



2018/19 to 2023/24 Network Service Plan

# Pioneer River Bulk Water Service Contract

31 July 2018

Final

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### Disclaimer

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

## Our plan for Pioneer River

We’re focused on reliability, efficiency and safety, ensuring through ongoing consultation that the Pioneer River 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.

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 Pioneer Valley Water Board on the draft NSP and feedback from the Board 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 23 customers in this Service Contract are irrigators in Palm Creek and Cattle Creek. Water is also provided to supplement the town water supply for Mackay and surrounding townships, and for industrial purposes.

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

**Table 1: Water entitlement and usage data**

Customer Segment	Total Water Entitlements (ML)	High-A Priority Water Entitlements (ML)	High-B Priority Water Entitlements (ML)	Water Deliveries 2016/17 (ML)
Irrigation	47,390	33	47,357	4928
Urban	16,520	16,520	0	10,816
Industrial	1920	1920	0	831
SunWater	12,280	12,280	0	1
<b>Total</b>	<b>78,110</b>	<b>30,753</b>	<b>47,357</b>	<b>16,576</b>

The 2018/19 charges and cost per megalitre are shown in Table 2. The Pioneer River Bulk Water Service Contract is not expected to fully recover irrigation’s share of costs.

**Table 2: Irrigation charges for 2018/19**

Product		2018/19 (\$/ML)	Cost (\$/ML) <sup>1,2,3</sup>	Subsidy (\$/ML)
<b>Medium Priority Allocation Charge</b>	Bulk Water Charge – Part A (fixed charge based upon entitlement)	14.45	15.68	1.23
<b>Medium Priority Allocation Water</b>	Bulk Water Charge – Part B (variable charge based upon usage)	3.05	4.56	1.51

1. Costs reflect lower bound cost recovery ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
2. The notional High Priority Allocation Charge cost per megalitre is \$31.93.
3. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 38 per cent (previously 44 per cent).

### 2.2 Key infrastructure

Table 3 lists the key infrastructure used to deliver bulk water services to our customers in Pioneer River.

**Table 3: Key infrastructure**

<b>Asset</b>	<b>Description</b>	<b>Total storage capacity (ML)</b>
<b>Teemburra Dam</b>	Concrete faced rock fill structure with 3 saddle dams and ogee crest spillway. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	147,500
<b>Dumbleton Weir</b>	Mass concrete structure with a fish lock	8840
<b>Mirani Weir</b>	Mass concrete. It is also used as a pumping pool for the Mirani pumping stations which supply water to Kinchant Dam in the Eton water supply system	4660
<b>Marian Weir</b>	Mass concrete with ogee crest in two sections	3980

### 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 Pioneer River Bulk Water Service Contract is presented in Table 4.

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 Pioneer River Bulk Water Service Contract in 2018/19.

In 2018/19, SunWater plans to increase routine expenditure and decrease annuity funded non-routine expenditure for the Pioneer River 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**.

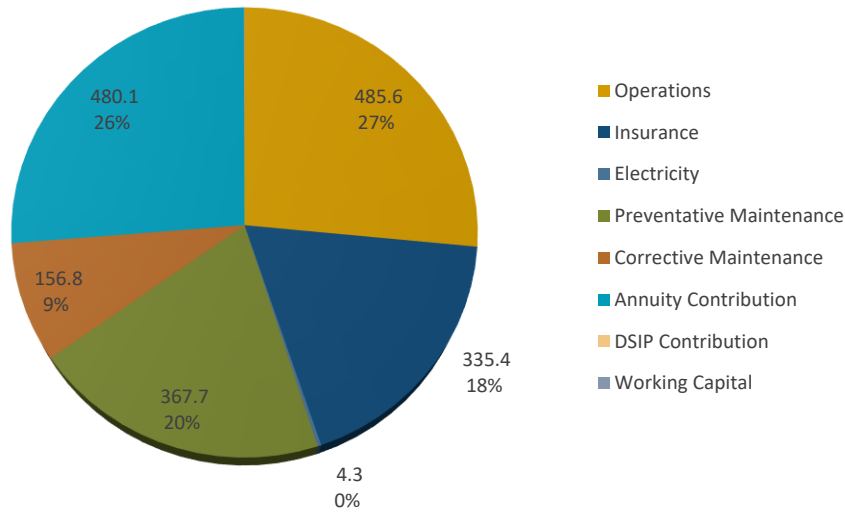
**Table 4: Service contract financial summary<sup>1</sup>**

Pioneer River Service Contract	2014/15 Actual \$'000	2015/16 Actual \$'000	2016/17 Actual \$'000	2017/18 Estimate \$'000	2018/19 Forecast \$'000
Revenue					
Irrigation	653.3	688.8	663.1	729.9	748.7
Community Service Obligation	-	-	-	-	-
Industrial <sup>2</sup>	607.8	665.3	627.8	518.0	552.8
Urban <sup>2</sup>	200.6	79.3	250.5	140.7	144.3
Drainage	-	-	-	-	-
Other	213.7	112.4	0.3	1.0	1.0
Insurance proceeds – flood	-	-	-	-	-
<b>Revenue Total</b>	<b>1675.4</b>	<b>1545.9</b>	<b>1541.6</b>	<b>1389.7</b>	<b>1446.8</b>
Less – Routine expenditure	(802.4)	(993.5)	(1135.9)	(1172.1)	(1349.8)
Less – Non-routine expenditure					
Annuity funded	(317.0)	(1062.8)	(543.4)	(1274.2)	(293.5)
Non annuity funded <sup>3</sup>	-	-	-	(539.0)	(1053.9)
<b>Surplus (deficit)</b>	<b>556.0</b>	<b>(510.5)</b>	<b>(137.6)</b>	<b>(1595.7)</b>	<b>(1250.4)</b>

