

Barker Barambah Water Supply Scheme

Scheme Summary

Irrigation pricing proposal

1 July 2025 to 30 June 2029

Context

Barker Barambah Water Supply Scheme (Barker Barambah) prices were set (gazetted) for the period 2020-21 through to 2024-25 (current period) via Rural Pricing Direction Notices issued by the Queensland Treasurer in 2020¹, 2021² and 2023³.

In early 2023, the Queensland Government directed the Queensland Competition Authority (the QCA) to recommend prices for Barker Barambah irrigation services for the next price path period, covering **1 July 2025 to 30 June 2029**.

This scheme level summary forms part of Sunwater’s submission to the QCA and provides irrigation customers with an overview of our proposal. It should be read in conjunction with the complete submission and includes:

- proposed prices and their basis
- engagement with customers, their feedback and how it was addressed.

- operating and renewals expenditure forecasts
- the overall revenue requirement.

Entitlements and usage

Barker Barambah holds total water access entitlements (WAE) of 34,315ML (**Figure 1**). Most entitlements are medium priority and held by customers who use water for irrigation purposes.

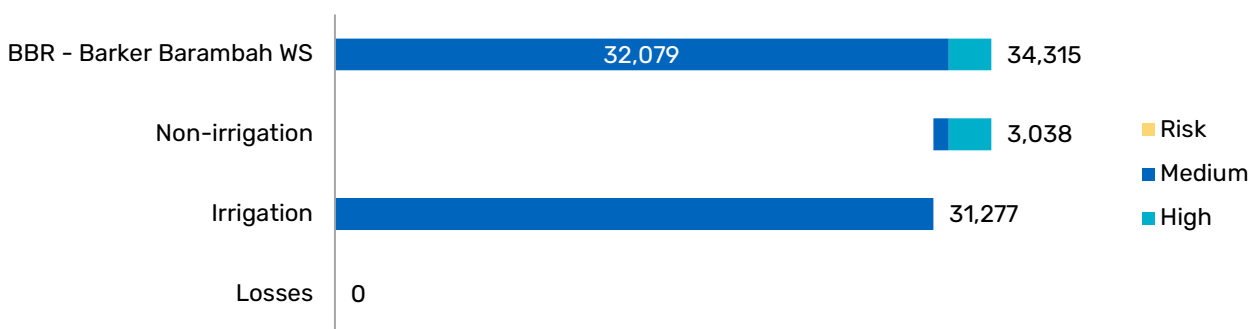
Long-term (20-year) average annual usage in the scheme is 11,155ML per annum. This is equivalent to 32.5 per cent of total WAE, down from 42.0 per cent at the time of the last irrigation pricing review.

Tariff groups

Barker Barambah has two different tariff groups, which are differentiated based on cost as set out in **Table 1**.

Redgate Relift customers (and their entitlements) are identified as a separate group within Sunwater’s billing system.

Figure 1 - Barker Barambah water access entitlements (as at 30 June 2023)



¹ Queens and Government Gazette No. 67 (July 2020) Sunwater Rural Water Pricing Direction Notice (No. 1) 2020
² Queens and Government Gazette No. 25 (June 2021) Sunwater Rural Water Pricing Direction Notice (No. 1) 2021

³ Queens and Government Gazette No. 54 (March 2021) Sunwater Irrigation Water Pricing Direction Notice (No. 1) 2023

Table 1 - Barker Barambah tariff groups

Tariff group	WAE (ML)	Basis for differentiation	Pricing exclusions
Barker Barambah - River	34,315	Cost - Customers in this tariff group do not benefit from electricity consumption at the Redgate pump station. Electricity expenditure at this pump station is material.	Electricity costs
Barker Barambah - Redgate Relift	1,452 ^A	Cost - Customers in this group do benefit from the Redgate pump station. Their tariff comprises the base Barker Barambah - River charge plus an additional electricity charge apportioned to users within this group.	Nil

Note A - This volume is a sub-set of the total 34,315ML held within the scheme.

Proposal in summary

During engagement with scheme customers, Sunwater outlined proposed operating costs and renewals expenditure required to deliver irrigation services over the next price path period; required revenue and price calculations; as well as two potential cost recovery changes with implications for customer prices. Balancing what we heard from customers with the benefits and risks of these changes we propose to:

1. recover renewals expenditure via a regulated asset base (RAB) methodology
2. refresh our Service and Performance Plans (S&PPS).

Further information relating to engagement outcomes is provided in the following section.

