

2017/18 ANNUAL NETWORK SERVICE PLAN

BURDEKIN BULK WATER

30 JUNE 2017



MAKING WATER WOR

CONTENTS

Introduction	3
Financial Summary	4
Water Data	5
Revenue	6
Routine Expenditure.....	7
Operations	9
Preventive maintenance	11
Corrective maintenance.....	13
Non-Routine Expenditure.....	16
Non-routine projects for 2018 and 2019	18
Annuity Balance	20
Overview of annuity-funded, non-routine projects to 2043.....	21
Material projects 2018 and 2019.....	21
Material projects 2020–24	22
Material projects 2025–43	22
Appendix 1: Total Expenditure by Expense Type	23
Notes.....	26

We're focused on reliability, efficiency and safety, ensuring the Burdekin Water Supply Scheme 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 and longer-term improvement projects, and provide a detailed breakdown of anticipated revenue and costs for review.

Our focus for 2017/18 is maintaining a reliable water supply and continuing safe dam operations. Major works planned include the Dam Safety upgrade to improve foundation drainage in the gallery and apron, Replacement of hydraulic cylinders at Clare Weir and replacement of HV transformers, we will also be delivering an extensive program of investigations and repairs, looking specifically at systems, metering and outlet works. This is part of our commitment to maintaining high standards and delivering ongoing value.

It is important to us that our customers are involved 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.

Jim Mummery
Service Manager

INTRODUCTION

At SunWater, we are committed to working collaboratively with our customers to deliver value and fit-for-purpose water solutions.

For our 5,000-plus customers, this means building and sustaining positive relationships while operating an efficient, sustainable business. We are committed to keeping our customers and partners informed, and working closely with them to identify and work towards solutions that deliver shared value.

This annual Network Service Plan (NSP) is designed to keep Burdekin Bulk Water's 415 customers up-to-date regarding routine expenditure (opex) and non-routine expenditure throughout the coming financial year — so they can provide input to our processes and be part of business decisions. In particular, the NSP covers:

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

In the past, NSPs compared SunWater's costs with the Queensland Competition Authority (QCA) targets set in the 2012 price review. The 2017/18 NSP is the first to fall outside the QCA price path, which expires 30 June 2017. While the price path has been extended for two years, new targets will not be formally set.

In order to provide our customers with routine expenditure information of the greatest value possible (i.e. as close as possible to anticipated targets), we have adjusted the 2017 QCA targets in line with the QCA inflation assumption of 2.5% and adopted that as the target spend.

While adopting targets for routine spend is relatively simple, adopting targets for non-routine expenditure is more complicated. Due to the absence of confirmed information from the QCA and to provide our customers with as much information as possible, we have presented non-routine expenditure budgets for both 2018 and 2019. SunWater will work to maintain total expenditure during the next two years within the two-year budget limits.

The prior year figures included in this NSP are provided for information only. The focus of consultation is the draft budget figures for 2018. These figures are subject to change until after consultation when the 2018 budget is finalised.

Customer input to and feedback on the NSP is greatly valued. We consider and respond to all submissions, publishing all responses on our website.

To have your say, please contact us via email or post:

Email: nspfeedback@sunwater.com.au

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

FINANCIAL SUMMARY

In 2017/18 SunWater plans to increase routine and non-routine expenditure for Burdekin Bulk Water, with a focus on projects that improve efficiency and performance, and allow us to deliver the best possible service to our customers.

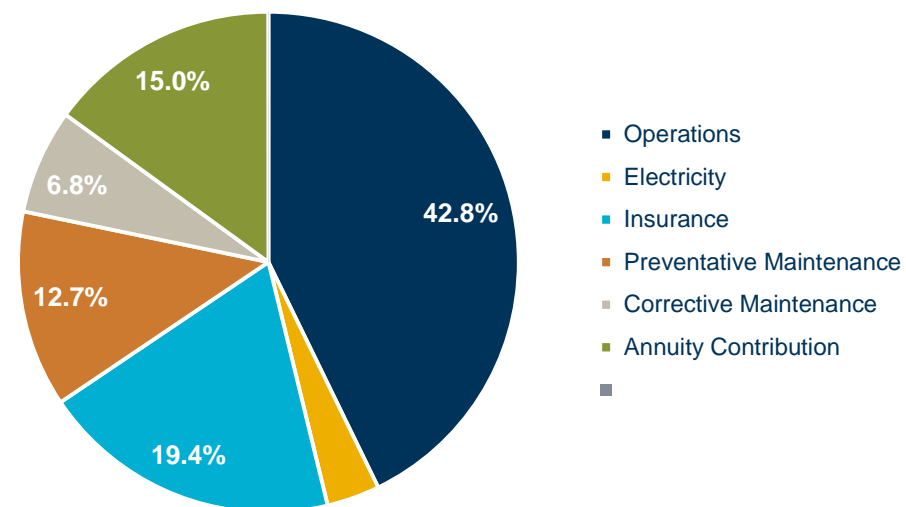
A high-level summary of the budgeted financial performance of the Burdekin Bulk Water service contract is presented in Table 1 below. Further detail on the planned spend, together with estimated revenue, is outlined on subsequent pages of this plan.

TABLE 1: OPERATING REVENUE LESS SPEND

Burdekin WS	Table reference	2014 Actual \$000	2015 Actual \$000	2016 Actual \$000	2017 Forecast \$000	2018 Budget \$000
Revenue	Table 1	4,075	4,405	4,525	6,041	6,181
Less – Routine Expenditure	Table 4 & Table 7	3,149	2,515	2,408	3,346	3,468
Less – Non-Routine Expenditure						
• Annuity Funded	Table 5, Table 6 & Table 7	397	696	423	745	1,882
• Non Annuity Funded	Table 5	4	-	7	2,938	11,096
Surplus (Deficit)		525	1,194	1,688	(987)	(10,265)

As part of our commitment to transparency, Figure 1 below shows a high-level breakdown of total scheme costs assessed by the QCA. These costs are divided up according to the QCA's methodology, which was outlined in its 2012 review of irrigation charges. The item 'Annuity Contribution' refers to the annualised renewals annuity component of the scheme's total costs.