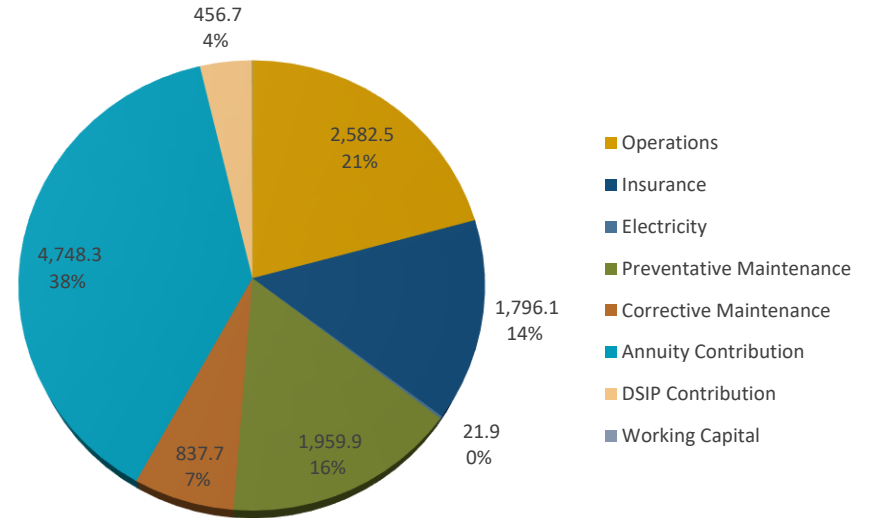
- Totals may not add due to rounding.
- Forecast revenues for industrial and urban customers are based on current contractual arrangements.
- This is expenditure which has not been funded by irrigation customers. An example of this in the Pioneer River Bulk Water Service Contract is the dam improvement 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 (\$'000)**



**Figure 3: Breakdown of total service contract costs – 2019/20 to 2023/24 forecasts (\$'000)**



## 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 Pioneer River Bulk Water Service Contract’s routine operating expenditure in 2018/19 (refer to Table 5). 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 1.46 per cent reduction in indirect costs.

The data presented in Table 5 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 5: Routine operating expenditure<sup>1,2</sup>**

Pioneer River 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	4.5	5.2	(0.7)	4.2	5.4	4.3	5.5	4.3	4.3	4.4	4.5	4.4
Insurance	345.8	97.4	248.4	345.8	99.8	335.4	102.3	343.1	351.0	359.0	367.3	375.7
Operations	318.2	452.1	(133.9)	383.0	463.4	485.6	475.0	489.9	502.9	516.2	529.8	543.8
<b>Operations Total</b>	<b>668.5</b>	<b>554.8</b>	<b>113.8</b>	<b>732.9</b>	<b>568.6</b>	<b>825.3</b>	<b>582.8</b>	<b>837.3</b>	<b>858.1</b>	<b>879.6</b>	<b>901.6</b>	<b>923.9</b>
Preventative maintenance	361.2	243.8	117.4	298.8	249.9	367.7	256.2	372.1	381.8	391.7	401.9	412.3
Corrective maintenance	106.2	198.0	(91.8)	140.5	202.9	156.8	208.0	159.3	163.3	167.4	171.6	175.9
<b>Routine Total</b>	<b>1135.9</b>	<b>996.6</b>	<b>139.3</b>	<b>1172.1</b>	<b>1021.5</b>	<b>1349.8</b>	<b>1047.0</b>	<b>1368.8</b>	<b>1403.2</b>	<b>1438.7</b>	<b>1475.1</b>	<b>1512.2</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

Pioneer River Bulk Water Service Contract's total operations budget in 2018/19 is 41.59 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by higher than projected insurance costs.

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

### Insurance

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

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

## 4.2 Preventative maintenance

Preventative maintenance underpins the ongoing operational performance and service capacity of Pioneer River 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. Pioneer River Bulk Water Service Contract's preventative maintenance for 2018/19 is budgeted to be 43.56 per cent above the QCA's recommended costs (adjusted for inflation). This variance is largely driven by higher than projected contractor costs.

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.

Pioneer River Bulk Water Service Contract's corrective maintenance for 2018/19 is budgeted to be 24.63 per cent below the QCA's recommended costs (adjusted for inflation). This variance is largely driven by lower 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.

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

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

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

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

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

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

Table 7 sets out our non-routine annuity and non-annuity funded expenditure.

Details of the major non-routine projects planned for the period from 2018/19 to 2023/24 are set out in **Appendix 4**.

### 5.1 Dam improvement program

Under current Queensland Government policy, expenditure for the dam improvement program (DIP) is not recovered from customers. Table 6 shows forecast DIP expenditure, as well as the return on assets. This expenditure is non annuity funded.

**Table 6: Dam improvement program**

Pioneer River Service Contract	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
DIP Expenditure <sup>1</sup>	1387.6	3155.8	194.3	-	-
DIP Contribution <sup>2</sup>	-	60.8	126.3	133.2	136.5
DIP Contribution - % of Total Costs	0.0%	2.5%	4.8%	4.9%	4.9%

1. DIP expenditure reflects approximately 50 per cent of the current cost estimates, as a detailed business case has not yet been completed.
2. The DIP contribution is based on an “as incurred” approach for transparency of potential cost impacts on customers to 2023/24.