Proposed prices by tariff group

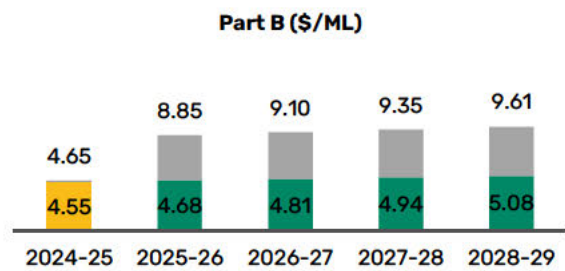
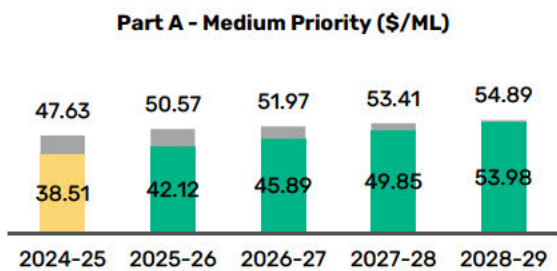
The prevailing price for 2024-25 is shown for comparison purposes with forecast prices for the review period. All discounts have been removed for ease of comparison. The green bars within the below chart reflect recommended irrigation prices for the price path period. Values shown at the top of the chart reflect cost-reflective prices for the charge. The grey bar element reflects the component of cost-reflective prices that Sunwater recovers via a community service obligation payment from the Queensland Government.

Prices reflect a RAB methodology.

Legend:

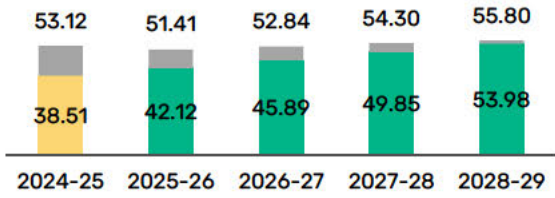
- / Irrigation price (gazetted)
- / Recommended irrigation price (proposed)
- / Cost reflective irrigation price (proposed)

Barker Barambah River

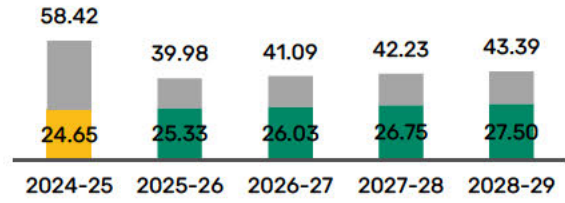


Barker Barambah – Redgate relift

Part A - Medium Priority (\$/ML)



Part B (\$/ML)



Engagement

Sunwater contacted Barker Barambah irrigation customers multiple times during the development of the pricing proposal.

How we engaged

Over the course of the last price path Sunwater has implemented a series of initiatives to improve customer experience and enable us to better understand and meet customers' needs and expectations. These initiatives include the Sunwater Customer App, the Online Portal, the introduction of the Water Trading Board, a formalised complaints and feedback process, and the establishment of Customer Advisory Committee forums.

Reflecting this shift, Sunwater established a three-stage stakeholder engagement strategy for this price path to inform and consult with customers during the submission development process.

We ensured every irrigation customer who wanted to engage could do so, by hosting:

- face-to-face customer meetings during each of the three stages of engagement
- three online forums open to irrigation customers in all schemes.

We distributed and published project communication materials, including fact sheets and copies of presentations delivered at meetings, to ensure all customers had the opportunity to:

- learn about how irrigation prices are set
- review draft future costs and prices
- learn about and provide feedback on proposed changes to:
 - Service and Performance Plans
 - renewals expenditure recovery through irrigation prices
 - a permanent, symmetrical electricity cost pass-through mechanism.



- ✓ Dedicated project website and email



- ✓ Emails and SMS sent about proposals and GoVote process
- ✓ Invitations sent via email, SMS and letter
- ✓ Subsequent reminders



- ✓ Five fact sheets
 - RAB
 - ECPT
 - S&PPs
 - Stage 1 & 2 scheme specific overviews



- ✓ 1 formal customer submission in response to Sunwater's proposals
- ✓ 1 formal Sunwater response
- ✓ 1 scheme summary report



- ✓ Irrigation Customer Invoice Calculator



- ✓ 3 face to face meetings
- ✓ 3 online meetings

What we heard

During our meetings we discussed matters of interest (**Table 2**) to Barker Barambah customers. Generally, we were able to address questions and queries in the meeting. Based on discussions in these meetings, a key action for Barker Barambah included detailing additional information on renewals expenditure in our Stage 3 engagement material on future costs for the scheme (depicted by cost spikes in the renewals forecast).

