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2016/17 Annual Network Service Plan

Lower Fitzroy Bulk Water

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

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

Financial Summary

Table 1: Operating Revenue Less Spend

Lower Fitzroy WS		2013	2014	2015	2016	2017
	Table reference	Actual \$000	Actual \$000	Actual \$000	Forecast \$000	Budget \$000
Revenue	3	335	395	919	430	413
Less - Routine Expenditure	4 & 7	171	207	155	319	256
Less - Non-Routine Expenditure						
• Annuity Funded	5, 6 & 7	5	161	652	-	118
• Non Annuity Funded	5	-	-	-	-	-
Surplus (Deficit)		159	27	111	111	39

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 Total Scheme Costs – 2017 Budget

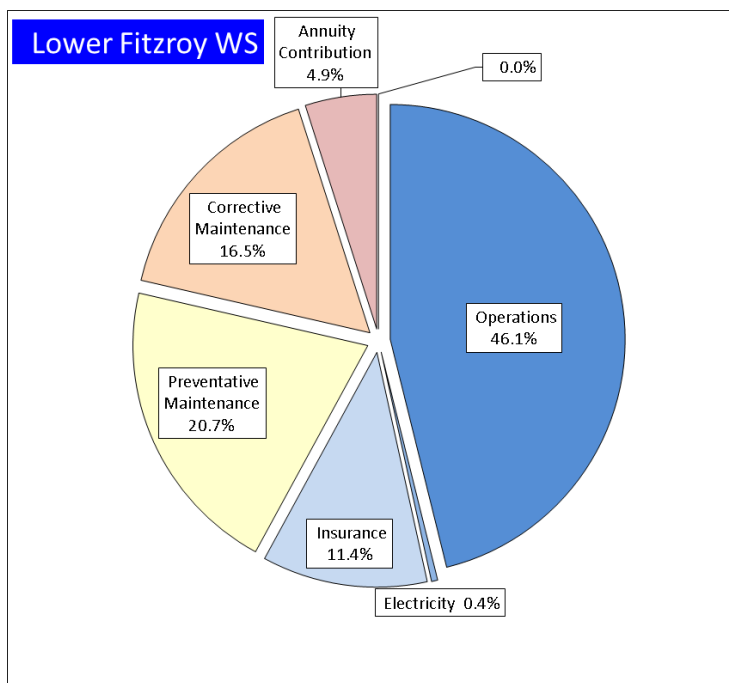


Figure 1 shows a high level summary of total scheme lower bound costs. These costs are apportioned to water entitlements in accordance with the methodology adopted by the QCA in their 2012 review of irrigation charges. The item “Annuity Contribution” refers to the annualised renewals annuity component of the scheme’s total lower bound costs.

Table 2: Water Data

Scheme	Customer Segment	No. of Customers	Water Entitlements (ML)	High Water Priority (ML)	Medium Water Priority (ML)
Lower Fitzroy	1. Industrial		24,009	24,009	0
	2. Irrigation		3,101	0	3,101
	4. Other		39	39	0
	5. SunWater		1,472	1,472	0
	Total	26	28,621	25,520	3,101

QCA Assumed Water Use

69.9%

The 2017 budget is compiled taking onto account the QCA water use assumption.

The QCA established the Headworks Utilization Factor (HUF) for this scheme at Medium Priority 10% and High Priority 90% meaning that proportionally more costs in the scheme are apportioned to high priority water allocation holders on the basis that these water entitlements utilize more of the headworks assets located within the scheme. High priority water entitlements are typically held by urban and industrial customers. Further detail on the HUF and how it is applied to apportion scheme costs can be found in the QCA's final report from the 2012 pricing review, chapters 5 and 6. The QCA final report can be downloaded from www.qca.org.au/Water/Rural/SunWater-s-Irrigation-Prices. The HUFs for each bulk water scheme are published in the QCA final report in a table beginning on p193.

