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# 2016/17 Annual Network Service Plan

## Lower Mary Distribution

July 2016

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## Introduction

A recommendation from the 2013-17 review of SunWater's irrigation pricing was for SunWater to produce annual Network Service Plans (NSPs) to help keep customers informed throughout the pricing period. These annual NSPs will focus on both routine expenditure (opex) and non-routine expenditure. In particular, the NSPs will cover:

- past performance for routine opex and non-routine expenditure,
- forecast opex and non-routine for the approaching year, and
- the long-term outlook for material non-routine spend.

This NSP compares SunWater's actuals for 2013, 2014 and 2015, budget for 2016 and budget for 2017 to the targets from the QCA's final report. The 2013-16 figures are provided for information only, with the focus the budget figures for 2017. The 2017 budget has been finalised following customer and shareholder consultation.

SunWater values customer feedback and will publish all submissions and SunWater's responses on our website. Customers can provide their feedback via email or post using one of the following addresses:

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

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

# Financial Summary

**Table 1: Operating Revenue Less Spend**

Lower Mary IS		2013	2014	2015	2016	2017
	Table reference	Actual \$000	Actual \$000	Actual \$000	Forecast \$000	Budget \$000
Revenue	3	1,215	1,600	1,084	1,151	1,028
Less - Routine Expenditure	4 & 7	744	1,422	953	1,002	1,031
Less - Non-Routine Expenditure						
• Annuity Funded	5, 6 & 7	191	17	33	111	107
• Non Annuity Funded	5	-	7	15	-	-
Surplus (Deficit)		280	154	83	39	(110)

Table 1 is a high level summary of the budgeted financial performance of the service contract. This document provides further detail of the planned spend on routine functions and non-routine projects across the 2017 year together with an estimate of revenue expected to be generated.

**Figure 1: Breakdown of Irrigation Scheme Costs – 2017 Budget**

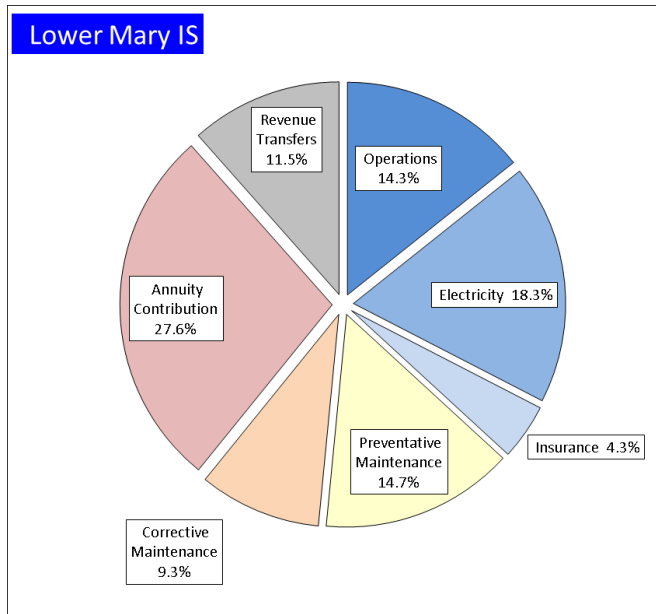


Figure 1 shows a high level summary of scheme costs and provides an indication of where revenue from irrigation water charges is applied. The item “Annuity Contribution” refers to the component of irrigation water charges that is applied toward the renewals annuity each year. The item “Revenue Transfers” refers to the contribution towards the cost of the bulk water scheme.

**Table 2: Water Data**

	No. of Customers	Water Entitlements
		ML
1. Industrial		20
2. Irrigation		9,962
3. Urban		0
5. SunWater		10,892
Total	84	20,874

QCA Assumed Water Usage

42.6%

The 2017 budget is compiled taking onto account the QCA water use assumptions outlined above.