This information is contained in the **Expenditure Focus** section of this summary.

GoVote

Twenty-four Barker Barambah customers responded to the online survey, representing approximately 17.8 per cent of eligible irrigation customers. Customers received multiple communications about the opportunity to participate from both Sunwater and the provider, GoVote. For a full explanation of the GoVote process and how Sunwater used this information to finalise its proposal, refer to the Customer Engagement chapter of Sunwater's pricing submission.

Table 2 - Key customer interests

Forum details	Attendees	Key customer interests
Stage 1 engagement		
<p><i>Forum:</i> Face-to-face engagement with <u>Barker Barambah</u> customers</p> <p><i>Theme:</i> Learn how irrigation prices are set and how you can be involved in influencing Sunwater's pricing submission to the QCA</p>	9	Inefficient asset management How Sunwater reduces electricity costs
<p><i>Forum:</i> Teams webinar, <u>all schemes</u> invited</p> <p><i>Theme:</i> Learn how irrigation prices are set and how you can be involved in influencing Sunwater's pricing submission to the QCA</p>	12	How prices are set - general
Stage 2 engagement		
<p><i>Forum:</i> Face-to-face engagement with <u>Barker Barambah</u> customers</p> <p><i>Theme:</i> Draft future prices and the following proposals for customer feedback:</p> <ul style="list-style-type: none"> • changes to Service and Performance Plans • changes to the way renewals expenditure is recovered through irrigation prices • a permanent, symmetrical electricity cost pass-through mechanism in seven schemes. 	17	Customer values – water reliability How Sunwater reduces insurance costs RAB v annuity – forecast cost spikes and impact on prices under each methodology QCA transition rate Community Service Obligation RAB v annuity – government loans to fund expenditure under the RAB RAB v annuity – positive and negative annuity balances ECPT trial ECPT – impacts on prices Inefficient asset management Under-recovery How Sunwater reduces electricity costs How Sunwater reduces insurance costs Cost recovery model Recreation areas
<p><i>Forum:</i> Teams webinar, <u>all schemes</u> invited</p> <p><i>Theme:</i> Draft future prices and proposals for customer feedback</p>	15	Community Service Obligation
Stage 2 engagement		

<p><i>Forum:</i> Face-to-face engagement with <u>Barker</u> <u>Barambah</u> customers</p> <p><i>Theme:</i> Outline Sunwater s pricing proposal, having taken into account customer feedback and preferences</p>	No attendees	Not applicable
<p><i>Forum:</i> Teams webinar, all schemes invited</p> <p><i>Theme:</i> Outline Sunwater s pricing proposal, having taken into account customer feedback and preferences</p>	7	RAB v annuity

Other feedback

Sunwater responded to correspondence in relation to increased costs and impacts on prices, how announced allocations (AAs) are calculated and why there are instances where Barambah Creek flows do not impact AAs; the cost of a 2017 pump replacement; the operational management of Bjelke-Petersen Dam; day-to-day cost cutting; the Government’s role in the price path process; and Sunwater’s efforts to manage increasing costs associated with electricity.

A copy of their correspondence and Sunwater's response is appended to this document.

Proposal to change the method of renewal cost recovery

This proposal was put forward as a change to all water supply schemes. Considering feedback from all sources (including the GoVote results shown on **Figure 2**, **Figure 3** and **Figure 4**), and the benefits to be gained, Sunwater has included a shift to a RAB-based recovery of renewals expenditure as part of its submission.

Our full reasoning for adopting a RAB-based renewals recovery proposal is outlined in Sunwater’s pricing submission.

Proposal to refresh Service and Performance Plans

This proposal was put forward as a change to all water supply schemes. Considering feedback from all sources, and the benefits to be gained, Sunwater proposes to adopt the refreshed S&PP format and process.

Our full reasoning is outlined in Sunwater’s pricing submission.

Figure 5 reproduces the overall responses we received during our GoVote process.

Figure 2 - How schemes responded to the RAB proposal – question and responses

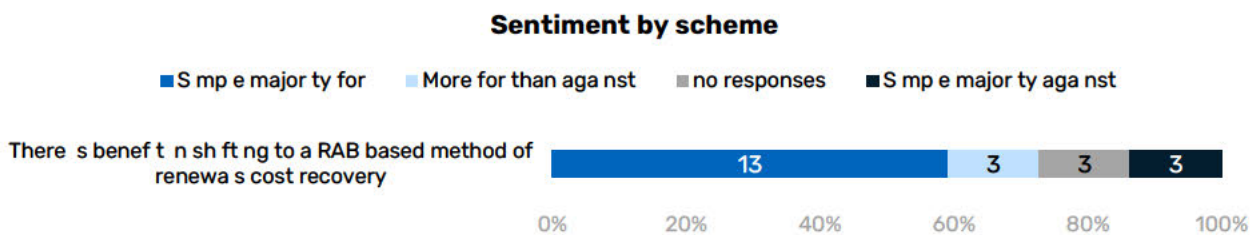


Figure 3 - How Barker Barambah responded to the RAB proposal – question and responses