FIGURE 1: BREAKDOWN OF TOTAL SCHEME COSTS – 2018 BUDGET



WATER DATA

Burdekin Bulk Water's customer base includes industrial, irrigation and urban customers, as well as SunWater. The water entitlements of each segment are shown in Table 2 below. SunWater's allocation relates to channel system distribution losses.

TABLE 2: WATER DATA

Scheme	Customer Segment	No. of Customers	Water Entitlements (ML)	High Water Priority (ML)	Medium Water Priority (ML)
Burdekin Haughton	Industrial		20,820	19,779	1,041
	Irrigation		635,212	0	635,212
	Urban		10,537	10,537	0
	Other		6	0	6
	SunWater		413,967	69,683	344,284
	Total	415	1,080,543	99,999	980,544

When it comes to apportioning costs, customers fall into two categories: High Priority and Medium Priority. High Priority customers pay a higher proportion of costs to secure priority access to water. These customers are typically urban and industrial.

For the Burdekin Bulk Water scheme, the QCA's Headworks Utilisation Factor (HUF) — which determines how fixed costs are allocated — is 21% for High Priority and 79% for Medium Priority. This means High Priority customers pay a greater portion of costs on the basis that they use more of the water supply infrastructure located within the scheme.

Further detail on the HUF and how it is applied to breakdown scheme costs can be found in chapters five and six of the QCA's final report from the 2012 pricing review. HUFs for each bulk water scheme are published on page 193. The QCA final report can be downloaded from www.qca.org.au/Water/Rural/SunWater-s-Irrigation-Prices.

*QCA assumed water use is 55.8%. The 2018 budget is compiled taking onto account the QCA water use assumption.

REVENUE

SunWater's anticipated revenue for Burdekin Bulk Water in 2017/18 is provided in Table 3.

TABLE 3: REVENUE

Burdekin WS	2014 Actual \$000	2015 Actual \$000	2016 Actual \$000	2017 Forecast \$000	2018 Budget \$000
Irrigation	1,315	1,507	1,398	1,468	1,890
Industrial	6	6	18	54	55
Urban	77	-	-	982	84
Irrigation CSO	-	-	-	-	-
Revenue Transfers	2,548	2,799	3,030	3,440	3,737 ¹
Drainage	-	-	-	-	-
Other	130	79	79	97	415
Insurance Proceeds – Flood	-	14	-	-	-
Revenue Total	4,075	4,405	4,525	6,041	6,181

¹Revenue 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. In 2012, the QCA established the transfer cost for irrigation supplies at the cost reflective bulk water tariff. Now that the QCA prices path has ended SunWater has recalculated the cost reflective tariff and revenue transfers based on the actual cost for providing bulk water services. Any increases reflect increases in uncontrollable cost like insurance premiums, electricity, IGEM cost and flood damage. The revisions to revenue transfer arrangements will not affect prices paid by customers in 2018 and 2019, however it is important for SunWater to be transparent and signal to customers the cost pressures being experienced. These cost pressure will not flow to prices until after the completion of the next pricing review. Note also that the revenue transfer costs above do not include the bulk water costs of SunWater's channel distribution system losses.

ROUTINE EXPENDITURE

SunWater has budgeted an increase in Burdekin Bulk Water routine operating expenditure in 2018 (refer to Table 4). This budget includes funds for operations activities (operations, electricity and insurance), preventive maintenance and corrective maintenance.

TABLE 4: ROUTINE OPERATING EXPENDITURE

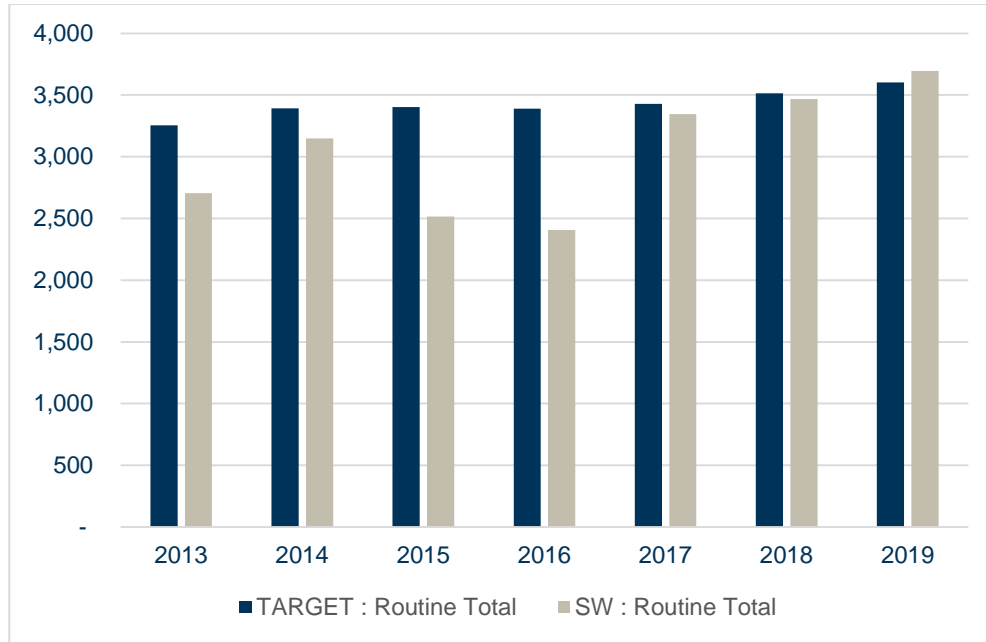
Burdekin WS	2014			2015			2016			2017			2018			
	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Actual \$000	QCA Target \$000	Variance \$000	SW Forecast \$000	QCA Target \$000	Variance \$000	SW Budget \$000	QCA Forecast \$000	Variance \$000	% of target
Operations	1,473	2,385	912	1,010	2,382	1,372	1,116	2,357	1,241	1,729	2,377	649	1,745	2,437	691	72
Electricity	100	102	2	122	109	(12)	107	118	11	129	127	(2)	139	130	(9)	107
Insurance	1,005	300	(705)	677	305	(372)	569	310	(259)	790	315	(474)	790	323	(466)	244
Operations Total	2,578	2,787	209	1,809	2,796	987	1,792	2,785	993	2,647	2,819	172	2,674	2,890	216	93
Preventative Maintenance	245	373	128	505	373	(132)	474	371	(103)	495	373	(121)	518	383	(135)	135
Corrective Maintenance	326	232	(94)	201	234	32	142	234	92	204	236	32	276	242	(34)	114
Routine Total	3,149	3,392	243	2,515	3,403	888	2,408	3,389	982	3,346	3,429	83	3,468	3,514	47	99