Table 7: Non-routine expenditure<sup>1</sup>

Pioneer River 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	24.9	167.4	(142.6)	6.5	-	-	-	-	-	-	-	-
Preventative maintenance	-	-	-	-	-	-	-	-	-	-	-	-
Corrective maintenance (flood)	29.3	-	29.3	-	-	-	-	-	-	-	-	-
Renewals	489.2	387.7	101.5	1267.7	285.2	293.5	636.8	741.4	230.9	307.0	71.5	1128.3
<b>Non-routine total</b>	<b>543.4</b>	<b>555.2</b>	<b>(11.8)</b>	<b>1274.2</b>	<b>285.2</b>	<b>293.5</b>	<b>636.8</b>	<b>741.4</b>	<b>230.9</b>	<b>307.0</b>	<b>71.5</b>	<b>1128.3</b>
<b>Non annuity funded</b>												
<b>Other</b>	-			<b>539.0</b>		<b>1053.9</b>		<b>2770.4</b>	<b>6299.6</b>	<b>387.9</b>	-	-

1. Totals may not add due to rounding.

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

## 6. Annuity balance

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

The QCA and SunWater closing balances will differ due to differences in the expenditure profile allowed by the QCA in 2012 and actual expenditure incurred by SunWater between 2012/13 and 2018/19. Contributing factors include: repairing damage following flood events in 2010/11 and 2016/17, financing costs, the removal of fabri-dams at Dumbleton and Mirani Weirs, and a comprehensive risk assessment at Teemburra Dam.

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

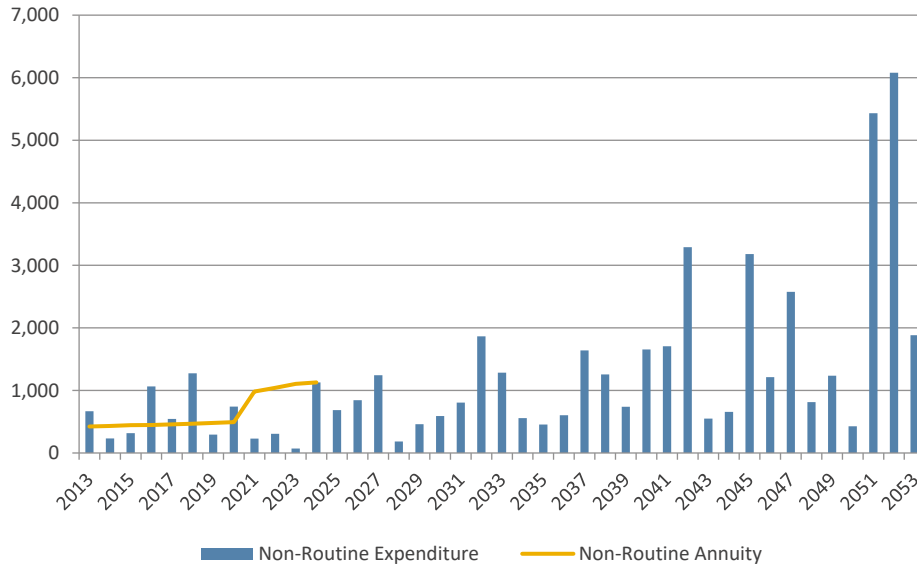
Pioneer River Service Contract	2016/17 Actual \$'000	2017/18 Estimate \$'000	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
<b>Annuity</b>								
Opening balance <sup>2</sup>	(3717.0)	(4081.7)	(5193.2)	(5395.6)	(5666.0)	(5242.5)	(4812.5)	(4057.4)
Spend	(543.4)	(1274.2)	(293.5)	(741.4)	(230.9)	(307.0)	(71.5)	(1128.3)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>3</sup>	457.0	468.4	480.1	492.1	982.3	1040.4	1105.1	1128.4
Interest/financing costs	(278.4)	(305.7)	(389.0)	(404.1)	(327.9)	(303.4)	(278.5)	(234.8)
<b>SunWater – Closing Balance</b>	<b>(4081.7)</b>	<b>(5193.2)</b>	<b>(5395.6)</b>	<b>(6048.9)</b>	<b>(5242.5)</b>	<b>(4812.5)</b>	<b>(4057.4)</b>	<b>(4292.1)</b>
<b>QCA – Closing Balance</b>	<b>(1782.8)</b>	<b>(1733.1)</b>	<b>(2019.6)</b>					
Difference	(2299.0)	(3460.1)	(3376.0)					

- 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 Pioneer Valley Water Board 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.