## Revenue

**Table 3: Revenue**

Lower Mary IS	2013	2014	2015	2016	2017
	Actual \$000	Actual \$000	Actual \$000	Forecast \$000	Budget \$000
Irrigation	592	917	378	391	468
Industrial	2	2	2	2	2
Urban	-	-	-	-	-
Irrigation CSO	753	753	751	749	745
Revenue Transfers	(135)	(81)	(71)	(74)	(196)
Drainage	-	-	-	-	-
Other	3	7	14	9	9
Insurance Proceeds - Flood	-	-	11	74	-
<b>Revenue Total</b>	<b>1,215</b>	<b>1,600</b>	<b>1,084</b>	<b>1,151</b>	<b>1,028</b>

Note: Following feedback from customers, SunWater has unbundled bulk water charges from distribution system charges. This means that total revenue figures in past Performance Reports and NSPs may not match those above.

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 Supply Scheme 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. The revenue transfer above does not include the bulk water costs of SunWater's channel distribution system losses.

## Routine Expenditure

**Table 4: Routine Operating Expenditure**

Lower Mary IS	2013			2014			2015			2016			2017				2013 to 2017			
	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Forecast \$000	QCA Target \$000	Variance \$000	SW Budget \$000	QCA Target \$000	Variance \$000	% of target	SW Forecast \$000	QCA Target \$000	Variance \$000	% of target
Operations	221	208	(13)	441	215	(226)	316	218	(98)	253	218	(35)	242	216	(26)	112	1,473	1,075	(398)	137
Electricity	200	147	(53)	504	157	(347)	204	168	(36)	295	182	(113)	309	195	(115)	159	1,513	850	(663)	178
Insurance	0	43	43	88	44	(44)	67	45	(22)	68	46	(22)	72	46	(26)	156	295	224	(72)	132
Operations Total	421	398	(23)	1,034	417	(617)	587	431	(156)	615	446	(170)	624	457	(167)	137	3,281	2,149	(1,133)	153
Preventative Maintenance	176	240	65	159	248	88	242	253	11	260	255	(5)	249	252	3	99	1,086	1,248	162	87
Corrective Maintenance	146	149	3	229	153	(76)	124	157	33	127	159	32	158	159	1	99	784	777	(7)	101
Routine Total	744	788	44	1,422	818	(604)	953	841	(113)	1,002	859	(143)	1,031	868	(163)	119	5,151	4,173	(978)	123

The budget routine spend is 19% above the QCA's target for 2017 however the budget falls to 103% of target when the above-QCA increases in insurance and electricity are taken into account.

### Operations

Operation activities include the day-to-day costs of the administration and management of the scheme, water delivery and meeting compliance obligations. Specific activities include the direct and non-direct cost of<sup>1</sup>:

- Scheduling and delivering water, including processing water orders, releasing water, operating pump stations, regulation and monitoring of channel flows and monitoring of 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;
- Scheme management, including licences and permits, rates, land management, planning and reporting;
- Insurance;
- Monitoring the security of infrastructure and unauthorised access and trespass;
- Managing public relations associated with the scheme; and
- Managing enquiries from adjoining landholders, and in some cases developers, that require input and negotiations with SunWater's property and legal sections to resolve issues.

<sup>1</sup> Activities listed will not apply to all service contracts.

The operations budget in 2017 is 37% above the QCA target, however this is largely due to the increases in insurance costs and electricity being higher than allowed for by the QCA. Increased premiums followed flood events that have occurred in the past few years in Queensland. The budget for operations drops to 106% of the QCA target when the electricity and insurance over-runs are taken into account.

Electricity costs are budgeted 59% higher than the QCA target in 2017. The 2017 budget includes a 5% escalation of electricity prices, however indications are that after several years of above-QCA price increases, the transitional electricity tariffs will not escalate by 5% in 2016/17. This may relieve the price pressure on SunWater and our customers but prices remain above the level allowed by the QCA. In addition, SunWater has performed annual electricity reviews on many of its sites and moved sites to lower-priced tariffs where cost savings were apparent. This has served to further reduce the impact of previous electricity cost increases.