One of the key challenges for SunWater in managing routine expenditure is reigning in the cost of insurance premiums, which are significantly higher than the QCA forecast due to unforeseen flood events in recent years.

The anticipated cost of Burdekin Bulk Water's preventive maintenance for 2018 is also significantly higher than the QCA forecast due, for the most part, to the need for additional contractors. SunWater is committed to undertaking ongoing reviews of this work to minimise costs wherever possible.

These projected variances and SunWater's past performance against QCA targets are presented in Figure 2.

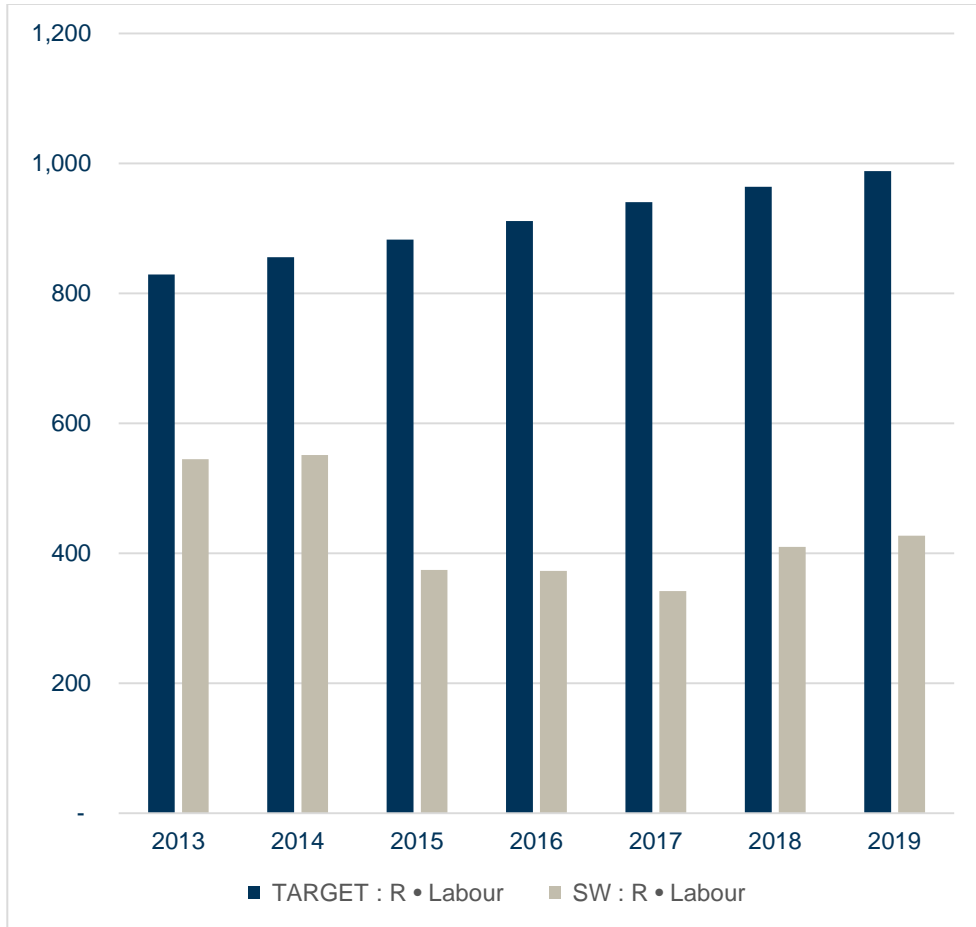
FIGURE 2: ROUTINE EXPENDITURE COMPARED TO QCA TARGET/FORECAST (\$'000)



Operations

Burdekin Bulk Water's total operations budget in 2018 is below the QCA forecast.

FIGURE 3: ROUTINE OPERATIONS EXPENDITURE COMPARED TO QCA TARGET/FORECAST (\$'000)



Operations expenditure includes day-to-day costs associated with management of the scheme, water delivery and meeting compliance obligations. Specific activities include the direct and non-direct cost of²:

- scheduling and delivering water, including processing water orders, releasing water, operating pump stations, regulating and monitoring channel flows, and monitoring customer deliveries
- emergency responses for channel overflows and other emergency events
- meter reading
- administration of water accounts, billing and receipting payments
- customer management, including enquiries, complaints and maintaining the customer service help desk
- 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
- managing enquiries from adjoining landholders and developers that require input from and negotiations with SunWater's property and legal sections.

