

2018/19 to 2023/24 Network Service Plan

Eton Distribution Service Contract

6 August 2018

Final

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Disclaimer

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

Our plan for Eton

We’re focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Eton 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 continuing to provide reliable service through comprehensive routine operations. A program of customer meter replacements is also in place and will be rolled out on an as needs basis to ensure accurate and reliable metering. In 2018/19 there is work scheduled to improve reliability at the Victoria Plains pump station by upgrading the switchboard and control system.

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.

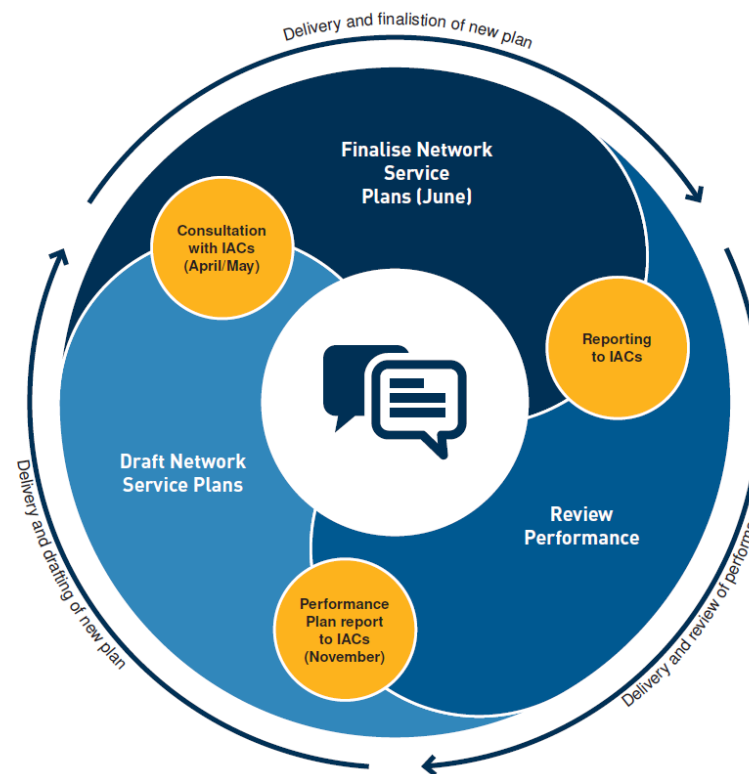
To have your say and shape future NSPs, please contact us via email or post:

Email: nspfeedback@sunwater.com.au

Post: NSP Feedback
PO Box 15536 City East
Brisbane Qld 4002

We consider and respond to all submissions, publishing all responses on our website.

Figure 1: Customer consultation and Network Service Plans



2. Delivering services to customers

At SunWater we are committed to working collaboratively with our customers to deliver value and fit-for-purpose water solutions. SunWater's Customer Service Commitment can be viewed at: www.sunwater.com.au

2.1 Our customers

The majority of our 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 data¹

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	51,644	0	51,644	0	12,904
Urban	175	0	175	0	40
SunWater (excluding distribution loss)	0	0	0	0	0
SunWater distribution loss	0	0	0	0	4475
Other	81	0	81	0	13
Total	51,900	0	51,900	0	17,432

1. Distribution system only.

The 2018/19 charges and cost per megalitre are shown in Table 2. The Eton Distribution 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 2018/19¹

Product	Charge type	2018/19 (\$/ML)	Cost (\$/ML) ^{2,3}	Subsidy (\$/ML)
Medium Priority Allocation Charge – Channel Distribution	Channel Distribution – Part C (fixed charge based upon entitlement)	35.20	74.26	39.06
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	32.81	57.31	24.50

1. This table includes distribution charges only. For river charges (Part A and Part B) please refer to the Bulk Water Service Contract NSP.
2. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
3. Reflects a cost allocation to 700 ML High-A priority water for Pioneer customers that use Eton distribution system assets.

2.2 Service targets

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

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

The unplanned shutdown events that exceeded the target in 2016/17 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 ¹	Unplanned shutdowns during Peak Demand Period	72 hours	2
	Unplanned shutdowns outside Peak Demand Period	5 working days	
Maximum number of interruptions ²	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 distribution services to our customers in Eton. We also maintain and operate a large network of pipelines with a combined capacity of 395 ML per day and several smaller balancing storages.

Table 4: Key infrastructure

Asset	Description	Capacity
Victoria Plains Balancing Station	Earth tank	25 ML
Brightley Balancing Storage 2	Excavated earth tank	8 ML
Brightley Balancing Storage 3	Excavated earth tank	50 ML
Oakenden Main Channel Balancing Storage	Excavated earth tank	50 ML
Oakenden pump station	2 pumps	30 ML/day
Brightley pump station 1	3 pumps	62 ML/day
Brightley pump station 2	2 pumps	19 ML/day
Victoria Plains pump station	2 pumps	82 ML/day
Mt Alice pump station	3 pumps	120 ML/day
Abingdon pump station	2 pumps	27 ML/day
Oakenden Main Channel	Sub-divided into two regulated control sections. Incorporates a balancing storage and 8 lateral pipelines	553 ML/day (section 1) 406 ML/day (section 2)

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 Distribution Service Contract is presented in Table 5.