## **Preventive Maintenance**

Preventive maintenance is maintaining the ongoing operational performance and service capacity of physical assets to the required standard. Preventive maintenance is cyclical in nature with a typical interval of 12 months or less. Preventive maintenance activities are based on the updated work instructions developed for operating the scheme and include an estimate of the resources required to implement that scope of work. Preventive maintenance includes<sup>2</sup>:

- Condition monitoring – the inspection, testing or measurement of physical assets to report and record its condition and performance for determination of 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 normally expected to be carried out routinely on physical assets including valves, cranes, sump pumps and associated equipment; and
- Weed control – which includes the following activities:
  - Slashing channels and drains;
  - Acrolein treatment of channels;
  - Copper Sulphate treatment; and
  - Spraying and other activities to control operational and noxious weeds within channel and drainage reserves and balancing storages and other land managed by SunWater

Preventive maintenance is budgeted at the QCA's target for 2017.

## **Corrective Maintenance**

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. Forecasts include provision for labour, materials and plant hire.

The corrective maintenance forecast does not include any 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.

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<sup>2</sup> Activities listed will not apply to all service contracts



There are two types of corrective maintenance – scheduled and emergency<sup>3</sup>:

- Scheduled corrective maintenance is maintenance that can be planned and scheduled, and includes:
  - Channels
    - De-silting channels and catch drains;
    - Erosion control and repair of rock protection works;
    - Repair fencing;
    - Repair concrete structures; and
    - Repair regulator gates, control valves, etc.
  - Drains
    - De-silting drains;
    - Erosion control and repair of rock protection works;
    - Repair fencing; and
    - Repair concrete structures.
  - Pipelines
    - Pipe breaks
    - Repair air valves, scour valves, etc.;
    - Erosion control and repair of rock protection works; and
    - Repair concrete structures.
  - Scheme Roads
    - Repair pot holes;
    - Grade roads; and
    - Repair, replace and paint guide posts and signs.
  - Pump stations
    - Repair pumps and motors;
    - De-silt intake structures;
    - Repair concrete structure; and
    - Repair control building.
  - Storages (balancing storages and reservoirs)
    - Repair control gates and valves;
    - Repair walls, embankments and spillways; and
    - Repair concrete structures.

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<sup>3</sup> Activities listed will not apply to all service contracts.