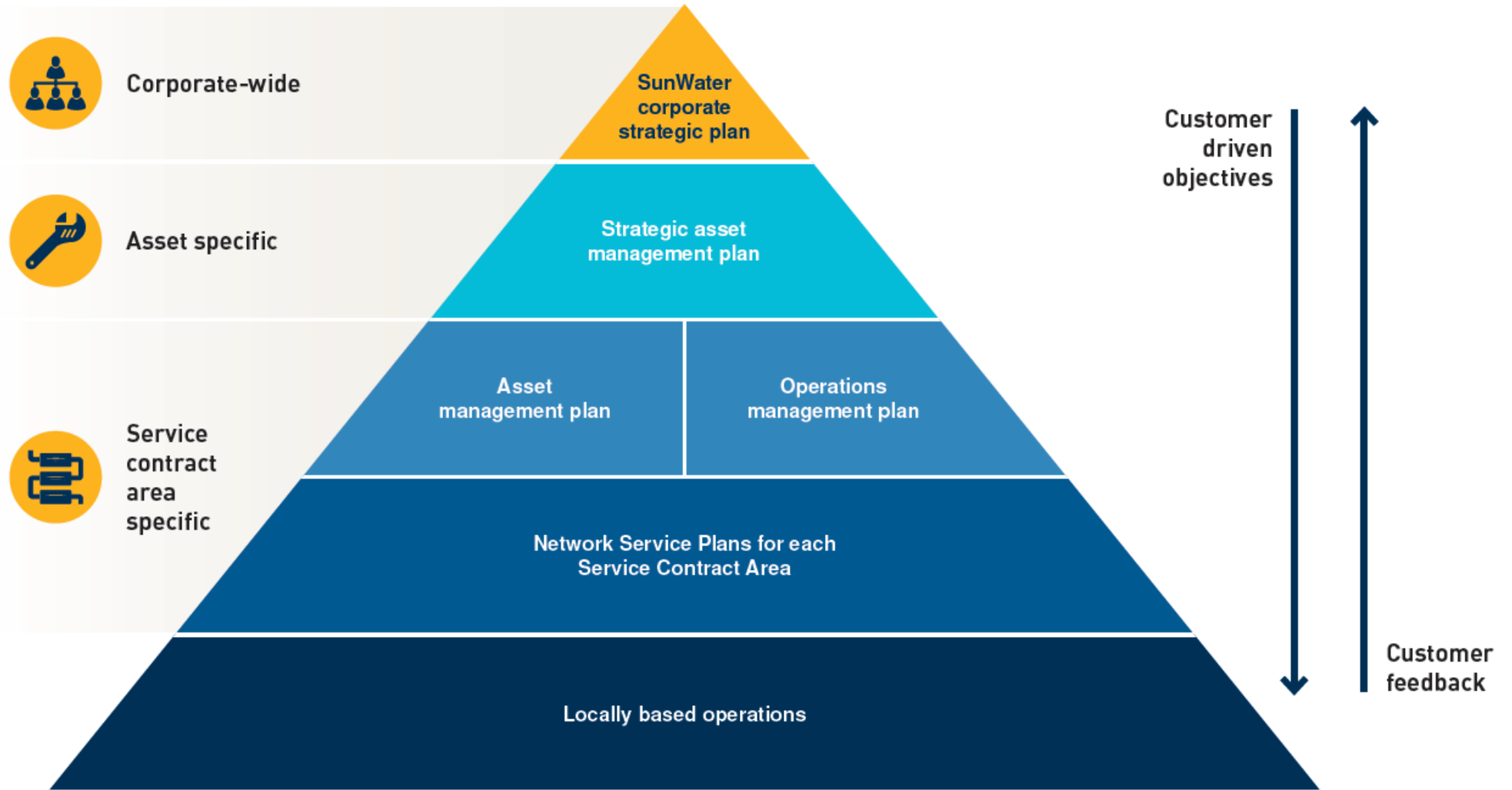
For less complex (more routine) renewals projects with fewer practical outcomes, SunWater will use its engineering knowledge and experience to determine the optimum solution.