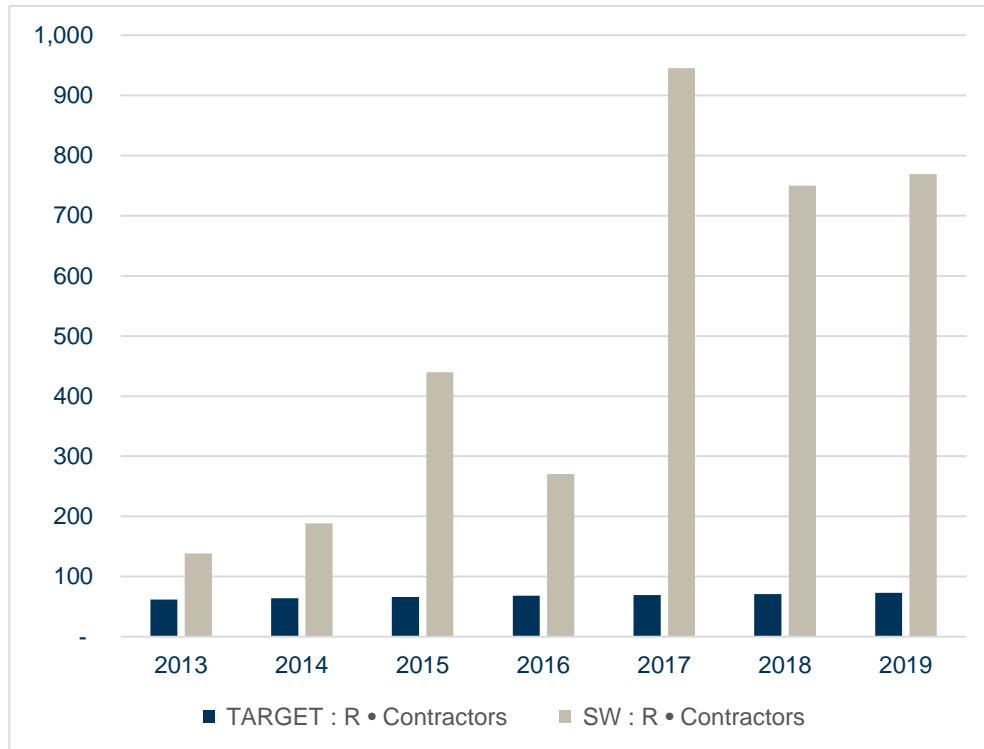
² Activities listed will not apply to all service contracts.

Preventive maintenance

Preventive maintenance is an important activity and expense, as it ensures the ongoing operational performance and service capacity of Burdekin Bulk Water's physical assets. These activities are based on updated work instructions for operating the scheme and include an estimate of the resources required to implement the required scope of work. The work instructions are maintained and kept current by SunWater's maintenance staff.

As outlined above, SunWater's need for additional contractors to deliver the required schedule of preventive maintenance work has had a significant impact on the 2018 budget, increasing it to 136% above the QCA forecast. Every effort will be made to minimise these additional costs.

FIGURE 4: ROUTINE PREVENTIVE MAINTENANCE EXPENDITURE COMPARED TO QCA TARGET/FORECAST (\$'000)



Preventive maintenance is cyclical in nature with a typical interval of 12 months or less.

Preventive maintenance for Burdekin Bulk Water includes³:

- Condition monitoring — the inspection, testing or measurement of physical assets to report and record condition and performance to determine maintenance requirements. Condition monitoring is carried out on electrical, mechanical and civil assets, including pump stations (pumps, electrical motors, valves, switchboards and associated equipment), channels (regulator gates, civil works, signs, structures, etc.), drains (civil works, structures etc.), pipelines (valves, air valves, scours easements etc.), and other infrastructure.
- Servicing — planned maintenance activities normally expected to be carried out routinely on physical assets including valves, cranes, sump pumps and associated equipment.
- Weed control — management of weeds, including:
 - slashing channels and drains
 - Acrolein treatment of channels
 - Copper Sulphate treatment
 - spraying and other activities to control operational and noxious weeds within dams, channel and drainage reserves, and balancing storages and other land managed by SunWater.

³ Activities listed will not apply to all service contracts.

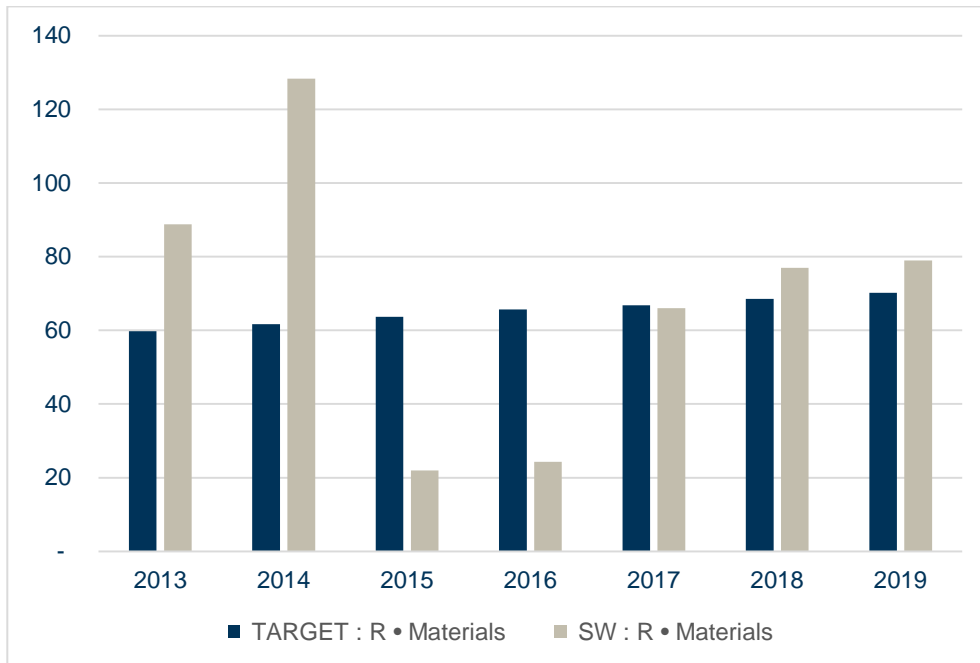
Corrective maintenance

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. 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.

Burdekin Bulk Water corrective maintenance for 2018 is budgeted above the QCA forecast. SunWater will continue to refine budgets with the aim of bringing the expenditure into line with target.