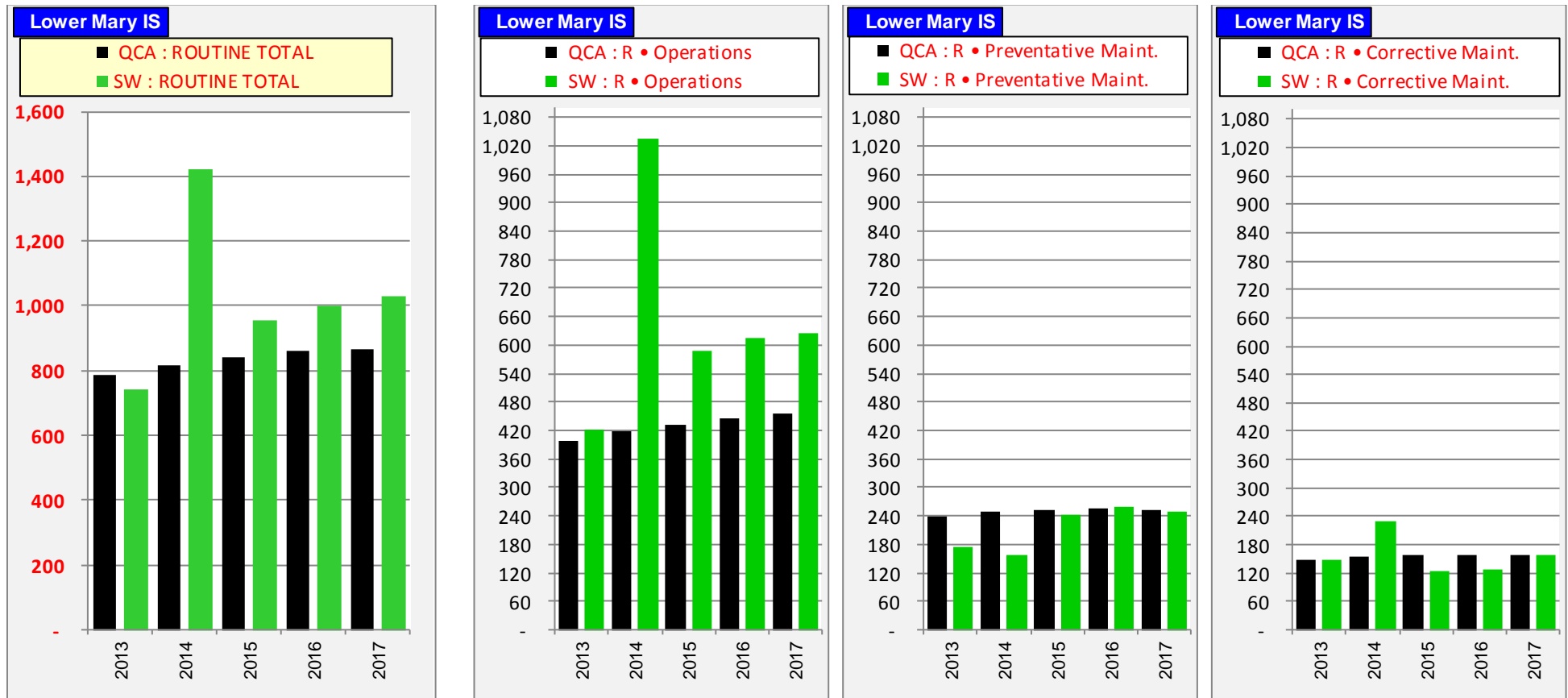
- Meters
  - Repair bulk water meters; and
  - Repair customer meters.
- Emergency corrective maintenance is maintenance that has to be carried out immediately to restore normal operation or supply to customers or to meet regulatory obligations (e.g. rectify a safety hazard) and includes:
  - Repair or correction of pump station faults;
  - Repair or correction of channel faults;
  - Repair or correction of pipeline faults; and
  - Response to theft or vandalism associated with scheme assets.

Corrective maintenance is budgeted within the QCA's target for 2017.

## Routine Cost – Summary and Charts

In summary the key challenges in managing routine cost lie with reigning in input cost like electricity and insurance. The information in Table 4 above is re-presented in the charts below to graphically show SunWater’s performance against the QCA targets.

**Figure 2: Routine Expenditure by Activity compared to QCA Target (\$'000)**



## Non-Routine Expenditure

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, the most recent of which was completed in February 2016; items requiring immediate maintenance or replacement are included in the budget for the following year.

While the immediate program for the next year's budget is well defined; the further into the planning timeline, the more uncertain the estimates become. Consequently, the program of works is not a specific forecast of when individual projects are expected to be executed but rather it is portfolio level estimate of works based on the best-available risk and condition information for the service contract as a whole. This information feeds into calculation of the annuity to fund renewals. Having an annuity funding arrangement acknowledges that a long-term view of renewals spend is required to ensure adequate funding and to address issues such as inter-generational equity.

The QCA targets were set against an indicative program of works from the 2010-11 year. While this was the best estimate of expected work at the time, in some cases, the QCA's funding allowance for renewals work across the price path does not cover the total expenditure required to maintain asset condition to the required standard. In addition, there have been unexpected events, such as floods, that were not allowed for in the QCA's annuity funding allowance.

SunWater is focusing effort on reviewing renewals profiles so that assets are maintained to the required standard with the minimum spend. This review 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. This is expected to reduce the renewals profile going forward, reducing upward pressure on water charges.

## Non-Routine Budget

The budget non-routine spend for 2017 is shown in the table below, along with the actual spend for 2013, 2014, 2015 and the budget spend for 2016. There have been significant works in this service contract to repair flood damage which means that the QCA's 5-year target for 2013-17 will be exceeded. Flood repair works are unplanned and were not allowed for in the QCA's targets.