Table 3: Revenue

Lower Fitzroy WS	2013	2014	2015	2016	2017
	Actual \$000	Actual \$000	Actual \$000	Forecast \$000	Budget \$000
Irrigation	41	36	37	41	39
Industrial	-	-	-	-	-
Urban	-	-	-	-	-
Irrigation CSO	-	-	-	-	-
Revenue Transfers	294	359	802	319	374
Drainage	-	-	-	-	-
Other	0	0	(0)	-	-
Insurance Proceeds - Flood	-	-	80	70	-
Revenue Total	335	395	919	430	413

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.

Routine Expenditure

Table 4: Routine Operating Expenditure

Lower Fitzroy WS	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	120	139	18	121	145	24	88	144	55	155	140	(14)	124	143	19	87	609	711	102	86
Electricity	1	1	0	1	1	1	1	2	0	1	2	1	1	2	1	64	6	8	2	72
Insurance	23	12	(11)	42	13	(30)	27	13	(15)	28	13	(15)	31	13	(17)	229	152	65	(87)	235
Operations Total	145	153	8	164	159	(5)	117	158	41	184	155	(29)	156	158	2	99	766	784	17	98
Preventative Maintenance	24	90	67	33	94	61	37	94	57	89	92	3	56	94	38	59	238	463	226	51
Corrective Maintenance	2	44	42	11	46	35	1	46	45	46	46	(0)	44	47	2	95	104	228	124	46
Routine Total	171	287	116	207	299	92	155	298	143	319	293	(26)	256	299	43	86	1,108	1,475	368	75

The budget routine spend is under the QCA's target for 2017.

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 of¹:

- 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.

The operations budget in 2017 is under the QCA target, despite the increases in insurance costs being higher than allowed for by the QCA. Increased premiums followed flood events that have occurred in the past few years in Queensland.

¹ Activities listed will not apply to all service contracts.

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 includes²:

- 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 dams, channel and drainage reserves and balancing storages and other land managed by SunWater

Preventive maintenance is budgeted under 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.

There are two types of corrective maintenance – scheduled and emergency²:

- 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

² Activities listed will not apply to all service contracts.

