



# Final Service and Performance Plan 2023

Nogoa Mackenzie Bulk Water Service Contract

10 January 2024

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This Service and Performance Plan 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 plan relates, and the operations and activities actually undertaken by Sunwater during the relevant periods, may vary materially from the information contained in this plan. This plan should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this plan 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 plan or the information contained within it.

# At a glance


## Our customers

Most customers in this scheme are irrigators of cotton, citrus (mandarins, oranges, and lemons) and grapes. Other crops irrigated include wheat, pulse crops, sorghum, maize, lucerne, oats, macadamias, and sunflowers.

Water from Fairbairn Dam is released down the Nogoa River to Selma Weir for supply to the town of Emerald and is released to supply coal mining developments on the Bowen Basin.

## Our irrigation charges


Table 1 - Irrigation charges for 2023-24<sup>1</sup>


 <b>Charges by tariff group 2023-24</b>							
Nogoa Mackenzie Bulk Water		Irrigation charge <sup>2</sup>		Cost-reflective charge <sup>3</sup>		Δ to cost reflective	
Bulk water – Medium priority	Part A	6.03	\$/ML	7.09	\$/ML	-1.06	\$/ML
	Part B	0.75	\$/ML	0.90	\$/ML	-0.15	\$/ML
Bulk water – High priority	Part A	32.58	\$/ML	49.73	\$/ML	-17.15	\$/ML
	Part B	0.75	\$/ML	0.90	\$/ML	-0.15	\$/ML
Bulk water – Local management supply – Medium priority	Part A	5.90	\$/ML	7.09	\$/ML	-1.19	\$/ML
	Part B	0.75	\$/ML	0.90	\$/ML	-0.15	\$/ML
Bulk water – Local management supply – High priority	Part A	32.58	\$/ML	49.73	\$/ML	-17.15	\$/ML
	Part B	0.75	\$/ML	0.90	\$/ML	-0.15	\$/ML

- This table includes bulk water charges only. Distribution charges are set by Fairbairn Irrigation Network Ltd.
- Includes the Queensland Government's 15 per cent discount for irrigation customers. Refer to [www.rdmw.qld.gov.au](http://www.rdmw.qld.gov.au) for more information.
- Is the cost-reflective price determined by the Queensland Competition Authority (QCA) in its 2020–2024 irrigation price investigation (excluding dam improvement costs). Costs reflect lower bound cost recovery, i.e. recovery of future replacement and ongoing maintenance and operations.

For more information on Sunwater's fees and charges, refer to: [www.sunwater.com.au/customer/fees-and-charges/](http://www.sunwater.com.au/customer/fees-and-charges/)

## Our performance


 <b>Operations and maintenance costs</b>				
		QCA \$'000	Sunwater \$'000	Δ to QCA
Actual	2022-23	\$2,231.5	\$3,947.4	76.9% ▲
Forecast	2023-24	\$2,284.4	\$3,868.5	69.3% ▲

 <b>Expenditure funded by the annuity</b>				
		QCA \$'000	Sunwater \$'000	Δ to QCA
Actual	2022-23	\$1,010.4	\$3,302.9	226.9% ▲
Forecast	2023-24	\$531.5	\$1,816.3	241.7% ▲
Actual + Forecast	Σ Price path	\$1,838.0	\$6,366.8	246.4% ▲

▲	△	◀▶	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target	5% below the QCA target	10% below the QCA target

 <b>Water delivered</b>	Total		To irrigators		YoY change by group
2021-22	115,693	ML	95,378.7	ML	
2022-23	96,927	ML	77,641.4	ML	
	-16.2%	▼	-18.6%	▼	

▲	◀▶	▼
5%	0%	-5%

 <b>Service targets</b>	Exceedances	Notes
2021-22	36	Unplanned shutdowns (duration) and maximum number of interruptions were not met.
2022-23	0	Unplanned shutdowns (duration) and maximum number of interruptions were not met.

# Introduction

This Service and Performance Plan (S&PP) details a range of proposed scheme activities and projects and presents a breakdown of anticipated costs for review. It also sets out Sunwater's actual costs for 2022-23.