FIGURE 5: ROUTINE CORRECTIVE MAINTENANCE EXPENDITURE COMPARED TO QCA TARGET/FORECAST (\$'000)



Scheduled corrective maintenance

Scheduled corrective maintenance is maintenance that can be planned and scheduled. For Burdekin Bulk Water it typically includes⁴:

- Channels:
 - de-silting channels and catch drains
 - erosion control and repairing rock protection works
 - repairing fencing
 - repairing concrete structures
 - repairing regulator gates, control valves, etc.
- Drains:
 - de-silting drains
 - erosion control and repairing rock protection works
 - repairing fencing
 - repairing concrete structures.
- Pipelines:
 - repairing pipe breaks
 - repairing air valves, scour valves, etc.
 - erosion control and repairing rock protection works
 - repairing concrete structures.
 - Scheme roads:
 - repairing pot holes
 - grading roads
 - repairing, replacing, and painting guide posts and signs.

⁴ Activities listed will not apply to all service contracts.

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

Emergency corrective maintenance

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). It typically includes⁵:

- repair or correction of pump station faults
- repair or correction of channel faults
- repair or correction of pipeline faults
- response to theft or vandalism associated with scheme assets.

⁵ Activities listed will not apply to all service contracts.

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 and the calculation of annuity. Having an annuity funding arrangement acknowledges a long-term view of renewals spend is required to ensure adequate funding and to address issues such as intergenerational equity, ensuring the scheme is maintained in perpetuity for future generations of water users.

The most recent annual review of our renewals program was completed in February 2017. Items identified as needing immediate maintenance or replacement are included in the budget for 2018.

While the immediate program for the 2018 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 with the minimum spend. 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.

DUE TO THE ABSENCE OF QCA TARGETS FOR 2018 AND BEYOND, WE HAVE PRESENTED NON-ROUTINE EXPENDITURE FOR TWO YEARS — TO ENSURE OUR CUSTOMERS HAVE AMPLE VISIBILITY OF NON-ROUTINE MAINTENANCE ACTIVITIES PRIOR TO THE NEXT PRICE REVIEW.

Table 5 outlines the budget non-routine spends as well as the actual spend for prior years.

Our projected figures for 2018 and 2019 were compared with the 'projected' spend outlined in the 2012 QCA renewals annuity profile. This is referred to as 'QCA forecast' in the table above. There is significant difference in the scope and cost of

projects to be undertaken due to the fact that the QCA forecast was developed in 2011. 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.

TABLE 5: NON-ROUTINE EXPENDITURE

Burdekin WS	2014			2015			2016			2017			2018			2019			
	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 Actual \$000	QCA Target \$000	Variance \$000	SW Budget \$000	QCA Forecast \$000	Variance \$000	SW Budget \$000	QCA Forecast \$000	Variance \$000	% of target
Annuity Funded																			
Operations	11	-	(11)	-	29	29	3	-	(3)	37	-	(37)	16	-	(16)	15	-	(15)	-
Preventative Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corrective Maintenance (Flood)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R&E	387	234	(152)	696	218	(479)	420	290	(130)	708	1,395	688	1,865	1,079	(787)	871	1,182	311	74
Non-routine Total	397	234	(163)	696	247	(449)	423	290	(133)	745	1,395	651	1,882	1,079	(803)	886	1,182	296	75
Non Annuity Funded	4						7			2,938			11,096						

Changes to flood operations

Based on recommendations from the Inspector General Emergency Management (IGEM), SunWater has improved how it operates in flood situations. Our revised processes focus on keeping local communities well informed, providing timely, detailed updates regarding emerging flood risks.

These changes were made in response to the 2015 IGEM review of the TC Marcia floods in the Callide Valley. While the review found SunWater had adequately undertaken its role in accordance with the established emergency action plans (EAPs), more could have been done to notify the community sooner about the emerging flood risk.

This assessment was followed by a second, related IGEM review in late 2015 into warnings provided by SEQWater and SunWater following criticism of SEQWater following a release of water from one of its dams.

IGEM noted that *“the public expects notifications and warnings will be disseminated as soon as possible when known by dam owners. They also expect messages will include timings to guide their actions, will convey the urgency of the developing situation, that regular updates will be provided and when the next update can be expected”*.

Non-routine projects for 2018 and 2019

Details of the major non-routine projects planned for 2018 and 2019 are provided below in Table 6 and Table 7.

TABLE 6: NON-ROUTINE PROJECTS 2018

Project title	Project scope	2018 budget (\$'000)
Refurbish Hydraulic System and cylinders - Stage 1	5180011 The concrete structures of the Clare Weir were constructed in 1978. In 1985, John Holland were contracted to construct and commission 150 hydraulically operated flap gates. There have been two recent collapses of flap gates on the Clare Weir in December 2012 (Investigation Report, HB Document No 1476384) and October 2013 (Queensland Hydraulics Investigation Report, HB Document No 1538160). As a result, detailed options analysis (HB Document No 1972791- v 4 Option 3) supported the initial options analysis to refurbish/replace all cylinders over a period of time, in batches of up to 36. Development of the flap gate refurbishment and maintenance strategy is in progress (HB#2051747).	599
Study: 20yr Dam Safety Review - Burdekin Falls Dam	5193397 This project is initiated to meet the regulatory requirement. The purpose of the project to carry out 20 year dam safety review in accordance with Dam Safety Management Guidelines 2012. The scope includes review of foundations, main wall, spillway, outlet works, associated equipment and monitoring system.	293
Refurbish transformer 11 - Burdekin Falls Dam (refer to HB#1983746 and 14BRI47) - Options and installation	5193236 This project was identified during the 2014 electrical inspection. Burdekin Falls Dam transformers were manufactured in 1980 (TX11) and in 1979 (TX12). The transformer TX12 oil test indicates Interfacial Tension factor (IFT) is reduced. The IFT factor is contributing to the transformer's degradation of insulation paper, acidity number and deposited sludge; this causes the transformer's winding temperature to increase. It is concluded that if no action is taken, Transformer TX12 will eventually fail. Transformer TX11 kiosk enclosure has severe corrosion and if no action is taken, the transformer internal components will be unprotected. In this instance the risk of short circuiting and fire hazard is high. Refer to Renewals Detailed Options Analysis HB#2092686.	140
Refurbish transformer 12 - Burdekin Falls Dam (refer to HB#1983746 and 14BRI47) - Options and installation	5193235 This project was identified during the 2014 electrical inspection. Burdekin Falls Dam transformers were manufactured in 1980 (TX11) and in 1979 (TX12). The transformer TX12 oil test indicates Interfacial Tension factor (IFT) is reduced. The IFT factor is contributing to the transformer's degradation of insulation paper, acidity number and deposited sludge; this causes the transformer's winding temperature to increase. It is concluded that if no action is taken, Transformer TX12 will eventually fail. Transformer TX11 kiosk enclosure has severe corrosion and if no action is taken, the transformer internal components will be unprotected. In this instance the risk of short circuiting and fire hazard is high. Refer to Renewals Detailed Options Analysis HB#2092686.	131
Other works	There are 19 other non-routine projects for 2018 ranging from \$5,000 to \$118,000. Further detail will be tabled at the IAC meeting.	703
Total		1,865