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>

Pioneer River 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	73.8	133.3	(59.5)	74.9	137.6	(62.7)	79.1	142.0	(62.9)	92.0	145.5	93.0	149.2	95.7	98.5	101.4	104.3	107.4
Contractors	52.6	13.9	38.7	36.0	14.3	21.7	19.3	14.6	4.8	25.0	14.9	20.0	15.3	20.5	21.0	21.5	22.0	22.5
Materials	2.7	2.2	0.6	0.3	2.3	(2.0)	0.1	2.3	(2.2)	5.0	2.3	5.0	2.4	5.1	5.2	5.4	5.5	5.6
Electricity	3.9	4.5	(0.6)	3.4	4.9	(1.5)	4.5	5.2	(0.7)	4.2	5.4	4.3	5.5	4.3	4.3	4.4	4.5	4.4
Insurance	201.2	94.1	107.1	182.5	95.7	86.8	345.8	97.4	248.4	345.8	99.8	335.4	102.3	343.1	351.0	359.0	367.3	375.7
Other	20.8	14.2	6.6	18.9	14.5	4.4	23.4	14.7	8.7	38.0	15.1	24.0	15.5	24.6	25.1	25.7	26.3	26.9
Local area support costs	55.6	-	55.6	64.4	-	64.4	68.0	-	68.0	71.8	-	110.4	-	112.2	115.1	118.1	121.2	124.4
Corporate support costs	39.1	136.7	(97.7)	32.8	134.5	(101.7)	41.6	137.4	(95.9)	59.6	140.9	60.5	144.4	57.2	58.7	60.2	61.8	63.4
Indirect costs	56.0	150.8	(94.9)	87.4	145.4	(58.0)	86.6	141.1	(54.5)	91.6	144.7	172.7	148.3	174.7	179.2	183.9	188.7	193.6
<b>Preventative maintenance</b>																		
Labour	66.4	72.8	(6.4)	86.8	75.2	11.7	99.7	77.6	22.1	68.7	79.5	70.5	81.5	72.6	74.7	76.8	79.1	81.4
Contractors	58.1	8.2	49.9	100.5	8.5	92.0	73.0	8.6	64.4	105.0	8.8	110.0	9.0	112.6	115.4	118.1	121.0	123.9
Materials	4.7	5.2	(0.6)	3.5	5.4	(1.9)	4.1	5.5	(1.4)	5.0	5.6	5.0	5.8	5.1	5.2	5.4	5.5	5.6
Other	2.1	8.5	(6.4)	6.5	8.7	(2.2)	7.4	8.8	(1.4)	10.0	9.1	7.0	9.3	7.2	7.3	7.5	7.7	7.8
Local area support costs	49.0	-	49.0	74.7	-	74.7	85.7	-	85.7	53.6	-	87.7	-	89.2	91.5	93.9	96.3	98.8
Corporate support costs	26.3	72.3	(45.9)	29.8	71.0	(41.1)	32.1	72.5	(40.4)	35.0	74.3	45.8	76.2	43.4	44.5	45.6	46.8	48.1
Indirect costs	50.6	77.4	(26.8)	83.5	73.4	10.0	59.2	70.8	(11.5)	21.4	72.6	41.7	74.4	42.2	43.3	44.4	45.5	46.7
<b>Corrective maintenance</b>																		
Labour	1.9	38.0	(36.1)	9.6	39.2	(29.6)	9.1	40.5	(31.4)	13.0	41.5	18.5	42.5	19.0	19.6	20.2	20.8	21.4
Contractors	30.1	36.0	(5.9)	62.1	37.2	24.9	62.4	37.8	24.6	80.0	38.8	65.0	39.7	66.6	68.2	69.8	71.5	73.2
Materials	1.9	12.0	(10.1)	6.7	12.4	(5.7)	8.5	12.6	(4.1)	8.0	12.9	10.0	13.2	10.2	10.5	10.7	11.0	11.2
Other	0.2	27.3	(27.1)	3.8	28.2	(24.4)	6.5	28.7	(22.1)	14.6	29.4	16.6	30.1	17.0	17.4	17.8	18.2	18.6
Local area support costs	1.5	-	1.5	8.3	-	8.3	7.8	-	7.8	10.1	-	23.7	-	24.1	24.7	25.3	26.0	26.7
Corporate support costs	2.2	41.1	(38.9)	6.1	40.6	(34.5)	6.4	41.5	(35.1)	10.6	42.5	12.0	43.6	11.4	11.7	12.0	12.3	12.6
Indirect costs	1.4	40.4	(39.0)	11.3	38.3	(27.1)	5.4	36.9	(31.5)	4.1	37.9	10.9	38.8	11.1	11.4	11.6	12.0	12.3
<b>Routine total</b>	<b>802.4</b>	<b>989.1</b>	<b>(186.8)</b>	<b>993.5</b>	<b>987.1</b>	<b>6.4</b>	<b>1135.9</b>	<b>996.6</b>	<b>139.3</b>	<b>1172.1</b>	<b>1021.5</b>	<b>1349.8</b>	<b>1047.0</b>	<b>1368.8</b>	<b>1403.2</b>	<b>1438.7</b>	<b>1475.1</b>	<b>1512.2</b>
<b>Non-routine spend</b>																		
Labour	107.3	14.8	92.4	119.5	56.7	62.8	167.9	92.9	75.0	181.5	61.7	36.4	137.8	82.5	45.0	51.9	9.8	141.9
Contractors	81.8	23.4	58.4	505.0	30.8	474.2	62.4	99.3	(36.9)	751.7	64.1	144.1	143.1	485.8	63.4	114.4	37.7	475.4
Materials	0.0	14.9	(14.9)	0.2	30.4	(30.2)	0.3	91.6	(91.4)	-	59.9	25.2	133.8	-	8.5	5.9	0.9	132.8
Other	(71.7)	9.9	(81.6)	154.6	18.7	135.9	17.6	54.2	(36.6)	27.1	34.0	-	75.9	5.4	16.3	24.6	2.8	74.3
Local area support costs	80.2	19.8	60.4	102.8	65.5	37.2	144.3	116.8	27.5	125.1	34.1	42.7	76.2	54.2	33.9	38.2	6.9	107.4
Corporate support costs	37.4	-	37.4	73.2	-	73.2	51.0	-	51.0	132.1	-	23.6	-	68.5	37.3	43.0	8.1	117.8
Indirect costs	82.1	18.3	63.8	107.6	63.7	43.9	99.8	100.3	(0.5)	56.7	31.4	21.5	70.1	45.0	26.5	29.0	5.2	78.5
<b>Non-routine total</b>	<b>317.0</b>	<b>101.0</b>	<b>216.0</b>	<b>1062.8</b>	<b>265.8</b>	<b>797.0</b>	<b>543.4</b>	<b>555.2</b>	<b>(11.8)</b>	<b>1274.2</b>	<b>285.2</b>	<b>293.5</b>	<b>636.8</b>	<b>741.4</b>	<b>230.9</b>	<b>307.0</b>	<b>71.5</b>	<b>1128.3</b>
<b>Total spend</b>	<b>1119.4</b>	<b>1090.2</b>	<b>29.2</b>	<b>2056.4</b>	<b>1252.9</b>	<b>803.4</b>	<b>1679.2</b>	<b>1551.7</b>	<b>127.5</b>	<b>2446.3</b>	<b>1306.7</b>	<b>1643.3</b>	<b>1683.8</b>	<b>2110.2</b>	<b>1634.1</b>	<b>1745.8</b>	<b>1546.6</b>	<b>2640.5</b>

1. Totals may not add due to rounding.

## Direct costs

Direct costs are those costs which are able to be directly attributable to either an asset or a service contract eg maintenance or insurance of an asset or the electricity and other operations costs for a service contract.

## Local area support costs

Local area support costs are spread across service contracts managed in each locality. They are costs which support local people doing their jobs eg regional accommodation costs, local administration support and training.

In 2018/19 the Pioneer River Bulk Water Service Contract is allocated 1.053 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 (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 Pioneer River Bulk Water Service Contract is allocated 1.279 per cent of the forecast total indirect costs. Increases in indirect costs allocated to Operations are largely driven by new IGEM costs, which are \$90,000 in 2018/19 for this Service Contract.