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

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

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

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

Table 5: Service contract financial summary¹

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	3288.4	3723.4	3329.7	4215.3	4407.0
Community Service Obligation	1357.5	1277.1	1191.2	1100.8	980.5
Industrial ²	7.0	8.8	6.4	117.9	121.2
Urban ²	10.5	11.6	11.7	14.3	15.1
Revenue transfers ³	(1510.0)	(1534.7)	(1468.8)	(2213.7)	(2264.5)
Drainage	-	-	-	-	-
Other	31.7	13.8	2.0	2.0	2.0
Insurance proceeds – flood	-	-	-	-	-
Revenue Total	3185.0	3499.9	3072.3	3236.6	3261.2
Less – Routine expenditure	(2839.5)	(2887.1)	(2331.5)	(2974.7)	(3570.8)
Less – Non-routine expenditure					
Annuity funded	(515.4)	(573.8)	(659.2)	(552.6)	(536.5)
Non annuity funded ⁴	(3.1)	(12.6)	-	-	-
Surplus (deficit)	(173.0)	26.4	81.6	(290.7)	(1026.0)

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.

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

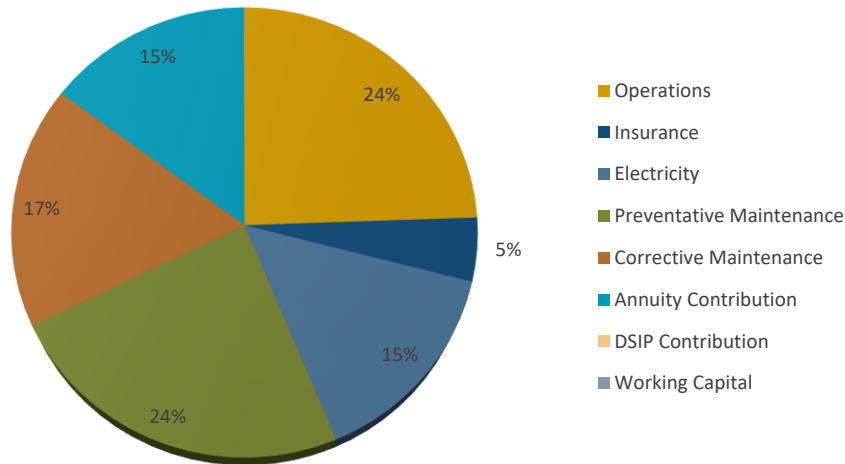
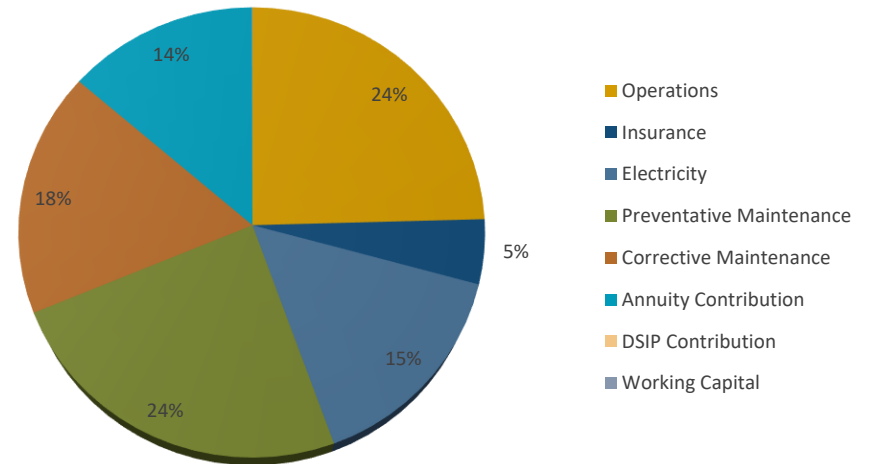


Figure 3: Breakdown of total service contract costs – 2019/20 to 2023/24 forecasts



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

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

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

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

Table 6: Routine operating expenditure^{1,2}

Eton Service Contract	2016/17			2017/18 ³		2018/19 ³		2019/20	2020/21	2021/22	2022/23	2023/24
	SunWater Actual \$'000	QCA Recommended \$'000	Variance \$'000	SunWater Estimate \$'000	2016/17 QCA Recommended (adjusted) \$'000	SunWater Forecast \$'000	2016/17 QCA Recommended (adjusted) \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000
Electricity	194.9	617.5	(422.6)	745.6	633.0	650.0	648.8	696.2	692.7	715.5	734.1	720.2
Insurance	207.5	143.8	63.7	207.5	147.4	200.7	151.1	205.3	210.0	214.8	219.8	224.8
Operations	832.1	635.8	196.2	669.3	651.7	1076.6	668.0	1081.8	1111.0	1141.0	1171.8	1203.4
Operations Total	1234.5	1397.2	(162.7)	1622.4	1432.1	1927.3	1467.9	1983.3	2013.7	2071.3	2125.7	2148.4
Preventative maintenance	707.4	676.9	30.5	833.0	693.8	1055.5	711.2	1068.6	1095.9	1124.0	1152.7	1182.2
Corrective maintenance	389.7	478.9	(89.2)	519.3	490.8	768.0	503.1	776.1	796.2	816.8	837.9	859.6
Routine Total	2331.5	2552.9	(221.4)	2974.7	2616.7	3750.8	2682.2	3828.0	3905.8	4012.1	4116.3	4190.2

1. Totals may not add due to rounding.

2. SunWater’s 2019/20 to 2023/24 budget figures are draft as at the time of consultation. These figures will not be locked down until late in the financial year prior.

3. For 2017/18 and 2018/19 SunWater has included and reported against the 2016/17 QCA recommended costs adjusted for inflation which was assumed to be 2.5%.

4.1 Operations

Eton Distribution Service Contract's total operations budget in 2018/19 is 31.30 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by higher than projected labour costs and overheads, as well as insurance. 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. 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 Eton 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. Eton Distribution Service Contract's preventative maintenance for 2018/19 is budgeted to be 48.41 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by higher than projected contractor and material costs to repair ageing air valves and pipeline leaks, and overheads.

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

4.3 Corrective maintenance

Corrective maintenance is identified in several ways including:

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

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

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

Eton Distribution Service Contract's corrective maintenance for 2018/19 is budgeted to be 52.66 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by higher than projected labour and other costs, and 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**.