TABLE 7: NON-ROUTINE PROJECTS 2019

Project title	Project scope	2019 budget (\$'000)
Refurbish Hydraulic System and cylinders - Stage 2	(blank) The concrete structures of the Clare Weir were constructed in 1978. In 1985, John Holland were contracted to construct and commission 150 hydraulically operated flap gates. There have been two recent collapses of flap gates on the Clare Weir in December 2012 (Investigation Report, HB Document No 1476384) and October 2013 (Queensland Hydraulics Investigation Report, HB Document No 1538160). As a result, detailed options analysis (HB Document No 1972791- v 4 Option 3) supported the initial options analysis to refurbish/replace all cylinders over a period of time, in batches of up to 36. Development of the flap gate refurbishment and maintenance strategy is in progress (HB#2051747).	552
Refurbish Trash Racks - paint and refurbish - rolling program	5160087 In accordance with SunWater Whole of Life Maintenance Strategy & Object Codes (HB# 956033) the trashracks have to be refurbished every 6 years.	44
Other works	There are 16 other non-routine projects for 2019 ranging from \$5,000 to \$38,000. Further detail will be tabled at the IAC meeting.	275
Total		871

ANNUITY BALANCE

SunWater's annuity funding arrangement acknowledges a long-term view of renewals spend and ensures we have adequate funding to address issues such as intergenerational equity.

In order to manage our annuity balance to reasonable levels, we aim to limit annuity spend to the QCA's targets over the five-year price path. However, required increases in spend in recent years have impacted our ability to achieve this. For

detail, please refer to past NSPs available on the SunWater website at: <http://www.sunwater.com.au/schemes/nsp/annual-nsp-and-performance-reports>.

The estimated 2017 and 2018 annuity balances, and the impacts of budgeted non-routine spend, are shown in Table 8 below. The annuity contribution shown has been set by the QCA and is assumed to apply in 2018.

TABLE 8: ANNUITY BALANCE*

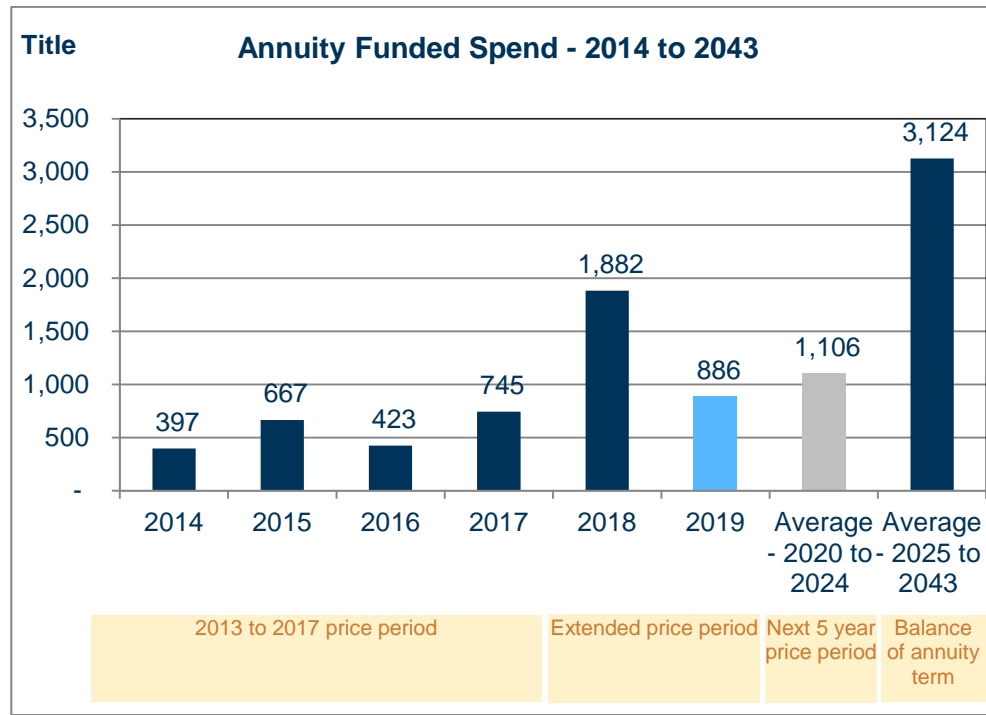
Burdekin WS	Table Reference	2014 Actual \$000	2015 Actual \$000	2016 Actual \$000	2017 Forecast \$000	2018 Budget \$000	2019 Forecast \$000
Annuity							
Opening Balance		5,108	5,652	5,975	6,592	6,937	6,186
Net Spend	See below	(397)	(667)	(423)	(745)	(1,882)	(886)
Annuity Contribution		558	567	592	596	611	627
Interest		383	423	448	494	520	463
SunWater – Closing Balance		5,652	5,975	6,592	6,937	6,186	6,390
QCA – Closing Balance		5,897	6,659	7,460	7,220	7,293	7,284
Difference		(245)	(684)	(868)	(282)	(1,107)	(894)
Net Spend Analysis							
Spend	Table 5 Table 7	(397)	(696)	(423)	(745)	(1,882)	(886)
Insurance Proceeds Receipts							
• Prior Year		-	16	-	-	-	-
• Current Year		-	14	-	-	-	-
Net Spend		(397)	(667)	(423)	(745)	(1,882)	(886)

*All 2017 and 2018 figures are subject to change once actual spend is known.