The purpose of this year's S&PP for Nogoia Mackenzie is to:

- examine Sunwater's performance in 2022-23 against cost and service targets
- present to customers Sunwater's projected costs<sup>1</sup> for 2023-24 and 2024-25
- consult with our customers on forecast operating and annuity-funded costs for 2023-24 and the forward program of works.

In addition to this S&PP, Sunwater submitted its irrigation pricing proposal to the Queensland Competition Authority (QCA) on 30 November 2023 which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The pricing proposal and associated customer material is available at: [www.sunwater.com.au/projects/price-path/](http://www.sunwater.com.au/projects/price-path/).

Input from customers is a valuable part of Sunwater's planning process and ensures that we invest in areas which support the services we provide to customers.

Sunwater engages with its customers both formally and informally throughout the year and customer feedback is a valuable part of our planning process.

The publication of an annual S&PP is an important part of the formal feedback process, providing a snapshot of Sunwater's performance over the most recently completed financial year, as well as an outline of the areas of focus for the current year.

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<sup>1</sup> All financial figures reported in this document are in nominal dollars, i.e. dollars of the day. Figures may not sum due to rounding.

We welcome and encourage your feedback on this S&PP. To have your say, please contact us via email or post:

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

Post: S&PP Feedback

PO Box 15536

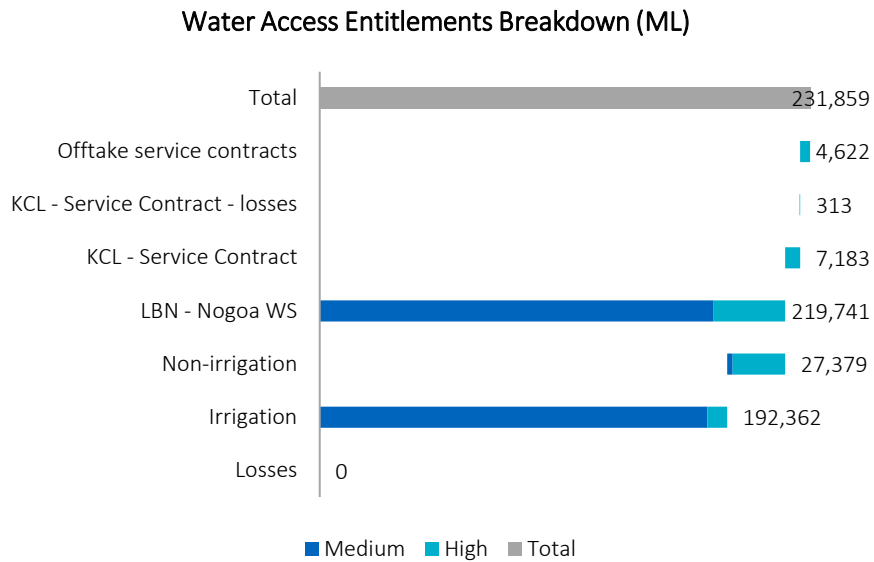
City East Qld 4002

# Delivering services to our customers

## Entitlements

The water allocations for each customer segment are shown below.

Figure 1 - Water access entitlements (as of 30 June 2023)

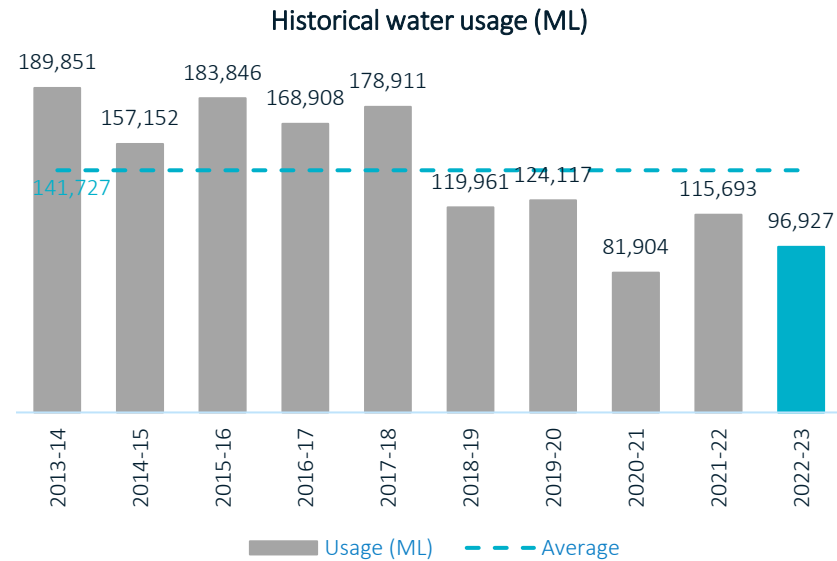


1. Includes bulk water, Blackwater Pipeline and the Gregory, Oakey Creek and Saraji Offtakes.

## Historical water usage

The chart below shows annual water usage for the past 10-years.