## Corporate support costs

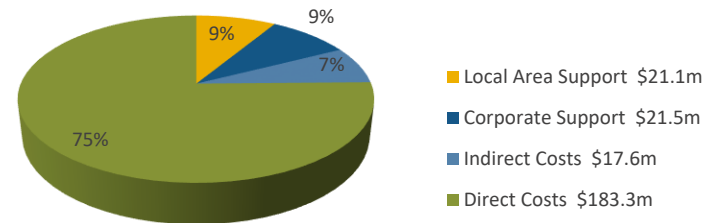
Corporate support costs are more generic than indirect costs and local area support costs, and are spread across all service contacts based on direct labour. They include the cost of human resources and payroll, information and communications technology, corporate communications, legal, property, finance,

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 Pioneer River Bulk Water Service Contract is allocated 0.550 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:

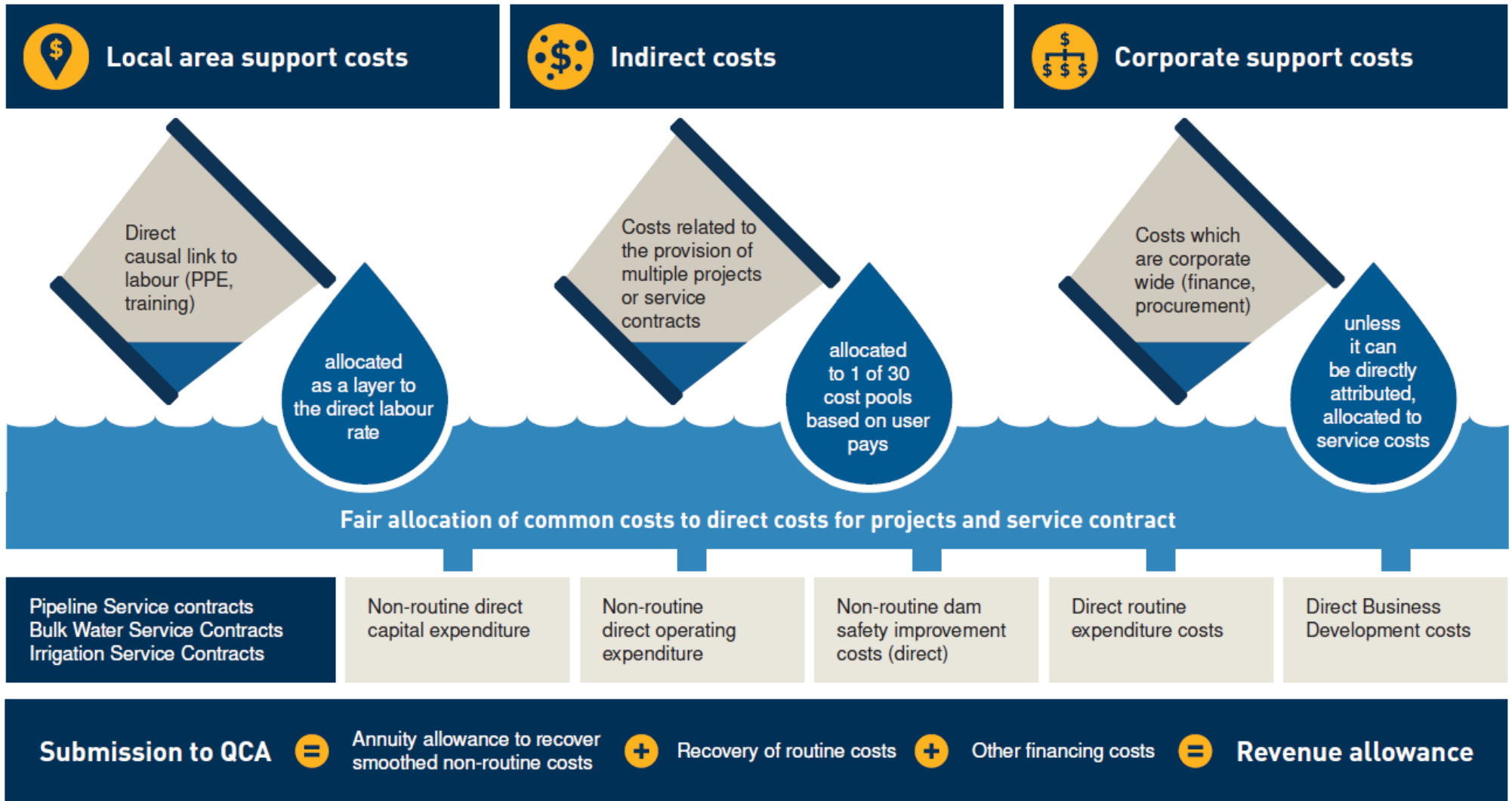
- removed the cascading of corporate overheads into indirect costs
- made the local overhead rate specific to each region
- simplified the cost drivers to labour only, removing the 5 per cent on direct cash costs excluding labour and electricity.

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 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 Pioneer River 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 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 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:

- 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.
- 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	Dumbleton and Mirani Weir – Fabri-dam decommissioning	The two remaining fabri-dams will be decommissioned. The rubber bags are still in place; however, the pipe works, blowers etc have already been removed. This is a direction from the state coroner.	174
	Dumbleton Weir – Left abutment protection works	The rock on the downstream left abutment scours during floods. This work will involve drilling anchors into the rock at various angles to bind the rock together to minimise the amount of scour.	78
	Palmtree Creek butterfly valve – Seal replacement	The butterfly valve seals need replacing. They were purchased in 2017/18 but could not be installed in the shutdown period. This project will install the new seals.	11
	Other works	There are 2 other non-routine projects for 2018/19.	30
	<b>2018/19 Total</b>		<b>293</b>
2019/20	Teemburra Dam – Site hut replacement	The site hut at the dam is not adequate to accommodate staff for 2-4 days during Emergency Action Plan events. There are no showers or toilets, and cooking and sleeping facilities are basic. A new hut will be built or brought in.	148
	Teemburra Dam – Regulating valves	Rock below the regulating valves is scouring when releases are made. The scour is now penetrating back under the rock protection. A concrete slab will be properly designed and constructed.	115
	Teemburra Dam – Access road	A slip adjacent to the main dam access road occurred in 2016. Maintaining access is critical to operate the dam and for Emergency Action Plan purposes. This project will re-align the access road away from the slip.	98
	Teemburra Dam crest seepage – Ground penetrating radar (GPR) survey	Seepage through the main dam crest has increased slowly over the past few years so it is thought there are voids or fissures developing in the rock. A GPR survey will confirm this and provide recommendations for filling the voids, if any are found.	78