Overview of annuity-funded, non-routine projects to 2043

The renewals annuity is calculated over a 20-year planning period. Given that the following pricing period ends in 2024, the estimated renewals spend out until 2043 will affect the next pricing review. The estimated renewals expenditure out to 2043 is shown in Figure 6 below, and material renewals items for the period are discussed in the sections following.

FIGURE 6: ANNUITY EXPENDITURE TO 2043



A project is considered 'material' when its value is greater than 10% of planned expenditure for the period in question.

SunWater develops options analyses for all material items in the annuity calculation planning period. These reports are tailored to suit project complexity and budget. Detailed options analyses are completed within the current and following five-year pricing periods, and high-level options analyses are completed for the 20-year period beyond the next price path.

The materiality tests are 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 2018 and 2019

Refurbish Hydraulic System and cylinders - Stage 1

- Year: 2018
- Current estimate: \$599,000
- Options analysis completed: No

Refurbish Hydraulic System and cylinders - Stage 2

- Year: 2019
- Current estimate: \$552,000
- Options analysis completed: No

Material projects 2020–24

Projects in the program of works for 2020–24 should be viewed as indicative at this stage and will be refined as the next pricing review draws closer.

Refurbish Hydraulic System and cylinders - Stage 3

- Year: 2020
- Current estimate: \$559,000
- Options analysis completed: No

Refurbish Hydraulic System and cylinders - Stage 4

- Year: 2021
- Current estimate: \$576,000
- Options analysis completed: No

Material projects 2025–43

The evenness in spread of estimated project costs means there are no projects that exceed the materiality threshold for this service contract for the 2025–43 period.

APPENDIX 1: TOTAL EXPENDITURE BY EXPENSE TYPE

TABLE 9: EXPENDITURE FOR ACTIVITY BY TYPE

Burdekin WS	2014			2015			2016			2017			2018		
	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 Forecast \$000	Variance \$000
Revenue	4,075			4,405			4,525			6,041			6,181		
Routine Spend															
Operations															
Labour	432	701	270	258	724	466	251	747	496	261	771	510	312	790	478
Contractors	34	18	(16)	97	19	(79)	49	19	(30)	580	19	(561)	350	20	(330)
Materials	64	22	(41)	12	23	11	17	24	6	22	24	2	22	25	3
Electricity	100	102	2	122	109	(12)	107	118	11	129	127	(2)	139	130	(9)
Insurance	1,005	300	(705)	677	305	(372)	569	310	(259)	790	315	(474)	790	323	(466)
Other	99	83	(16)	104	85	(19)	210	87	(123)	215	89	(126)	284	91	(193)
Non-directs	845	1,560	715	538	1,531	993	588	1,480	891	651	1,474	823	778	1,511	734
	2,578	2,787	209	1,809	2,796	987	1,792	2,785	993	2,647	2,819	172	2,674	2,890	216
Preventative Maintenance															
Labour	53	102	49	107	105	(2)	103	108	5	73	112	39	78	114	36
Contractors	88	35	(53)	179	36	(143)	140	37	(103)	230	38	(192)	240	39	(201)
Materials	2	8	6	7	8	1	4	8	4	20	8	(12)	20	9	(11)
Other	7	7	1	6	8	2	8	8	(0)	23	8	(15)	16	8	(8)
Non-directs	95	221	125	206	216	10	218	209	(9)	149	207	58	164	213	49
	245	373	128	505	373	(132)	474	371	(103)	495	373	(121)	518	383	(135)
Corrective Maintenance															
Labour	67	52	(15)	9	54	45	19	56	37	8	58	49	20	59	39
Contractors	66	11	(55)	163	11	(152)	81	12	(70)	135	12	(123)	160	12	(148)
Materials	63	32	(31)	2	33	30	2	34	31	24	34	10	35	35	0
Other	2	21	19	1	22	21	2	23	20	12	23	11	12	23	11
Non-directs	128	116	(12)	26	114	88	37	110	73	24	109	85	49	112	63

Burdekin WS	2014			2015			2016			2017			2018		
	326	232	(94)	201	234	32	142	234	92	204	236	32	276	242	(34)
Routine Total	3,149	3,392	243	2,515	3,403	888	2,408	3,389	982	3,346	3,429	83	3,468	3,514	47
Non-Routine Spend															
Labour	70	36	(35)	110	38	(72)	81	48	(33)	158	225	68	241	170	(71)
Contractors	192	46	(147)	345	69	(276)	153	76	(77)	255	255	(0)	1,081	218	(863)
Materials	(0)	37	37	12	28	17	13	41	27	5	245	240	14	178	164
Other	7	20	13	8	16	8	10	22	12	19	126	107	26	94	69
Non-directs	128	96	(32)	221	95	(126)	165	103	(62)	308	543	235	520	418	(102)
Non-Routine Total	397	234	(163)	696	247	(449)	423	290	(133)	745	1,395	651	1,882	1,079	(803)
Total Regulated Spend	3,546	3,626	80	3,211	3,650	438	2,830	3,679	849	4,091	4,824	733	5,349	4,593	(756)
Non Annuity Funded Spend	4			-			7			2,938			11,096		
Surplus (Deficit)	525			1,194			1,688			(987)			(10,265)		

Non-direct costs explained

Non-direct costs reflect SunWater's methodology for distributing indirect costs, local overheads and corporate overheads to each service contract. Wherever practicable, labour and other costs are booked direct to service contracts. Where this is not possible, the costs accumulate in either indirect or overhead accounting cost pools and are then distributed to service contracts.