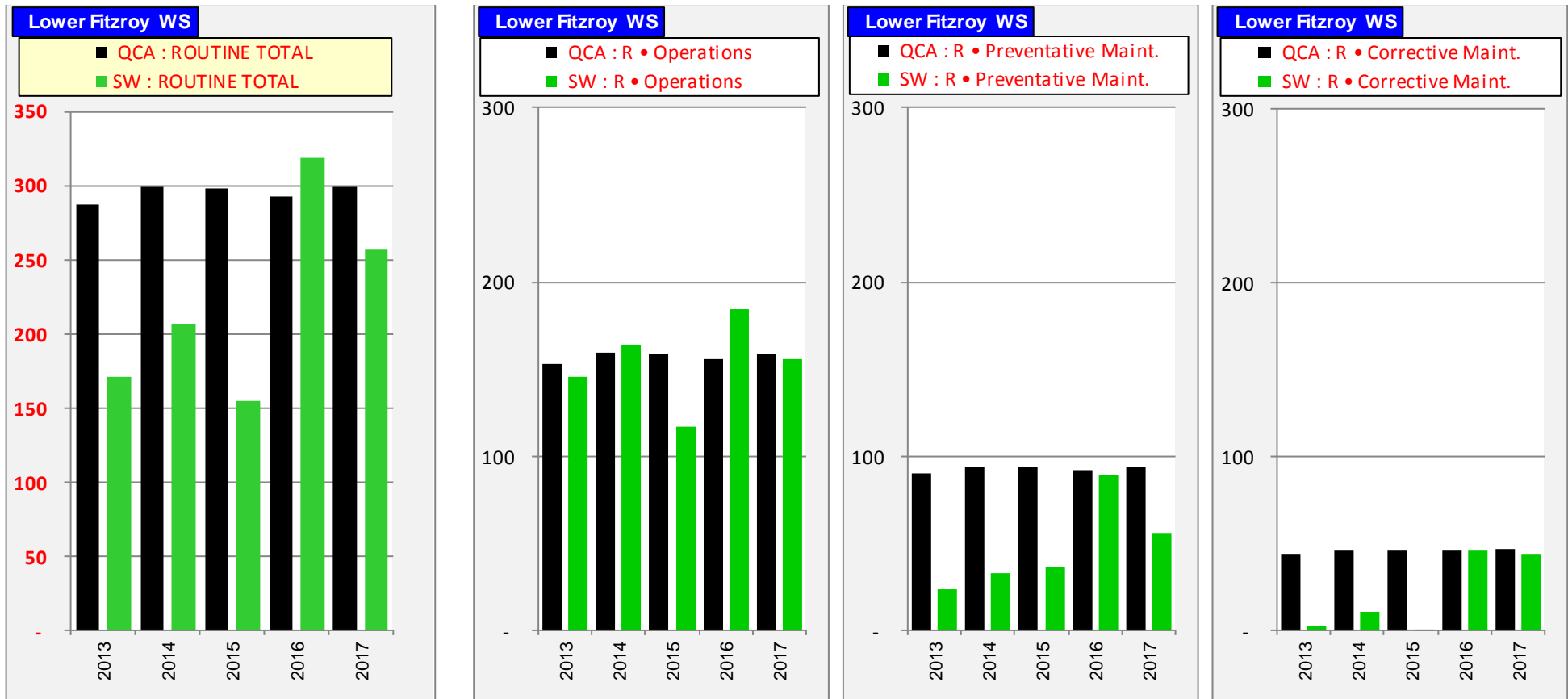
- Repair regulator gates, control valves, etc.
- Pipelines
 - Pipe breaks
 - Repair air valves, scour valves, etc.;
 - Erosion control and repair of rock protection works; and
 - Repair concrete structures.
- Scheme Roads
 - Repair pot holes;
 - Grade roads; and
 - Repair, replace and paint guide posts 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.
- 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 under the QCA's target for 2017.

Routine Cost – Summary and Charts

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 Fitzroy WS	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
Annuity Funded																				
Operations	-	-	-	-	33	33	-	12	12	-	-	-	5	-	(5)	-	5	45	40	11
Preventative Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corrective Maintenance (Flood)	4	-	(4)	137	-	(137)	486	-	(486)	-	-	-	-	-	-	-	627	-	(627)	-
R&E	1	22	21	24	25	1	166	0	(166)	-	43	43	113	16	(97)	694	305	107	(199)	286
Non-routine Total	5	22	17	161	58	(103)	652	12	(641)	-	43	43	118	16	(102)	723	937	152	(785)	618
Non Annuity Funded	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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)
Site office and storage upgrade – EDEN BANN WEIR	This project is to replace the existing site office that is in poor condition due to age. A standard 6m X 6m colourbond shed will be divided into two parts – a site office to house the plc and a storage bay. The existing demountable will be decommissioned and removed.	54
Study: WEIR PROGRAM - 5yr Dam Comprehensive Inspection - EDEN BANN WEIR	Eden Bann Weir is categorised as a major weir in relation to importance in the scheme and to stakeholders. SunWater undertakes annual inspection and five yearly comprehensive inspection for all major weirs to ensure their safety as part of the asset management asset planning condition assessment methodology. In 2017, the five yearly inspection for Eden Bann Weir is due. This inspection will also include an inspection of concrete that was repaired in 2014.	42
Two Yearly Condition Assessment – Electrical - EDEN BANN WEIR	This project is to assess the condition the electrical equipment at Eden Bann Weir. All installed equipment should also be checked against available drawings or drawings created if these do not currently exist.	7
Develop Strategy for BW Cranes - LOWER FITZROY WATER SUPPLY SCHEME	This project is to develop a standard strategy for Crane Maintenance for Lower Fitzroy Supply Scheme.	5
Asset Delivery Scoping Review - LOWER FITZROY WATER SUPPLY SCHEME	This project is setup for Asset Delivery to review scoping documents for maintenance planning item in 2018 Financial Year.	5
Other works	There are 3 other non-routine works planned for 2017 ranging from \$1,000 to \$2,000. Further detail was tabled at the IAC meeting	4
Total		118