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. SunWater plans to replace a number of flow meters over the coming years to prepare for a possible transition to local management arrangements. These replacements would otherwise not have occurred. We also intend to undertake targeted upgrades to switchboards and control systems at several pump stations.

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 expenditure¹

Eton Service Contract	2016/17			2017/18 ²		2018/19 ²		2019/20	2020/21	2021/22	2022/23	2023/24
	SunWater Actual \$'000	QCA Recommended \$'000	Variance \$'000	SunWater Estimate \$'000	QCA Forecast \$'000	SunWater Forecast \$'000	QCA Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000
Annuity funded												
Operations	-	-	-	-	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	87.5	-	87.5	-	-	-	-	-	-	-	-	-
Renewals	571.6	645.6	(74.0)	552.6	415.5	536.5	497.1	802.9	640.5	679.9	691.2	809.2
Non-routine total	659.2	645.6	13.5	552.6	415.5	536.5	497.1	802.9	640.5	679.9	691.2	809.2
Non annuity funded												
Other	-			-		-		-	-	-	-	-

1. Totals may not add due to rounding.

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

6. Annuity balance

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

The QCA and SunWater closing balances will differ due to differences in the expenditure profile allowed by the QCA in 2012 and actual expenditure incurred by SunWater between 2012/13 and 2018/19. This is partly due to flood events in 2010/11 and 2016/17 (approximately \$340,000). SunWater has not received insurance proceeds for these events, which may impact the annuity balances going forward.

Table 8: Annuity balance¹

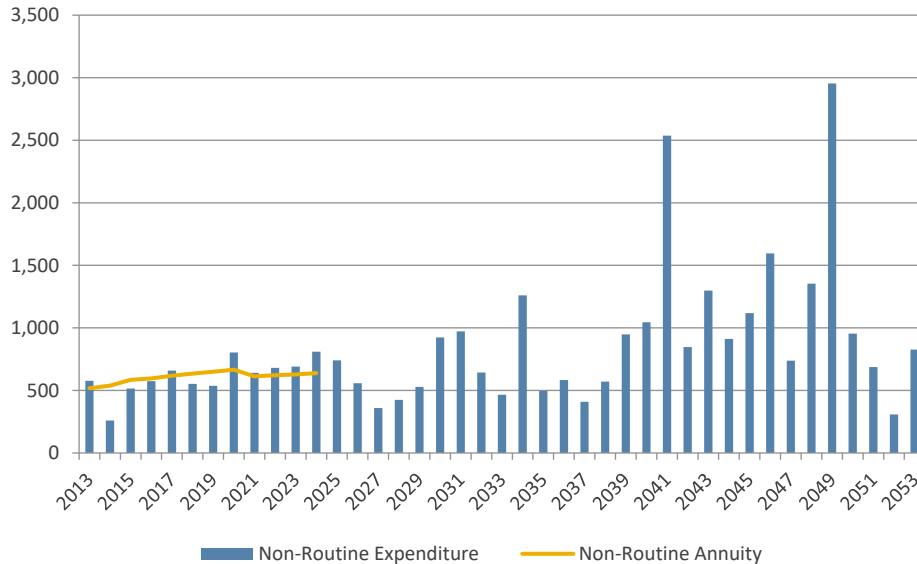
Eton Service Contract	2016/17 Actual \$'000	2017/18 Estimate \$'000	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
Annuity								
Opening balance ²	98.0	64.5	150.4	274.8	(67.6)	(99.4)	(163.0)	(235.9)
Spend	(659.2)	(552.6)	(536.5)	(802.9)	(640.5)	(679.9)	(691.2)	(809.2)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution ³	618.3	633.7	649.6	665.8	612.7	622.1	627.7	638.6
Interest/financing costs	7.3	4.8	11.3	20.6	(3.9)	(5.8)	(9.4)	(13.7)
SunWater – Closing Balance	64.5	150.4	274.8	158.3	(99.4)	(163.0)	(235.9)	(420.2)
QCA – Closing Balance	460.6	713.3	919.2					
Difference	(396.1)	(562.9)	(644.4)					

- 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 the 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.

