1	99.4	101.6
SunWater	3.1	3.0	3.4	3.5	3.6	3.7
<b>Total costs</b>	<b>1960.3</b>	<b>1873.7</b>	<b>2187.2</b>	<b>2236.4</b>	<b>2304.6</b>	<b>2350.2</b>

**Table 6: Historical actual water usage**

<b>Year</b>	<b>Usage (ML)</b>
2002/03	55,704
2003/04	28,727
2004/05	25,314
2005/06	29,680
2006/07	23,533
2007/08	6569
2008/09	27,075
2009/10	26,076
2010/11	5009
2011/12	16,347
2012/13	24,804
2013/14	23,029
2014/15	28,785
2015/16	33,913
2016/17	17,529
<b>15-year average</b>	<b>24,806</b>