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

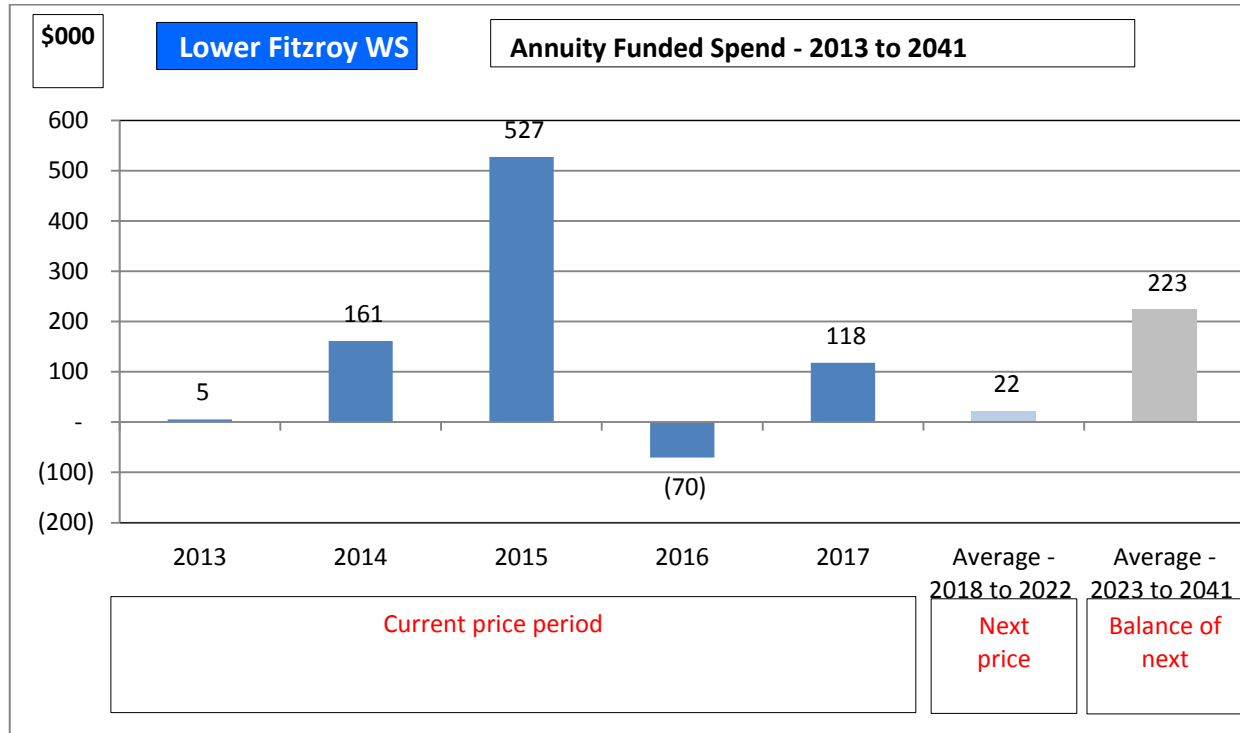
Lower Fitzroy WS		2013	2014	2015	2016	2017	2013 to 2017
	Table reference	Actual \$000	Actual \$000	Actual \$000	Forecast \$000	Budget \$000	Forecast \$000
Annuity							
Opening Balance		362	393	270	(226)	(161)	362
Net Spend	See below	(5)	(161)	(527)	70	(118)	(742)
Annuity Contribution		9	9	11	11	13	54
Interest		27	29	20	(17)	(12)	48
SunWater - Closing Balance		393	270	(226)	(161)	(278)	(278)
QCA - Closing Balance		482	469	503	509	544	544
Difference		(89)	(198)	(729)	(670)	(822)	(822)
Net Spend Analysis							
Spend	5 & 7	(5)	(161)	(652)	-	(118)	(937)
Insurance Proceeds Receipts							
• Prior Year		-	-	45	-	-	45
• Current Year		-	-	80	70	-	150
Net Spend		(5)	(161)	(527)	70	(118)	(742)