**Table 5: Non-Routine Expenditure**

Lower Mary IS	2013			2014			2015			2016			2017				2013 to 2017			
	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Forecast \$000	QCA Target \$000	Variance \$000	SW Budget \$000	QCA Target \$000	Variance \$000	% of target	SW Forecast \$000	QCA Target \$000	Variance \$000	% of target
<b>Annuity Funded</b>																				
Operations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preventative Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corrective Maintenance (Flood)	90	-	(90)	(1)	-	1	-	-	-	-	-	-	-	-	-	-	89	-	(89)	-
R&E	101	0	(101)	18	65	48	33	90	57	111	28	(83)	107	50	(57)	215	370	233	(137)	159
Non-routine Total	191	0	(191)	17	65	49	33	90	57	111	28	(83)	107	50	(57)	215	459	233	(226)	197
<b>Non Annuity Funded</b>	-			7			15			-			-				22			

The details for the five major projects planned for 2017 are provided below:

**Table 6: Non-Routine Projects 2017**

Project Title	Project Scope	2017 Budget (\$'000)
Repair balancing storage embankment – WALKERS POINT BALANCING STORAGE	Install toe drainage and measurement system to manage seepage and ensure embankment stability.	100
Replace Screen – MAIN ROAD BALANCING STORAGE	Replace Screen on Outlet structure based on standard asset life and 2011 condition assessment.	7
Other works	There are no other non-routine projects for 2017.	0
Total		107

## Annuity Balance

The estimated 2016 and 2017 annuity balances are shown below; the annuity contribution shown has been set by the QCA. SunWater aims to limit the annuity spend to the QCA's targets over the 5-year price path in order to manage the annuity balance to reasonable levels.

The impacts of budgeted non-routine spend on the annuity balance for 2017 is shown in the following table.

**Table 7: Annuity Balance**

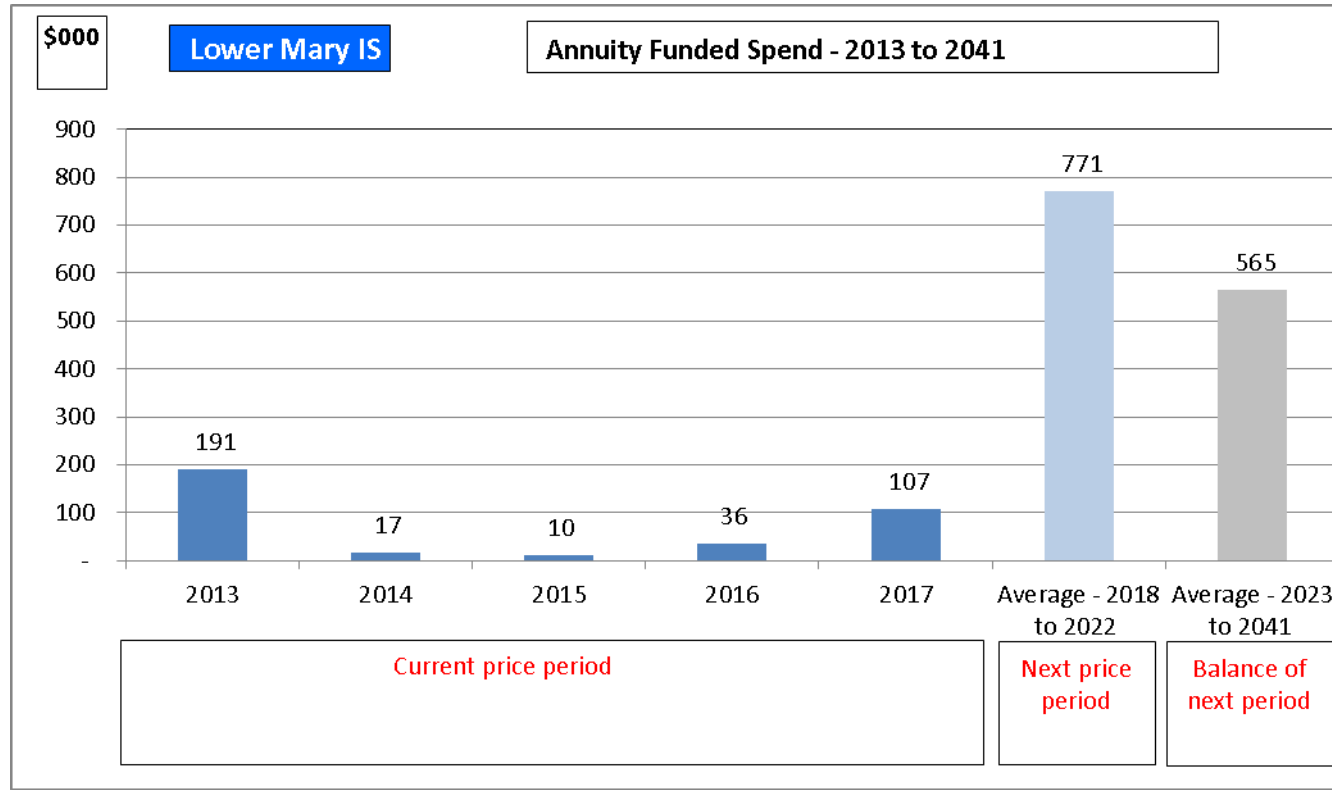
Lower Mary IS		2013	2014	2015	2016	2017	2013 to 2017
	Table reference	Actual \$000	Actual \$000	Actual \$000	Forecast \$000	Budget \$000	Forecast \$000
<b>Annuity</b>							
Opening Balance	See below	(462)	(241)	177	638	1,115	(462)
Net Spend		(191)	(17)	(10)	(36)	(107)	(362)
Annuity Contribution		447	452	458	466	468	2,291
Interest		(35)	(18)	13	48	84	92
SunWater - Closing Balance		(241)	177	638	1,115	1,559	1,559
QCA - Closing Balance	(185)	188	570	1,051	1,547	1,547	
Difference		(56)	(11)	68	64	12	12
<b>Net Spend Analysis</b>							
Spend	5 & 7	(191)	(17)	(33)	(111)	(107)	(459)
Insurance Proceeds Receipts							
• Prior Year		-	-	12	-	-	12
• Current Year		-	-	11	74	-	85
Net Spend		(191)	(17)	(10)	(36)	(107)	(362)