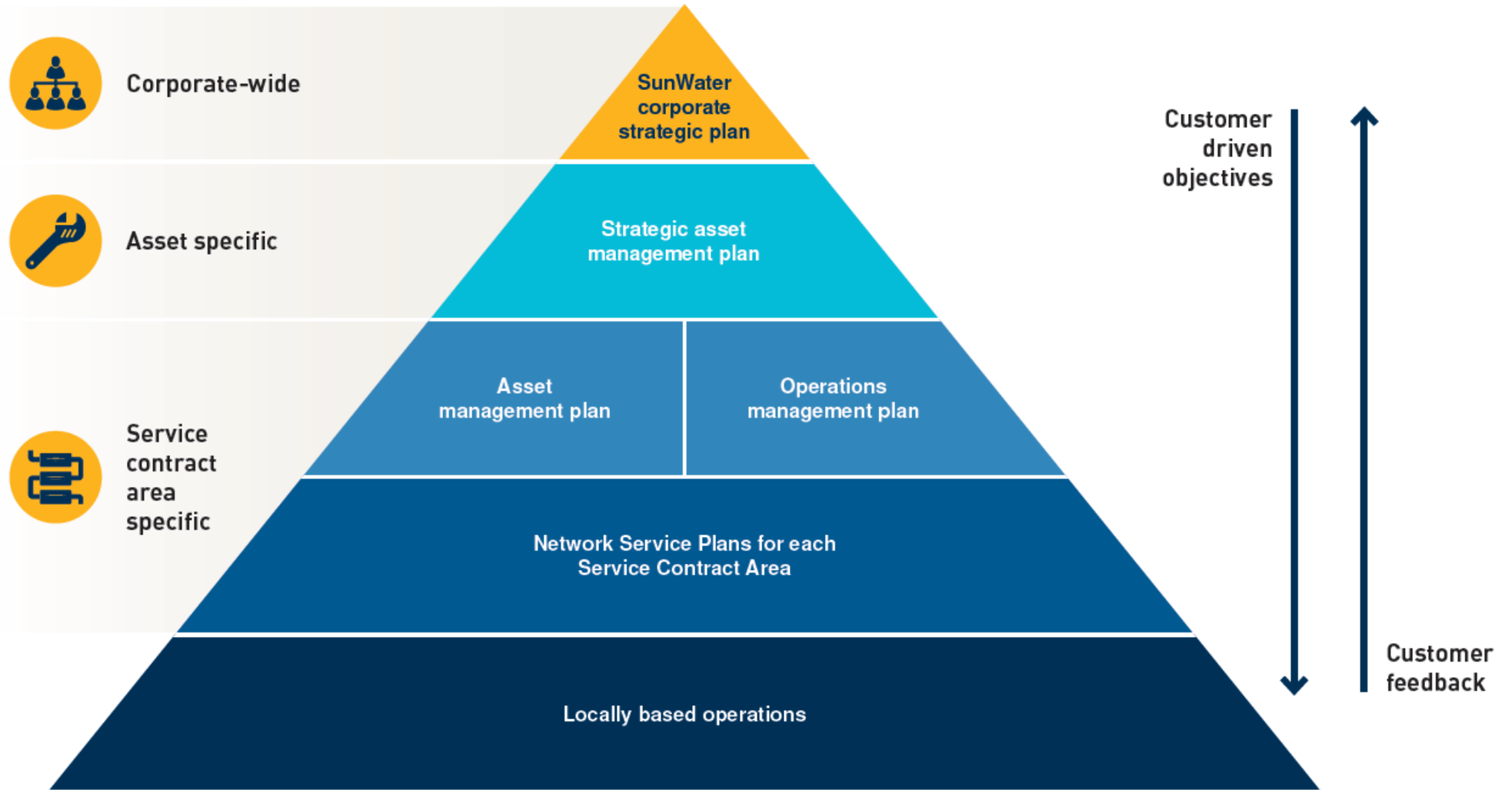
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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 type¹

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
Routine spend																		
Operations																		
Labour	331.6	238.4	93.3	373.6	246.0	127.6	299.8	253.9	45.9	264.0	260.2	327.7	266.7	337.3	347.1	357.2	367.6	378.3
Contractors	1.9	4.0	(2.1)	1.3	4.2	(2.9)	16.9	4.2	12.7	1.0	4.3	2.0	4.5	2.0	2.1	2.1	2.2	2.3
Materials	2.8	2.2	0.6	0.5	2.3	(1.7)	0.7	2.3	(1.6)	1.0	2.3	1.0	2.4	1.0	1.0	1.1	1.1	1.1
Electricity	458.2	534.4	(76.2)	465.3	577.1	(111.8)	194.9	617.5	(422.6)	745.6	633.0	650.0	648.8	696.2	692.7	715.5	734.1	720.2
Insurance	199.6	139.0	60.6	180.0	141.4	38.6	207.5	143.8	63.7	207.5	147.4	200.7	151.1	205.3	210.0	214.8	219.8	224.8
Other	15.1	3.6	11.6	18.5	3.6	14.8	22.7	3.7	19.0	20.5	3.8	20.0	3.9	20.5	20.9	21.4	21.9	22.4
Local area support costs	245.6	-	245.6	321.3	-	321.3	257.8	-	257.8	205.9	-	395.0	-	401.3	411.8	422.5	433.5	444.8
Corporate support costs	125.9	240.6	(114.7)	114.6	236.4	(121.8)	96.3	241.6	(145.3)	123.1	247.6	213.0	253.8	201.5	206.8	212.2	217.7	223.4
Indirect costs	198.3	148.8	49.6	201.2	150.6	50.6	137.9	130.1	7.8	53.9	133.4	117.9	136.7	118.2	121.3	124.5	127.7	131.1
Preventative maintenance																		
Labour	149.1	162.7	(13.7)	132.4	167.9	(35.6)	121.7	173.3	(51.6)	145.0	177.6	188.6	182.1	194.1	199.8	205.6	211.6	217.7
Contractors	115.6	103.7	11.8	108.3	107.1	1.3	221.7	108.9	112.8	230.0	111.6	200.0	114.4	204.8	209.7	214.8	220.0	225.3
Materials	189.2	138.5	50.7	198.8	142.9	55.9	144.1	145.3	(1.2)	219.0	149.0	220.0	152.7	225.1	230.2	235.5	240.9	246.5
Other	18.0	1.6	16.4	8.6	1.7	6.9	6.6	1.7	4.9	12.0	1.8	15.0	1.8	15.3	15.7	16.1	16.4	16.8
Local area support costs	109.9	-	109.9	113.3	-	113.3	104.6	-	104.6	113.1	-	241.4	-	245.3	251.7	258.2	265.0	271.9
Corporate support costs	68.0	171.8	(103.9)	52.7	169.4	(116.7)	52.7	173.1	(120.4)	84.3	177.5	122.6	181.9	116.0	119.0	122.1	125.3	128.6
Indirect costs	90.0	87.9	2.1	71.0	87.2	(16.2)	56.0	74.5	(18.5)	29.6	76.4	67.9	78.3	68.0	69.8	71.6	73.5	75.4