Year	Project Title	Project Scope	Budget (\$'000)
	Teemburra Dam – Spillway anchors	A number of spillway anchors will be pulled out and the force used to do that assessed against design parameters to determine if they are still anchoring the concrete to the foundation rock. Additional anchors may be required if the tests are not satisfactory.	69
	Other works	There are 12 other non-routine projects for 2019/20.	233
	<b>2019/20 Total</b>		<b>741</b>
<b>2020/21</b>	Teemburra Dam – Comprehensive inspection	SunWater conducts comprehensive inspection of its dams and weirs every five years. Referable dams such as Teemburra Dam are required to undergo a comprehensive inspection as part of the dam safety condition schedules. The condition data will be updated to assist with better planning of non-routine maintenance items.	132
	Palmtree Creek – Cathodic protection (CP) replacement	This is an allowance to replace failed components of the CP system on the pipeline. The CP system protects the pipe from corrosion. The full scope will be better understood after the annual assessment.	38
	Teemburra Dam spillway – Drain clean out	SunWater's standard policy is to clean out all pressure reducing drains every five years. This is an allowance to clean the drains in the spillway face at the dam to prevent pressure build up. A build-up of pressure could cause additional damage to the rock or concrete.	30
	Other works	There are 2 other non-routine projects for 2020/21.	31
	<b>2020/21 Total</b>		<b>231</b>
<b>2021/22</b>	Marian Weir – Cofferdam removal	The failed coffer dam at Marian Weir will be removed. SunWater is waiting on Workplace Health & Safety Queensland approval to do so.	116
	Marian, Mirani and Dumbleton Weirs – Comprehensive inspections	SunWater conducts comprehensive inspection of its dams and weirs every five years. The condition data will be updated to assist with better planning of non-routine maintenance items.	137
	Teemburra Saddle Dam 2 – Guard valve refurbishment	The guard valve will be patch painted and new seals installed. Minor hydraulic repairs will also be done to ensure the valve operates as it should.	33
	Other works	There are 2 other non-routine projects for 2021/22.	20
	<b>2021/22 Total</b>		<b>306</b>

Year	Project Title	Project Scope	Budget (\$'000)
<b>2022/23</b>	Teemburra Main Dam – Baulks and trash racks	Condition assessment of the baulks and trash racks indicate that in about 2022/23 they will need patch painting to remove corrosion to extend their life.	40
	Teemburra Saddle Dam 2 – Back up battery replacement	Battery systems of this type usually last about 8-10 years. These were last replaced in 2014 so it is prudent to plan for their replacement in 2022/23. A condition assessment in 2021/22 will confirm the need for this.	21
	Other works	There are 2 other non-routine projects for 2022/23.	10
	<b>2022/23 Total</b>		<b>71</b>
<b>2023/24</b>	Teemburra Dam – Spillway rock repairs	This an allowance to refurbish the spillway rock at the main dam. The 2017/18 comprehensive risk assessment will determine if this needs to proceed.	410
	Dumbleton Weir – Control equipment	The control equipment at Dumbleton Weir is coming to the end of its life.	341
	Dumbleton Weir – Upstream rock protection refurbishment	This is an allowance to refurbish the upstream rock protection at Dumbleton Weir. A condition assessment in 2022/23 will confirm if this needs to proceed.	68
	Dumbleton Weir – Fish lock gate repairs	This is an allowance to repaint and replace seals on the fishway gates at Dumbleton Weir. A condition assessment in 2022/23 will confirm the scope of works.	41
	Teemburra Saddle Dam 2 – Trash rack repairs	This is an allowance to repaint and repair the trash racks on Saddle Dam 2 at Teemburra Dam. A condition assessment in 2022/23 will confirm the scope of works.	29
	Other works	There are 14 other non-routine projects for 2023/24.	239
	<b>2023/24 Total</b>		<b>1128</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

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

We have:

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

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 – Restatement of Table 2 from the 2019 Network Service Plan**

Product		2018/19 (\$/ML)	Cost (\$/ML) <sup>1,2,3</sup>	Subsidy (\$/ML)
Medium Priority Allocation Charge	Bulk Water Charge – Part A (fixed charge based upon entitlement)	14.45	15.68	1.23
Medium Priority Allocation Water	Bulk Water Charge – Part B (variable charge based upon usage)	3.05	4.02	0.97

1. Costs reflect lower bound cost recovery, ie recovery of future replacement and ongoing maintenance and operations. Charges do not allow for any returns on existing assets.
2. The notional High Priority Allocation Charge cost per megalitre is \$31.93.
3. Costs reflect a revised Medium Priority Headworks Utilisation Factor of 38 per cent (previously 44 per cent at the time of the 2012 review).