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, including the IGEM emergency management program, water planning, hydrographic services, environmental support costs and GM Operations. These indirect costs are shared between SunWater's lines of business: Bulk Water, Irrigation Distribution Systems, Industrial Pipeline and Facilities Management, where appropriate. For example, service contracts without a dam are not apportioned dam safety costs.

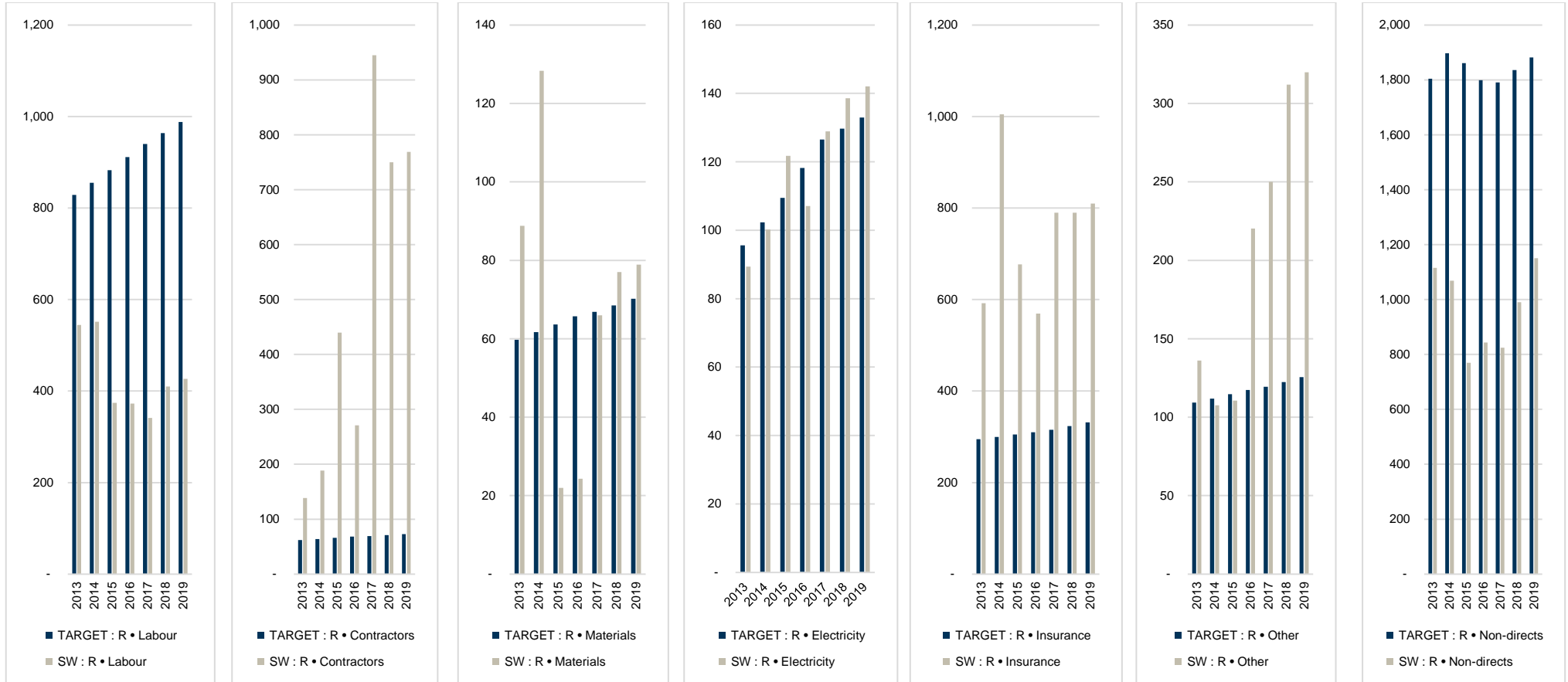
Local overheads are spread across service contracts managed in each locality. They include regional accommodation costs, vehicle costs, local administration support and other local labour not directly booked to activities within service contracts.

Corporate overhead costs are more generic than indirect costs and local overheads, and are spread across all service contacts based on direct labour. They include the cost of HR and payroll, ICT, corporate communications, legal and property, finance, and internal audit, plus the costs of the CEO, GM Corporate and the SunWater Board of Directors, where these costs are not directly charged to activities within service contracts.

SunWater's methodology for recovering non-direct cost was reviewed and accepted by the QCA during the 2012 pricing review.

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

FIGURE 7: ROUTINE EXPENDITURE BY EXPENSE TYPE (\$'000)



NOTES

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

Although the QCA sets 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's reported real dollars to nominal dollars, multiply the figures by the conversion factors listed in Table 10 below.

The conversion factors are based on the QCA's assumed inflation rate of 2.5% p.a. Conversion factors based on actual inflation, as measured by the Brisbane All Groups Consumer Price Index in March each year, are provided for comparison.

TABLE 10: CONVERSION FACTORS FOR REAL \$2011 TO NOMINAL DOLLARS

	2013	2014	2015	2016	2017	2018	2019
QCA Conversion Factor	1.0510	1.0770	1.1040	1.1310	1.1600	1.189	1.2187
Accumulative March Quarter CPI	1.0494	1.0714	1.1050	1.1208	1.1397	1.1606	

Disclaimer

This report has been produced by SunWater to provide information for client use only. The information contained in this report is limited by the scope and the purpose of the study, and should not be regarded as completely exhaustive. Permission to use or quote information from this report in studies external to the Corporation must first be obtained from the Chief Executive, SunWater.