Corrective maintenance																		
Labour	103.6	98.3	5.3	111.7	101.4	10.2	79.9	104.7	(24.8)	108.0	107.3	161.4	110.0	166.1	170.9	175.9	181.1	186.3
Contractors	82.6	98.3	(15.7)	78.4	101.4	(23.0)	69.7	103.2	(33.5)	80.0	105.7	80.0	108.4	81.9	83.9	85.9	88.0	90.1
Materials	62.9	98.3	(35.4)	73.2	101.4	(28.3)	62.5	103.2	(40.7)	75.0	105.7	75.0	108.4	76.7	78.5	80.3	82.1	84.0
Other	86.0	14.0	72.0	64.9	14.4	50.5	41.0	14.7	26.4	92.0	15.0	82.0	15.4	83.9	85.8	87.8	89.8	91.9
Local area support costs	74.3	-	74.3	96.0	-	96.0	68.7	-	68.7	84.2	-	206.6	-	209.9	215.4	221.0	226.8	232.7
Corporate support costs	48.4	107.2	(58.8)	42.1	105.8	(63.8)	31.0	108.2	(77.2)	58.0	110.9	104.9	113.7	99.3	101.8	104.5	107.2	110.0
Indirect costs	63.1	53.1	10.0	59.4	52.7	6.8	36.7	45.0	(8.3)	22.0	46.1	58.1	47.3	58.2	59.7	61.3	62.9	64.5
Routine total	2839.5	2446.3	393.2	2887.1	2515.1	372.0	2331.5	2552.9	(221.4)	2974.7	2616.7	3750.8	2682.2	3828.0	3905.8	4012.1	4116.3	4190.2
Non-routine spend																		
Labour	58.8	58.5	0.3	91.3	125.9	(34.7)	74.3	119.1	(44.8)	54.5	70.5	65.0	84.3	54.4	63.5	47.2	68.8	115.0
Contractors	225.7	65.2	160.4	204.6	137.1	67.6	264.7	128.5	136.2	300.8	95.5	261.7	114.3	563.8	313.3	458.2	379.1	193.5
Materials	72.2	63.5	8.7	83.3	137.1	(53.7)	175.0	126.3	48.7	91.1	75.7	71.5	90.6	74.5	131.8	75.3	97.8	185.5
Other	42.9	34.6	8.3	23.4	74.8	(51.3)	6.6	68.7	(62.1)	9.3	41.8	7.7	50.0	4.5	1.0	2.8	7.5	83.4
Local area support costs	44.9	76.5	(31.6)	78.5	156.1	(77.6)	61.3	144.7	(83.4)	42.5	90.8	65.0	108.7	38.6	50.8	37.8	53.7	92.0
Corporate support costs	36.8	-	36.8	41.1	-	41.1	43.1	-	43.1	43.1	-	42.2	-	45.2	52.7	39.2	57.1	95.5
Indirect costs	34.1	36.7	(2.6)	51.6	75.1	(23.5)	34.2	58.2	(24.0)	11.1	41.1	23.4	49.2	21.8	27.6	19.4	27.4	44.3
Non-routine total	515.4	335.0	180.4	573.8	706.1	(132.2)	659.2	645.6	13.5	552.6	415.5	536.5	497.1	802.9	640.5	679.9	691.2	809.2
Total spend	3354.9	2781.4	573.5	3460.9	3221.1	239.8	2990.7	3198.5	(207.9)	3527.3	3032.2	4287.2	3179.2	4630.9	4546.3	4692.0	4807.5	4999.4