**Table 2: Routine operating expenditure<sup>1</sup> – Restatement of Table 5 from the 2019 Network Service Plan**

	2016/17			2017/18 <sup>2</sup>		2018/19 <sup>2</sup>		2019/20	2020/21	2021/22	2022/23	2023/24
	SunWater Actual \$'000	QCA Recommended \$'000	Variance \$'000	SunWater Actual \$'000	2016/17 QCA Recommended (adjusted) \$'000	SunWater Forecast \$'000	2016/17 QCA Recommended (adjusted) \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000	SunWater Forecast \$'000
Electricity	4.5	5.2	(0.7)	4.1	5.4	4.3	5.5	4.0	3.9	4.0	4.4	4.4
Insurance	345.8	97.4	248.4	314.8	99.8	335.4	102.3	342.2	350.1	358.2	366.4	374.8
Operations	318.2	452.1	(133.9)	363.7	463.4	485.6	475.0	489.1	501.7	514.6	527.6	541.0
<b>Operations Total</b>	<b>668.5</b>	<b>554.8</b>	<b>113.8</b>	<b>682.5</b>	<b>568.6</b>	<b>825.3</b>	<b>582.8</b>	<b>835.3</b>	<b>855.7</b>	<b>876.8</b>	<b>898.4</b>	<b>920.1</b>
Preventative maintenance	361.2	243.8	117.4	390.7	249.9	367.7	256.2	371.5	380.9	390.6	400.3	410.3
Corrective maintenance	106.2	198.0	(91.8)	121.9	202.9	156.8	208.0	159.0	163.0	167.0	171.0	175.2
<b>Routine Total</b>	<b>1135.9</b>	<b>996.6</b>	<b>139.3</b>	<b>1195.0</b>	<b>1021.5</b>	<b>1349.8</b>	<b>1047.0</b>	<b>1365.8</b>	<b>1399.5</b>	<b>1434.4</b>	<b>1469.8</b>	<b>1505.7</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: Dam improvement program – Restatement of Table 6 from the 2019 Network Service Plan**

Pioneer River Service Contract	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
DIP Expenditure <sup>1</sup>	766.9	3862.1	402.8	-	-
DIP Contribution <sup>2</sup>	-	78.2	166.4	178.8	183.2
DIP Contribution - % of Total Costs	0.0%	3.2%	6.4%	6.6%	6.6%

1. DIP expenditure reflects approximately 50 per cent of the current cost estimates, as a detailed business case has not yet been completed.
2. The DIP contribution is based on an “as incurred” approach for transparency of potential cost impacts on customers to 2023/24.

**Table 4: Annuity balance – Restatement of Table 8 from the 2019 Network Service Plan**

	2016/17 Actual \$'000	2017/18 Actual \$'000	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
<b>Annuity</b>								
Opening balance <sup>1</sup>	(3717.0)	(4081.7)	(4721.0)	(4887.9)	(5121.6)	(4697.5)	(4267.0)	(3511.7)
Spend	(543.4)	(802.0)	(293.5)	(741.4)	(230.9)	(307.0)	(71.5)	(1128.3)
Insurance proceeds receipts (if applicable)								
Prior year	-	-	-	-	-	-	-	-
Current year	-	-	-	-	-	-	-	-
Annuity contribution <sup>2</sup>	457.0	468.4	480.1	490.9	954.5	1012.1	1076.3	1099.5
Interest/financing costs	(278.4)	(305.7)	(353.6)	(366.1)	(299.4)	(274.7)	(249.5)	(205.3)
<b>SunWater – Closing balance</b>	<b>(4081.7)</b>	<b>(4721.0)</b>	<b>(4887.9)</b>	<b>(5504.5)</b>	<b>(4697.5)</b>	<b>(4267.0)</b>	<b>(3511.7)</b>	<b>(3745.8)</b>
<b>QCA – Closing balance</b>	<b>(1782.8)</b>	<b>(1733.1)</b>	<b>(2019.6)</b>					
Difference	(2299.0)	(2987.9)	(2868.4)					

1. The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. Table 5 provides further details.
2. The annuity contribution is included in the prices paid by customers. It was set by the QCA for 2012/13 to 2016/17 and is rolled forward with the Consumer Price Index (CPI) for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based on SunWater's forecast.

**Table 5: Adjustments to 2020/21 opening annuity balance**

Adjustment	\$'000
Actual spend adjustment	(25)
Annuity income difference	256
Intersafe project spend adjustment	0
Interest difference	(28)
Alignment to previously reported data	5
Interest	176
<b>Total</b>	<b>383</b>

**Table 6: Cost building blocks and notional cost allocations**

	2018/19 Forecast \$'000	2019/20 Forecast \$'000	2020/21 Forecast \$'000	2021/22 Forecast \$'000	2022/23 Forecast \$'000	2023/24 Forecast \$'000
<b>Cost building blocks</b>						
Routine costs	1349.8	1365.8	1399.5	1434.4	1469.8	1505.7
Non-routine costs (Annuity contribution)	480.1	490.9	954.5	1012.1	1076.3	1099.5
Dam improvement program <sup>1</sup>	-	-	-	-	-	-
Working capital	1.2	1.3	-	-	-	-
Revenue offsets	(1.0)	(1.0)	(1.1)	(1.1)	(1.1)	(1.1)
Transfers (Distribution losses)	-	-	-	-	-	-
<b>Total costs</b>	<b>1830.1</b>	<b>1857.0</b>	<b>2352.9</b>	<b>2445.4</b>	<b>2545.0</b>	<b>2604.1</b>
<b>Notional cost allocations</b>						
Irrigation customers	807.7	819.2	1010.7	1048.7	1089.6	1115.0
Urban/Industrial customers	613.7	622.9	805.7	838.4	873.6	893.8
SunWater	408.7	414.8	536.6	558.3	581.8	595.2
<b>Total costs</b>	<b>1830.1</b>	<b>1857.0</b>	<b>2352.9</b>	<b>2445.4</b>	<b>2545.0</b>	<b>2604.1</b>

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

**Table 7: Historical actual water usage**

<b>Year</b>	<b>Usage (ML)</b>
2002/03	58,888
2003/04	32,409
2004/05	22,689
2005/06	25,711
2006/07	18,956
2007/08	21,102
2008/09	22,613
2009/10	32,745
2010/11	12,439
2011/12	18,753
2012/13	24,296
2013/14	27,604
2014/15	30,396
2015/16	27,894
2016/17	16,576
<b>15-year average</b>	<b>26,205</b>