\* All 2016 and 2017 figures are subject to change once actual spend is known.

## Overview of Annuity Funded Non-Routine Projects 2013-41

The renewals annuity is calculated over a 20-year planning period; given that the following pricing period ends in 2022, the estimated renewals spend out until 2041 will affect the next pricing review. The estimated renewals expenditure out to 2041 is shown in the chart following.

Figure 3: Annuity Expenditure 2013-41





All material renewals items out until 2041 are discussed in the sections following. Materiality is defined as >10% of the present value of the period in question. SunWater will develop options analyses for all material items in the annuity calculation planning period. These reports will be tailored to suit project complexity and budget, with detailed options analyses being completed within the current and following 5-year pricing periods and high-level options analyses for the 20-year period beyond the next price path. The materiality tests will be applied each year as part of annual planning process. Given that there will be project variations, some items will no longer require options analysis in future years and new items may join the list.

## **Material Projects 2017-18**

### **Repair Balancing Storage Embankment – WALKERS POINT BALANCING STORAGE**

Year: 2017

Current estimate: \$100k

Options analysis completed: No

This project is to install a toe drainage and measurement system enabling management of seepage and to ensure embankment stability.

## **Material Projects 2019-23**

The evenness in the spread of estimated project costs means there are no projects which exceed the materiality threshold for this service contract for the 2023-41 period.

## **Material Projects 2024-41**

The evenness in the spread of estimated project costs means there are no projects which exceed the materiality threshold for this service contract for the 2023-41 period.