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 Distribution Service Contract is allocated 4.002 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 Eton Distribution Service Contract is allocated 1.384 per cent of the forecast total indirect costs.

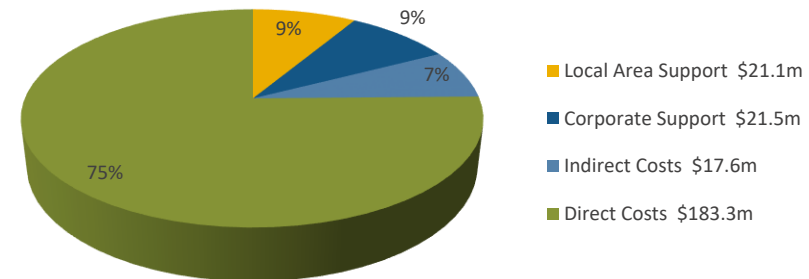
Corporate support costs

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 Eton Distribution Service Contract is allocated 2.048 per cent of the forecast total corporate support costs.

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



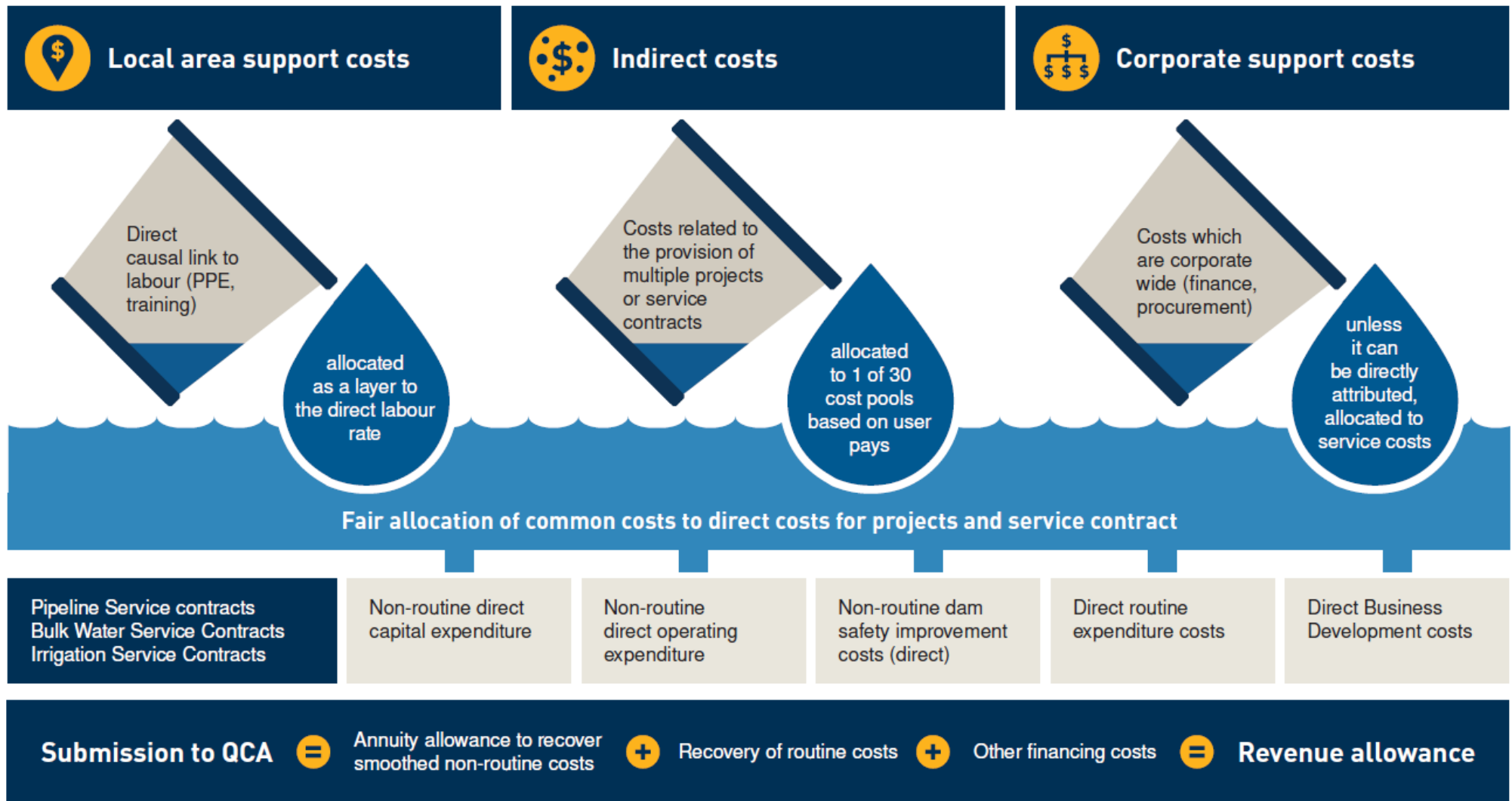
In the 2012 irrigation pricing review, the QCA reviewed and accepted SunWater's methodology for recovering local area support costs, indirect costs and corporate support costs. In 2018 we reviewed the cost allocation methodology and made changes to increase the transparency of local overhead costs and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

- removed the cascading of corporate overheads into indirect costs
- made the local overhead rate specific to each region
- simplified the cost drivers to labour only, removing the 5 per cent on direct cash costs excluding labour and electricity.

Forecast figures contained in this NSP reflect this change in approach.

Figure 7 below illustrates the allocation of costs associated with providing services.

Figure 7: How are SunWater's costs allocated to each service contract?



Appendix 3: Routine expenditure

Operations

Operations expenditure includes day-to-day costs associated with management of the Service Contract, water delivery and meeting compliance obligations. Specific activities include the direct and non-direct costs of:

- scheduling and delivering water, including processing water orders, releasing water, operating pump stations, regulating and monitoring channel flows, and monitoring customer deliveries
- emergency responses for channel overflows and other emergency events
- meter reading
- administration of water accounts, billing and receipting payments
- customer management, including enquiries, complaints and maintaining the customer service help desk
- Service Contract management, including licences and permits, rates, land management, planning and reporting
- insurance
- monitoring the security of infrastructure and unauthorised access
- managing engagement associated with the Service Contract
- managing enquiries from adjoining landholders and developers that require input from and negotiations with SunWater’s property and legal sections.

Preventative maintenance

Preventative maintenance for the Eton 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
 - Acrolein treatment of channels
 - Copper Sulphate treatment
 - spraying and other activities to control nuisance and noxious weeds.

Scheduled corrective maintenance

Scheduled corrective maintenance varies by asset type and typically includes 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	Work Items	Work Description	Budget (\$'000)
2018/19	Victoria Plains pump station – Replace switchboard and control system (Stage 1)	Works based on an options analysis completed by GHD in 2016/17 and subsequent SunWater review. Equipment and component testing is currently underway to confirm equipment condition and functionality. The scope of works will likely reflect Option 4 of the SunWater review which entails replacing targeted switchboard and control system components with new equipment.	226
	Meter replacements	Staged upgrade of Abingdon, Brightley, Mt Alice and Oakenden system customer metering fleet (11) to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and Australian Standard (AS) 4747.	76
	Oakenden main channel – Refurbish regulating gate	Regulating gate to be blasted, painted, fitted with seals/bearing and anodes, and recommissioned. Works based on SunWater’s Float Regulator Gate Strategy to retain gate condition in perpetuity.	42
	Abingdon relift pump station – Flow meter replacement	Works based on completed options analysis. Works to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747. Progress is subject to local management arrangements.	30
	Meter isolation valve replacements	Staged replacement of Victoria Plains, Mt Alice, Oakenden and Marwood customer meter isolation valves (13). Works based on ageing condition and function, replace with new, and recover serviceable parts. Works to reduce leakage, improve control and deliver efficiencies.	36
	Other works	The balance of the 2018/19 program consists of Victoria Plains pump station chart recorder and motor starter replacements, scheme fencing refurbishment and two pump station pressure vessel inspections.	126
	2018/19 Total		536
2019/20	Oakenden pump station – Replace switchboard and control system	Works based on an options analysis completed by GHD in 2016/17 and subsequent SunWater review. The scope of works will likely reflect Option 4 of the SunWater review which entails replacing targeted switchboard and control system components with new equipment.	244