Figure 2 - Historical water usage for the past 10-years



- Usage in 202-23 was below the level of the 10-year average of 141,727 ML.
- Part B prices for the current period were set using a 20-year average of 168,696 ML.

## Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for Nogoja Mackenzie. Table 2 sets out our recent performance against selected service targets for this scheme.

Table 2 - Scheme service targets and performance

Service target		Target	Number of exceptions		
			2020-21	2021-22	2022-23
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	4 weeks	0	0	0
	For shutdowns planned to exceed 3 days	2 weeks	0	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0	0
Unplanned shutdowns – duration <sup>1</sup>	Unplanned shutdowns during Peak Demand Period	48 hours	0	0	0
	Unplanned shutdowns outside Peak Demand Period	5 working days			
Maximum number of interruptions <sup>2</sup>	Planned or unplanned interruptions per water year	6	14	36	0

- This is the number of times that the unplanned shutdown has exceeded the shortest of the peak/off peak periods.*
- Total number of customers that have been interrupted in excess of the target.*

In addition, Sunwater has company-wide customer interactions service targets. Our performance in 2022-23 against these service targets is shown in Table 3.

Table 3 - Customer interactions service targets and performance

Service target	Target	2022-23
Telephone answering <sup>1</sup>	80.00%	92.50%
Requests actioned within Service Level Agreement (SLA) timeframes <sup>2</sup>	> 95.00%	99.47%

- This target measures the percentage of 13 15 89 calls that are answered within 60 seconds.*
- This target measures the percentage of email or workflow requests (such as property transfers and temporary transfers) to the Customer Support team that are completed within the agreed SLAs. The SLA timeframes range between two and 10 business days, depending on the request.*

## Key infrastructure

Table 4 lists the key infrastructure used to deliver bulk water services to our customers in Nogoja Mackenzie.

Table 4 - Key infrastructure

Asset	Description	Total storage capacity (ML)
Fairbairn Dam	Earth and rock fill clay-core embankment, complemented by six secondary earth and rock fill saddle dams. Classified as a referable dam under the <i>Water Supply (Safety and Reliability) Act 2008</i> .	1,301,000
Selma Weir	Mass concrete weir.	1180
Bedford Weir	Mass concrete weir.	17,973
Bingegang Weir	Mass concrete weir.	8060
Tartrus Weir	Ogee-crested mass concrete weir.	12,000

# Cost of delivering services—Operating expenditure

Operating expenditure includes funds for: operations activities, (i.e. operations, electricity, and insurance); preventative maintenance; and corrective maintenance.

Table 5 sets out actual and forecast operating expenditure for Nogoia Mackenzie.

## Our performance in 2022-23

In 2022-23, operating costs were more than the QCA’s recommended cost target. Further information is provided in the pricing submission proposal and associated scheme summaries.

## Outlook for 2023-24

Nogoia Mackenzie Bulk Water Service Contract’s total operations budget in 2023-24 is 69.3 per cent above the QCA’s recommended cost target. Insurance is one of Sunwater’s largest expenditure items. These costs have increased significantly in recent years due to multiple flood events in Queensland and global insurable events impacting premiums. The escalation of insurance premiums has directly contributed to the rise in Sunwater's operating expenditure.

Sunwater's focus in 2023-24 is on performing operation and maintenance activities to a standard that ensures the reliability and functionality of the scheme whilst also meeting current asset maintenance standards and compliance obligations.