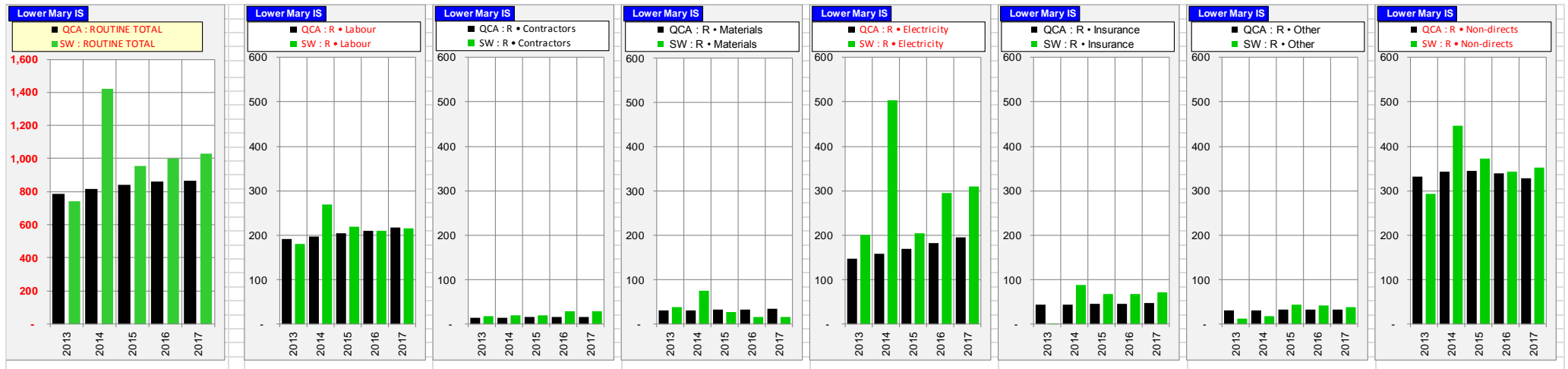
# Appendix 1: Total Expenditure by Expense Type