* 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

Site Office and Storage Upgrade– EDEN BANN WEIR

Year: 2017

Current estimate: \$54k

Options analysis completed: No

This project is to replace the existing site office that is in poor condition due to age. A standard 6m X 6m colourbond shed will be divided into two parts – a site office to house the plc and a storage bay. The existing demountable will be decommissioned and removed.

Material Projects 2019-23

Projects in the program of works for 2019-23 should be viewed as indicative at this stage and will be refined as the next pricing review draws closer

Refurbish screens - paint – EDEN BANN WEIR

Year: 2021

Current estimate: \$33k

Options analysis completed: No

This project is required based on anticipated condition and risk under the asset management planning methodology. Further information from future inspections of Eden Bann Weir is required to confirm if the screen refurbishment will be required by 2021.

Study: WEIR PROGRAM - 5yr Dam Comprehensive Inspection – EDEN BANN WEIR

Year: 2022

Current estimate: \$29k

Options analysis completed: No

Eden Bann Weir is categorised as a major weir in relation to importance in the scheme and to stakeholders. SunWater undertakes annual inspection and five yearly comprehensive inspection for all major weirs to ensure their safety as part of the asset management asset planning condition assessment methodology.. In 2022, the five yearly inspection for Eden Bann Weir will be due. This is a key input to justify future maintenance.

Material Projects 2024-41

Refurbish Crump Weir for gauging station – EDEN BANN WEIR

Year: 2031

Current estimate: \$77k

Options analysis completed: No

This project is required based on anticipated condition and risk under the asset management planning methodology. Further information from future inspections of Eden Bann Weir will be required to determine if the baulks refurbishment is necessary in 2022.

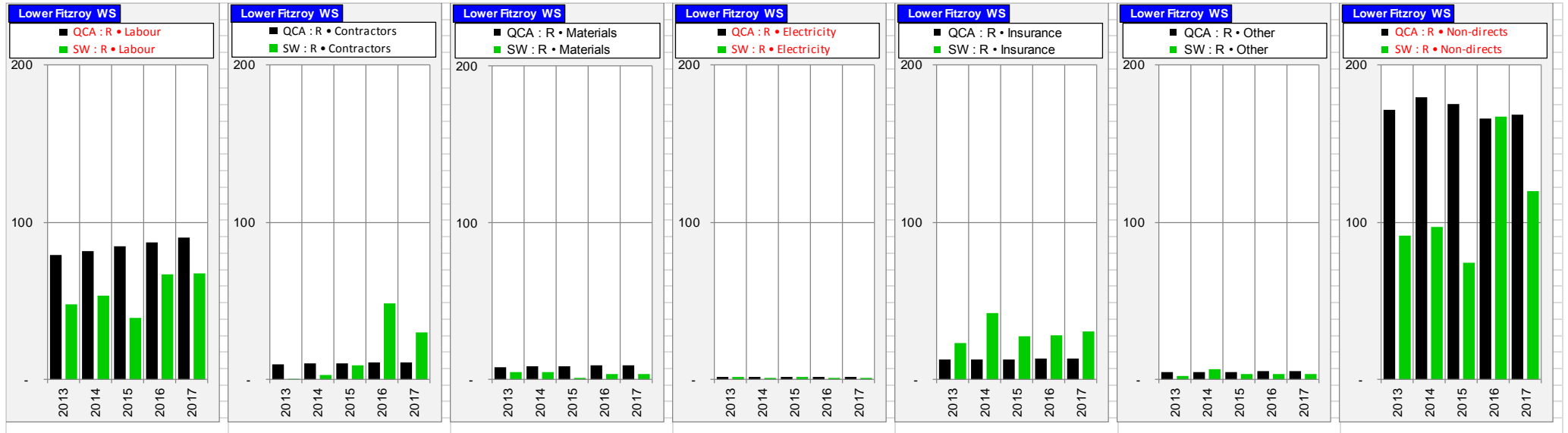
Appendix 1: Total Expenditure by Expense Type