Table 5 - Operating expenditure<sup>1</sup>

Operations and maintenance costs - by sub-category									
	2022-23 actuals \$'000				2023-24 forecast \$'000				
	QCA	Sunwater <sup>3</sup>	Δ to QCA		QCA	Sunwater <sup>3</sup>	Δ to QCA		
Insurance	\$651.2	\$817.4	25.5%	▲	\$666.2	\$984.9	47.9%		▲
Electricity	\$19.5	\$20.5	4.9%	◀▶	\$19.8	\$25.7	30.1%		▲
Operations & maintenance	\$741.1	\$1,700.6	129.5%	▲	\$759.1	\$1,398.8	84.3%		▲
Support costs	\$819.6	\$1,409.0	71.9%	▲	\$839.4	\$1,459.0	73.8%		▲
<b>Total opex<sup>2</sup></b>	<b>\$2,231.5</b>	<b>\$3,947.4</b>	<b>76.9%</b>	<b>▲</b>	<b>\$2,284.4</b>	<b>\$3,868.5</b>	<b>69.3%</b>		<b>▲</b>

▲	△	◀▶	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target <5%	5% below the QCA target	10% below the QCA target

1. Reflects the QCA’s 2020–2024 irrigation price investigation final recommendations. Excludes recreational facility costs.
2. From 1 July 2020, irrigation customers no longer contribute towards the cost of operating and maintaining recreational facilities. These costs have been excluded from the total operating expenditure.
3. Sunwater’s 2022-23 actual expenditure figures presented in this table are pre-adjustment and will differ from our Irrigation Pricing Proposal and its engagement materials. Sunwater’s 2023-24 figures align with our pricing submission, these figures may differ from the budget.

# Cost of delivering services—Renewals annuity and non-annuity funded expenditure

## Renewals discussion

Sunwater recovers expenditure required to renew (maintain the current level of service an asset provides) its assets via a renewals annuity. The annuity treats all renewals related expenditure as an expense (i.e., not capital) and amortises a multi-year expenditure forecast (30-years) such that the amount customers pay is smoothed, relative to the actual expenditure profile. Negative opening balances reflect expenditure incurred by Sunwater which has not yet been recovered via the annuity contribution amount, while positive opening balances reflect expenditure which has been pre-recovered via the annuity contribution amount. Forecast annuity balances, and the impacts of budgeted spend, are shown in Table 6 below.

The QCA and Sunwater closing balances differ due to differences in the expenditure profile allowed by the QCA in its 2020-24 final recommendations and actual expenditure incurred by Sunwater in 2022-23 and what we expect to spend in 2023-24.

Annuity-funded expenditure includes funds for planned corrective maintenance (PCM), as well as large, one-off operations activities. Activities include monitoring of the asset condition to inform when an asset needs to be refurbished or replaced under the PCM program.

Non-annuity funded expenditure largely relates to Sunwater’s Dam Improvement Program and recreational facility costs.

## Our performance in 2022-23

### Performance against the QCA target

Sunwater updates our program of works based on our whole-of-life replacement and maintenance strategy, which looks at the risk and condition of each asset and uses this information to estimate the future work required to ensure the asset will continue to provide the required level of service into the future. Other factors such as changes in project delivery timing (e.g. due to weather) may also affect the program of works.

These factors mean the actual program of works delivered in any given year will differ to the program assessed by the QCA. At a project level, cost variances may also occur due to changes in the scope of work and cost inputs.

Further explanation of our performance is provided in the pricing submission and scheme summaries.

### Project level cost variances

Table 7 provides a comparison of the annuity-funded projects planned for 2022-23 and the actual projects undertaken, together with justification for the variances.

## Outlook

Details of the major annuity-funded projects planned for 2023-24 and 2024-25 period are set out in Table 8. In 2024/25, Sunwater plans to commence a risk reduction program at Fairbairn Dam and replace river metering.



Table 6 - Annuity and non-annuity funded expenditure and roll-forward<sup>1</sup>