## Table 8: Expenditure for Activity by Type

Lower Mary IS	2013			2014			2015			2016			2017			2013 to 2017		
	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Forecast \$000	QCA Target \$000	Variance \$000	SW Budget \$000	QCA Target \$000	Variance \$000	SW Forecast \$000	QCA Target \$000	Variance \$000
Revenue	1,215			1,600			1,084			1,151			1,028			6,079		
<b>Routine Spend</b>																		
<b>Operations</b>																		
Labour	78	73	(5)	154	75	(79)	109	77	(31)	87	80	(7)	82	83	0	510	388	(122)
Contractors	-	-	-	0	-	(0)	0	-	(0)	-	-	-	-	-	-	0	-	(0)
Materials	2	0	(2)	19	1	(18)	0	1	0	1	1	(0)	1	1	(0)	24	3	(21)
Electricity	200	147	(53)	504	157	(347)	204	168	(36)	295	182	(113)	309	195	(115)	1,513	850	(663)
Insurance	0	43	43	88	44	(44)	67	45	(22)	68	46	(22)	72	46	(26)	295	224	(72)
Other	13	7	(6)	14	7	(7)	19	7	(11)	22	7	(15)	22	8	(14)	89	37	(53)
Non-directs	128	127	(1)	254	133	(122)	188	132	(55)	143	130	(13)	137	125	(12)	850	648	(202)
	421	398	(23)	1,034	417	(617)	587	431	(156)	615	446	(170)	624	457	(167)	3,281	2,149	(1,133)
<b>Preventative Maintenance</b>																		
Labour	57	78	21	52	80	28	76	83	7	88	85	(2)	84	88	5	356	414	58
Contractors	15	7	(8)	10	7	(3)	14	7	(7)	18	8	(11)	18	8	(11)	76	37	(39)
Materials	14	13	(1)	10	14	4	7	14	7	5	15	9	5	15	10	42	71	30
Other	-	6	6	3	6	4	19	6	(13)	7	7	(0)	7	7	0	35	32	(3)
Non-directs	90	137	47	85	140	55	126	142	17	142	140	(1)	136	135	(1)	577	694	117
	176	240	65	159	248	88	242	253	11	260	255	(5)	249	252	3	1,086	1,248	162
<b>Corrective Maintenance</b>																		
Labour	46	41	(5)	64	42	(22)	34	43	9	35	45	9	49	46	(2)	227	217	(11)
Contractors	1	7	6	9	8	(1)	6	8	2	10	8	(2)	10	8	(2)	36	39	4
Materials	23	17	(6)	47	17	(30)	19	18	(1)	10	18	8	10	18	8	109	88	(21)
Other	0	17	17	2	17	15	7	18	11	13	19	6	10	19	9	32	90	58
Non-directs	76	67	(9)	107	69	(38)	59	70	11	58	69	11	79	67	(12)	380	343	(36)
	146	149	3	229	153	(76)	124	157	33	127	159	32	158	159	1	784	777	(7)
<b>Routine - total</b>	<b>744</b>	<b>788</b>	<b>44</b>	<b>1,422</b>	<b>818</b>	<b>(604)</b>	<b>953</b>	<b>841</b>	<b>(113)</b>	<b>1,002</b>	<b>859</b>	<b>(143)</b>	<b>1,031</b>	<b>868</b>	<b>(163)</b>	<b>5,151</b>	<b>4,173</b>	<b>(978)</b>
<b>Non-Routine Spend</b>																		
Labour	32	-	(32)	-	-	-	6	16	10	9	5	(4)	12	9	(2)	59	30	(29)
Contractors	85	-	(85)	9	-	(9)	9	17	9	70	5	(64)	73	10	(64)	246	32	(213)
Materials	6	-	(6)	7	-	(7)	8	17	10	12	5	(7)	-	10	10	33	32	(1)
Other	13	-	(13)	(1)	-	1	-	9	9	1	3	2	-	5	5	14	18	4
Non-directs	56	0	(56)	1	65	65	11	31	20	19	9	(10)	22	16	(7)	108	121	12
<b>Non-Routine - Total</b>	<b>191</b>	<b>0</b>	<b>(191)</b>	<b>17</b>	<b>65</b>	<b>49</b>	<b>33</b>	<b>90</b>	<b>57</b>	<b>111</b>	<b>28</b>	<b>(83)</b>	<b>107</b>	<b>50</b>	<b>(57)</b>	<b>459</b>	<b>233</b>	<b>(226)</b>
<b>Total Regulated Spend</b>	<b>935</b>	<b>788</b>	<b>(147)</b>	<b>1,438</b>	<b>883</b>	<b>(555)</b>	<b>987</b>	<b>931</b>	<b>(55)</b>	<b>1,112</b>	<b>887</b>	<b>(226)</b>	<b>1,138</b>	<b>918</b>	<b>(220)</b>	<b>5,611</b>	<b>4,406</b>	<b>(1,204)</b>
<b>Non Annuity Funded Spend</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7</b>	<b>-</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>22</b>	<b>-</b>	<b>-</b>
<b>Surplus (Deficit)</b>	<b>280</b>	<b>-</b>	<b>-</b>	<b>154</b>	<b>-</b>	<b>-</b>	<b>83</b>	<b>-</b>	<b>-</b>	<b>39</b>	<b>-</b>	<b>-</b>	<b>(110)</b>	<b>-</b>	<b>-</b>	<b>446</b>	<b>-</b>	<b>-</b>

The charts below graphically report routine costs by expense type compared to the QCA target.

**Figure 4: Routine Expenditure by Expense Type (\$'000)**



## Notes

All financial figures in this report are presented in nominal dollars.

Although the QCA set cost targets based on assumed inflation of 2.5%, most of the financial figures in the QCA's final report on SunWater's irrigation prices were presented in real dollars (\$2011). To convert the QCA reported real dollars to nominal dollars multiply by the conversion factors listed below. The conversion factors are based on the QCA's assumed inflation rate of 2.5% p.a. For comparison, the QCA conversion factors based on assumed inflation of 2.5% are compared with conversion factors based on actual inflation as measured by the Brisbane All Groups Consumer Price Index taken in March each year.

**Table 9: Conversion Factors for real \$2011 to Nominal Dollars**

	2013	2014	2015	2016	2017
QCA Conversion Factor	1.0510	1.0770	1.1040	1.1310	1.1600
Accumulative March Quarter CPI	1.0494	1.0714	1.1050	1.1208	1.1397

### Disclaimer

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