Year	Work Items	Work Description	Budget (\$'000)
	Oakenden main channel – Flow meter replacement (Stage 1)	Works based on completed options analysis. Works to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747. Progress is subject to local management arrangements.	101
	Meter replacements	Staged upgrade of Brightley main channel and Channel 23 customer metering fleet (14) to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747.	113
	Victoria Plains Channel 21 – Replace UPVC pipeline	Section 285.6 to 866.3m to be replaced due to pipeline condition and maintenance history. Works to reinstate asset condition, and reduce system losses and operating costs.	62
	Brightley pump station – Refurbish pump motor 3 (station 1), motor 1 (station 2) and pump 3 (station 1)	Works based on standard asset refurbishment life and equipment history. Works to reinstate equipment condition and ensure continued reliability.	63
	Abingdon relift pump station – Replace switchboard and control equipment (Stage 1)	Design and procurement activities. Works based on an options analysis completed by GHD in 2016/17 and subsequent SunWater review. The scope of works will likely reflect Option 4 of the SunWater review which entails replacing targeted switchboard and control system components with new equipment.	49
	Other works	The balance of the 2019/20 program consists of third-party crane and hoist inspections, a cable replacement at Oakenden pump station, fencing and signage refurbishments/replacements and Abingdon relift pump station sump pump guide replacements.	171
	2019/20 Total		803
2020/21	Oakenden main channel – Flow meter replacement (Stage 2)	Works based on completed options analysis. Works to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747. Progress is subject to local management arrangements.	160
	Meter replacements	Staged upgrade of Brightley Channel 23 customer metering fleet (14) to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747.	112
	Mt Alice pump station – Refurbish pump 2 motor starter	Works based on condition assessment undertaken by GHD and asset age. Condition to be confirmed and operating history to be considered prior to commencement of works.	56

Year	Work Items	Work Description	Budget (\$'000)
	Oakenden main channel – Refurbish regulating gates	Regulating gates to be blasted, painted, fitted with seals/bearing and anodes, and recommissioned. Works based on SunWater’s Float Regulator Gate Strategy to retain gate condition in perpetuity.	84
	Other works	The balance of the 2020/21 program consists of third-party crane and hoist inspections, and air vent/valve, fencing and road refurbishment activities.	229
	2020/21 Total		641
2021/22	Abingdon relift pump station – Replace switchboard and control equipment (Stage 2)	Supply, installation and commissioning of equipment. Works based on an options analysis completed by GHD in 2016/17 and subsequent SunWater review. The scope of works will likely reflect Option 4 of the SunWater review which entails replacing targeted switchboard and control system components with new equipment.	269
	Meter replacements	Staged upgrade of Brightley main channel and Channel 23 customer metering fleet (22) to improve metering accuracy, scheme delivery efficiency and compliance with SunWater’s standards and AS4747.	182
	Mt Alice pump station – Refurbish pump 3 motor starter	Works based on condition assessment undertaken by GHD and asset age. Condition to be confirmed and operating history to be considered prior to commencement of works.	57
	Mt Alice pump station – Replace switchboard and control equipment (Stage 1)	Design and procurement activities. Works based on an options analysis completed by GHD in 2016/17 and subsequent SunWater review. The scope of works will likely reflect Option 4 of the SunWater review which entails replacing targeted switchboard and control system components with new equipment.	47
	Other works	The balance of the 2021/22 program consists of third-party crane and hoist inspections, and Victoria Plains, Brightley and Mt Alice pump station pipe works refurbishments.	125
	2021/22 Total		680
2022/23	Mt Alice pump station – Replace switchboard and control equipment (Stage 2)	Installation and commissioning of equipment. Works based on an options analysis completed by GHD in 2016/17 and subsequent SunWater review. The scope of works will likely reflect Option 4 of the SunWater review which entails replacing targeted switchboard and control system components with new equipment.	312

Year	Work Items	Work Description	Budget (\$'000)
	Meter replacements	Staged upgrade of Brightley Channel 23, Marwood main channel and Channel 24 customer metering fleet (11) and Marwood main channel flow meter (1) to improve metering accuracy, scheme delivery efficiency and compliance with SunWater's standards and AS4747.	105
	Oakenden main channel – Refurbish regulating gate	Regulating gate to be blasted, painted, fitted with seals/bearing and anodes, and recommissioned. Works based on SunWater's Float Regulator Gate Strategy to retain gate condition in perpetuity.	44
	Oakenden pump station – Replace pump 1 & 2 priming valves	Works based on standard asset life and maintenance history (condition to be confirmed prior to works). Works to reinstate valve function, and ensure effective pump priming and facility reliability.	50
	Other works	The balance of the 2022/23 program consists of Oakenden pump station discharge pipe works (5), scour valve replacements (2), and a number of smaller equipment replacements and refurbishments.	180
	2022/23 Total		691
2023/24	Mt Alice pump station – Replace mains cable	Works are based on asset service life and is scheduled for 2023/24. Project may be promoted or deferred pending cable test results and efficient coordination with the switchboard and control equipment works.	185
	Brightley main channel and Channel 23 – Replace scour valves	Replacements works (27) are based on standard asset life. Valve condition to be re-assessed prior to works commencing to confirm timing and prudence.	138
	Meter replacements	Staged upgrade of Marwood Channel 24 customer metering fleet (13) to improve metering accuracy, scheme delivery efficiency and compliance with SunWater's standards and AS4747.	130
	Marwood main channel – Flow meter replacement	Works based on standard asset life and performance. Works to improve metering accuracy, scheme delivery efficiency and compliance SunWater's standards and AS4747.	80
	Oakenden main channel – Refurbish regulating gate	Regulating gate to be blasted, painted, fitted with seals/bearing and anodes and recommissioned. Works based on SunWater's Float Regulator Gate Strategy to retain gate condition in perpetuity.	46

Year	Work Items	Work Description	Budget (\$'000)
	Other works	The balance of the 2023/24 program consists of the Mt Alice pump station pump 2 refurbishment, Victoria Plains and Oakenden relift pump station discharge valve and actuator works, and Oakenden main channel handrails and isolating valves.	230
	2023/24 Total		809



Contact us

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

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We consider and respond to all submissions, publishing all responses on our website.