Annuity funded expenditure (and roll forward)											
	2022-23 actuals \$'000					2023-24 forecast \$'000					
		QCA <sup>2</sup>	→	Sunwater <sup>4</sup>	Δ to QCA		QCA <sup>2</sup>	→	Sunwater <sup>4</sup>	Δ to QCA	
Opening balance	O	\$(3,951.6)	→	\$(3,932.1)	0.5%	◄►	\$(3,789.6)	→	\$(6,061.8)	60.0%	▲
<b>Annuity funded expenditure</b>	<b>E</b>	<b>\$(1,010.4)</b>	<b>→</b>	<b>\$(3,302.9)</b>	<b>226.9%</b>	<b>▲</b>	<b>\$(531.5)</b>	<b>→</b>	<b>\$(1,816.3)</b>	<b>241.7%</b>	<b>▲</b>
Annuity revenue <sup>3</sup>	R	\$1,345.1	→	\$1,345.1	-	-	\$1,405.1	→	\$1,405.1	-	-
Interest	I	\$(172.8)	→	\$(171.9)	-	-	\$(165.7)	→	\$(265.0)	-	-
Closing balance	C	\$(3,789.6)	→	\$(6,061.8)	60.0%	▲	\$(3,081.7)	→	\$(6,738.0)	118.6%	▲
<i>C = (O + E + R + I)</i>											
Other expenditure (not part of prices)											
Dam improvement program		-		\$0.0	-		-		\$0.0	-	
Recreational facility projects <sup>1</sup>		-		\$0.0	-		-		\$0.0	-	
Metered offtakes and dividend reinvestment		-		\$0.0	-		-		\$0.0	-	

▲	△	◄►	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target <5%	5% below the QCA target	10% below the QCA target

1. Forecast annuity-funded costs from 2020-21 exclude recreational facility projects.
2. Reflects the QCA's 2020–2024 irrigation price investigation final recommendations.
3. The annuity contribution is included in the prices paid by bulk water and distribution customers. From 2020-21 to 2023-24, the annuity contribution is based on the QCA's irrigation price investigation 2020–2024 final recommendations.
4. Sunwater's 2022-23 actual expenditure figures presented in this table are pre-adjustment and will differ from our Irrigation Pricing Proposal and its engagement materials. Sunwater's 2023-24 figures align with our pricing submission, these figures may differ from the budget.

## Comparison of forecast and actual annuity-funded projects for 2022-23

The below table sets out the major annuity-funded projects planned for Nogoa Mackenzie in 2022-23<sup>2</sup> and the actual projects undertaken.

Table 7 - Comparison of forecast and actual annuity-funded projects for 2022-23

Facility	Activity description	Forecast \$'000	Actual \$'000	Commentary
Fairbairn Dam	Risk reduction program – investigation phase.	2000	1555	Underspent forecast due to rainfall and hydrology studies needing to be done over a longer period. Continuing through 2023-2024.
Scheme	Replace – river metering to Australian Standard (AS) 4747 to meet regulatory compliance.	411	555	This is a rolling annual program for Sunwater’s large metering fleet. Each site is unique, making accurate advance forecasting difficult to achieve. The scope of works was greater than anticipated.
Fairbairn Dam	Study – comprehensive inspection to meet regulatory compliance.	160	0	The five yearly comprehensive inspection of Fairbairn Dam was deferred to 2023-24 based on Section 8 of the updated Dam Safety Condition Schedule - Fairbairn Dam ID: #269 (DRDMW 2021).
Bedford, Tartrus and Selma weirs	Install – CCTV systems to mitigate known safety risks.	96	118	Sunwater went to the competitive market which was higher than estimated.
Fairbairn Dam	Inspect – spillway bridge and inlet tower bridge Level 2 inspections based on Department of Transport and Main Roads’ Inspection Manual.	80	67	Sunwater went to the competitive market which was higher than estimated.
Fairbairn Dam	Refurbish – right bank outlet works guard and regulating gate hoists, ropes, and electrics.	191	450	The scope of work was greater than anticipated. The market value for materials, resources and effort was higher than estimated. Additionally, a hoist rope failure occurred prior to the commencement of this project which required emergency repairs to restore the hoist. This cost was added to this project.
Fairbairn Dam	Refurbish – right bank conduit concrete due to known asset condition and age.	119	135	This project was completed broadly in line with the budget.
Fairbairn Dam	Replace – install security/public fencing across the top of saddle dam 4.	32	52	The market value for contractors was higher than anticipated.
Multiple	Non-scheduled projects	-	369	This expenditure relates to the below projects: <ul style="list-style-type: none"> <li>Arc flash 1 was completed to understand and assess the arc flash assets in the Service Contract from a risk category rating perspective. This is a multi-year project required to comply with updated arc flash standards and will lead into a secondary program(\$50k)</li> </ul>