Table 8: Expenditure for Activity by Type

Lower Fitzroy WS	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	335			395			919			430			413			2,492		
Routine Spend																		
Operations																		
Labour	40	42	2	39	44	4	26	45	19	41	47	6	40	48	8	186	226	40
Contractors	-	1	1	3	1	(2)	9	1	(8)	10	1	(9)	10	1	(9)	32	5	(27)
Materials	1	0	(1)	1	1	(1)	0	1	0	-	1	1	-	1	1	2	3	0
Electricity	1	1	0	1	1	1	1	2	0	1	2	1	1	2	1	6	8	2
Insurance	23	12	(11)	42	13	(30)	27	13	(15)	28	13	(15)	31	13	(17)	152	65	(87)
Other	2	2	0	5	2	(3)	3	2	(0)	4	2	(1)	4	2	(1)	17	11	(5)
Non-directs	77	93	15	72	97	25	50	95	44	101	90	(11)	71	91	20	372	466	95
	145	153	8	164	159	(5)	117	158	41	184	155	(29)	156	158	2	766	784	17
Preventative Maintenance																		
Labour	7	26	19	11	27	16	13	28	15	19	29	10	16	30	14	65	140	75
Contractors	1	5	4	-	5	5	-	5	5	22	5	(17)	10	5	(5)	33	26	(7)
Materials	3	3	0	1	4	2	0	4	4	1	4	2	1	4	2	7	18	11
Other	0	-	(0)	1	-	(1)	1	-	(1)	-	-	-	-	-	-	2	-	(2)
Non-directs	13	56	43	20	58	39	23	57	33	46	54	8	28	55	26	131	279	149
	24	90	67	33	94	61	37	94	57	89	92	3	56	94	38	238	463	226
Corrective Maintenance																		
Labour	1	11	10	3	11	8	-	11	11	8	12	4	12	12	1	23	57	34
Contractors	-	4	4	-	4	4	-	4	4	16	4	(11)	10	4	(6)	26	21	(5)
Materials	1	4	4	2	4	2	1	4	4	2	4	2	2	5	3	8	22	14
Other	-	2	2	1	3	2	-	3	3	-	3	3	-	3	3	1	13	12
Non-directs	1	23	22	5	24	19	0	24	24	20	22	2	21	23	2	47	116	69
	2	44	42	11	46	35	1	46	45	46	46	(0)	44	47	2	104	228	124
Routine - total	171	287	116	207	299	92	155	298	143	319	293	(26)	256	299	43	1,108	1,475	368
Non-Routine Spend																		
Labour	2	3	1	24	10	(15)	79	2	(77)	-	3	3	19	3	(16)	124	20	(103)
Contractors	-	10	10	89	7	(81)	375	0	(374)	-	31	31	49	3	(46)	513	52	(461)
Materials	-	-	-	-	12	12	3	3	(0)	-	1	1	13	3	(10)	15	18	3
Other	-	1	1	2	4	2	31	1	(29)	-	2	2	2	2	(1)	35	9	(26)
Non-directs	3	8	5	46	26	(20)	165	5	(161)	-	7	7	35	6	(29)	250	52	(198)
Non-Routine - Total	5	22	17	161	58	(103)	652	12	(641)	-	43	43	118	16	(102)	937	152	(785)
Total Regulated Spend	176	309	133	368	357	(11)	807	309	(498)	319	336	18	374	315	(59)	2,045	1,627	(418)
Non Annuity Funded Spend																		
Surplus (Deficit)	159			27			111			111			39			447		

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

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