Addendum to the 2018/19 to 2023/24 Network Service Plan

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

We have:

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

Note:

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

Table 1: Irrigation charges for 2018/19¹ – Restatement of Table 2 from the 2019 Network Service Plan

Product	Charge type	2018/19 (\$/ML)	Cost (\$/ML) ^{2,3}	Subsidy (\$/ML)
Medium Priority Allocation Charge – Channel Distribution	Channel Distribution – Part C (fixed charge based upon entitlement)	35.20	69.93	34.73
Medium Priority Allocation Water – Channel Distribution	Channel Distribution – Part D (variable charge based upon usage)	32.81	48.40	15.59

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.
3. Reflects a cost allocation to 700 ML High-A priority water for Pioneer customers that use Eton distribution system assets.

Table 2: Routine operating expenditure¹ – Restatement of Table 6 from the 2019 Network Service Plan

	2016/17			2017/18 ²		2018/19 ²		2019/20	2020/21	2021/22	2022/23	2023/24
	SunWater Actual \$'000	QCA Recommended \$'000	Variance \$'000	SunWater Actual \$'000	2016/17 QCA Recommended (adjusted) \$'000	SunWater Forecast \$'000	2016/17 QCA Recommended (adjusted) \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000
Electricity	194.9	617.5	(422.6)	458.4	633.0	650.0	648.8	653.3	638.4	660.7	719.1	714.5
Insurance	207.5	143.8	63.7	191.1	147.4	200.7	151.1	204.8	209.5	214.3	219.2	224.3
Operations	832.1	635.8	196.2	729.9	651.7	1076.6	668.0	1080.1	1108.4	1137.5	1166.7	1196.6
Operations Total	1234.5	1397.2	(162.7)	1379.4	1432.1	1927.3	1467.9	1938.2	1956.2	2012.5	2105.0	2135.3
Preventative maintenance	707.4	676.9	30.5	858.8	693.8	1055.5	711.2	1066.6	1093.3	1120.8	1148.5	1176.8
Corrective maintenance	389.7	478.9	(89.2)	551.3	490.8	768.0	503.1	774.6	794.3	814.4	834.7	855.5
Routine Total	2331.5	2552.9	(221.4)	2789.5	2616.7	3750.8	2682.2	3779.4	3843.8	3947.7	4088.2	4167.7

1. SunWater's 2019/20 to 2023/24 budget figures are draft as at the time of consultation. These figures will not be locked down until late in the financial year prior.
2. For 2017/18 and 2018/19 SunWater has included and reported against the 2016/17 QCA recommended costs adjusted for inflation which was assumed to be 2.5%.

Table 3: Annuity balance – Restatement of Table 8 from the 2019 Network Service Plan

	2016/17 Actual \$'000	2017/18 Actual \$'000	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
Annuity								
Opening balance ¹	98.0	64.5	226.9	357.0	19.1	(12.5)	(75.9)	(148.6)
Spend	(659.2)	(476.1)	(536.5)	(802.9)	(640.5)	(679.9)	(691.2)	(809.2)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution ²	618.3	633.7	649.6	664.2	607.8	617.2	623.0	633.8
Interest/financing costs	7.3	4.8	17.0	26.7	1.1	(0.7)	(4.4)	(8.7)
SunWater – Closing balance	64.5	226.9	357.0	245.0	(12.5)	(75.9)	(148.6)	(332.7)
QCA – Closing balance	460.6	713.3	919.2					
Difference	(396.1)	(486.4)	(562.2)					

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	5
Annuity income difference	(134)
Intersafe project spend adjustment	(6)
Interest difference	5
Alignment to previously reported data	0
Interest	(96)
Total	(226)

Table 5: Cost building blocks and notional cost allocations

	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
Cost building blocks						
Routine costs	3750.8	3779.4	3843.8	3947.7	4088.2	4167.7
Non-routine costs (Annuity contribution)	649.6	664.2	607.8	617.2	623.0	633.8
Dam improvement program	-	-	-	-	-	-
Working capital	3.0	3.0	-	-	-	-
Revenue offsets	(2.0)	(2.1)	(2.1)	(2.2)	(2.2)	(2.3)
Transfers (Distribution losses)	537.4	514.0	620.8	633.9	650.3	664.5
Total costs	4938.7	4958.5	5070.4	5196.6	5359.2	5463.7
Notional cost allocations						
Irrigation customers	4656.4	4675.1	4779.1	4898.4	5053.5	5151.1
Urban/Industrial customers	274.5	275.6	283.4	290.1	297.3	304.0
SunWater	7.7	7.8	7.9	8.1	8.4	8.6
Total costs	4938.7	4958.5	5070.4	5196.6	5359.2	5463.7

Table 6: Historical actual water usage

Year	Usage (ML)
2002/03	55,704
2003/04	28,727
2004/05	25,314
2005/06	29,675
2006/07	23,528
2007/08	6569
2008/09	27,075
2009/10	26,076
2010/11	4993
2011/12	16,279
2012/13	24,709
2013/14	22,900
2014/15	28,617
2015/16	33,538
2016/17	17,411
15-year average	24,741