<sup>2</sup> Based on information extracted from Sunwater’s systems in mid-2023. See the 2023 S&PP at [www.sunwater.com.au/schemes/Nogoa-Mackenzie/](http://www.sunwater.com.au/schemes/Nogoa-Mackenzie/)

Facility	Activity description	Forecast \$'000	Actual \$'000	Commentary
				<ul style="list-style-type: none"> <li>• an investigation to confirm the groundwater conditions beneath the spillway (\$95k)</li> <li>• close out work on the comprehensive risk assessment at Fairbairn Dam and related inputs (\$28k)</li> <li>• tree removal required at Bedford weir to improve dam safety (\$78k)</li> <li>• trash rack refurbishment at Fairbairn Dam was brought forward from FY24 (\$80k)</li> <li>• urgent fire safety sign upgrades required at Fairbairn Dam (\$36k)</li> <li>• electrical drawing review and update at Fairbairn Dam (\$0.70k)</li> <li>• flood damage inspections completed by operations team due to wet season events (\$1k)</li> </ul>
<b>2022-23 Total</b>		<b>3089</b>	<b>3303</b>	

## Annuity-funded projects for 2023-24 and 2024-25

The below table sets out Sunwater’s currently planned annuity-funded projects for 2023-24 and 2024-25<sup>3</sup> period for this scheme. While the immediate program is well defined, estimates become more uncertain further into the planning timeline. Forecasts are likely to change in future S&PPs, reflecting changes in project delivery timing; asset condition and risk updates; outcomes from scheduled asset inspections; and customer feedback. The data in Table 8 is presented at a granular level and may not align with the overarching program names in our pricing submission.

*Table 8 - Forecast annuity-funded projects planned for 2023-24 and 2024-25*

Year	Facility	Activity description	Forecast \$'000
2023-24	Fairbairn Dam	Refurbish – periodic retesting of stressed anchors as per dam safety recommendations.	692
	Nogoa Mackenzie River	Replace - customer meters to comply with AS4747 standards and requirements.	346
	Fairbairn Dam	Study – hydrology assessment based on the outcome of the dam safety comprehensive risk assessment.	231
	Fairbairn Dam	Inspection – 5 yearly comprehensive dam safety inspection to meet regulatory requirements	154
	Fairbairn Dam	Refurbish – access roads to the chase, right bank gatehouse, Selma pump station, bullring structure and spillway dissipator areas.	145
	Tartrus Weir	Refurbish – repair rock protection on the left bank based on known condition and age.	69
	Fairbairn Dam	Refurbish – right bank outlet works trash rack No. 1 and No. 2 based on known asset condition and age	61
	Fairbairn Dam – Saddle Dam 2	Refurbish – outlet works trash racks and guides based on known asset condition and age.	41
	Fairbairn Dam	Refurbish – ponded area and general fencing based on known condition and age.	35
	Fairbairn Dam	Replace – upgrade safety signs based on condition and age.	23
	Multiple	There are three other annuity-funded projects planned for 2023-24 related to cleaning the weep holes and drainage system at Bedford Weir, switchboard refurbishment at left bank siphon; and a study investigating the refurbishment of the upstream face at Fairbairn dam.	20
	<b>2023-24 Total</b>		<b>1817</b>
2024-25	Nogoa Mackenzie River	Replace – customer meters to comply with AS4747 standards and requirements.	355
	Fairbairn Dam	Study – dam safety comprehensive risk assessment (CRA) to meet regulatory requirements.	345
	Scheme	Instrumentation program to upgrade current instrumentation to meet new dam safety standards.	202
	Scheme	Study – arc flash risk assessment program to identify arc flash hazards.	125
	Fairbairn Dam	Study – data gap analysis as part of dam safety CRA.	35

<sup>3</sup> The project forecasts provided in this table align with our pricing submission. It is important to acknowledge that these projects are inherently dynamic and susceptible to changes influenced by various factors.

Year	Facility	Activity description	Forecast \$'000
	Fairbairn Dam	Refurbish – vacuum pump on left bank siphon based on known condition and age.	32
	Tartus Weir	Replace – downstream gauge boards based on known condition and age.	31
	Tartus Weir	Refurbish – left abutment handrails based on known condition and age.	7
	Bingegang Weir	Install – steel flow splitters to reduce spill event noise and vibration.	144
	<b>2024-25 Total</b>		<b>1276</b>