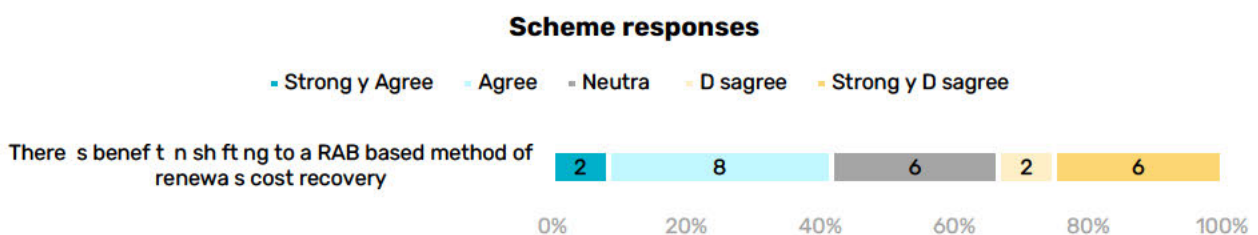


Figure 4 - How Sunwater's irrigation customers responded to the RAB proposal – question and responses

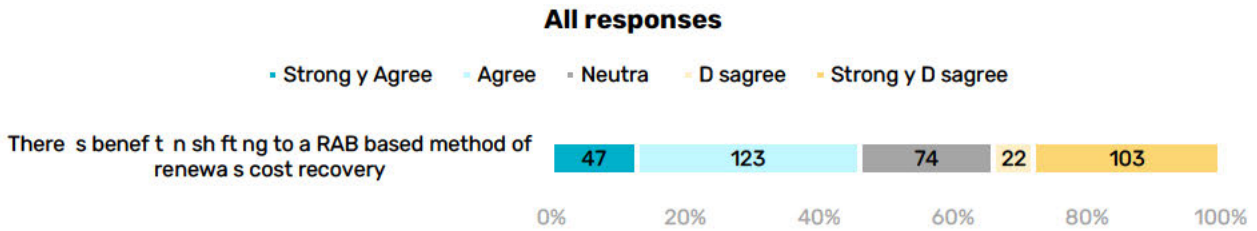
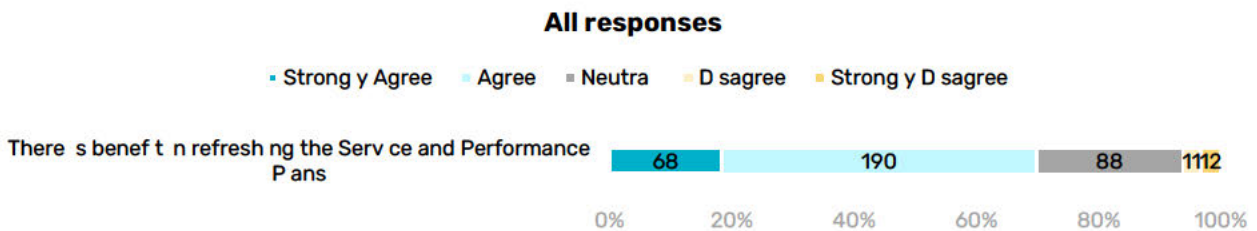


Figure 5 - How Sunwater's irrigation customers responded to the S&PP proposal – question and responses



Proposal to recover electricity costs via a pass-through

This was the only proposal Sunwater committed to evaluating and adopting on a scheme-by-scheme basis.

Barker Barambah – Redgate Relift customers were able to provide feedback on the electricity cost pass-through mechanism proposal. Eight of the nine customers in this tariff group responded.

Seven “strongly disagree” responses were received – a clear indication that Redgate Relift customers do not wish to adopt a permanent electricity cost pass-through mechanism.

Sunwater is therefore NOT proposing to adopt an ECPT mechanism for the Redgate Relift tariff group.

Service standards

The current service standards that apply for the Barker Barambah scheme were included as part of our Stage 2 engagement. These are the customer service standards that drive the work we do and influence operations, maintenance and renewals expenditure in this scheme.

Figure 6 - How Barker Barambah customers responded to the ECPT proposal – question and responses

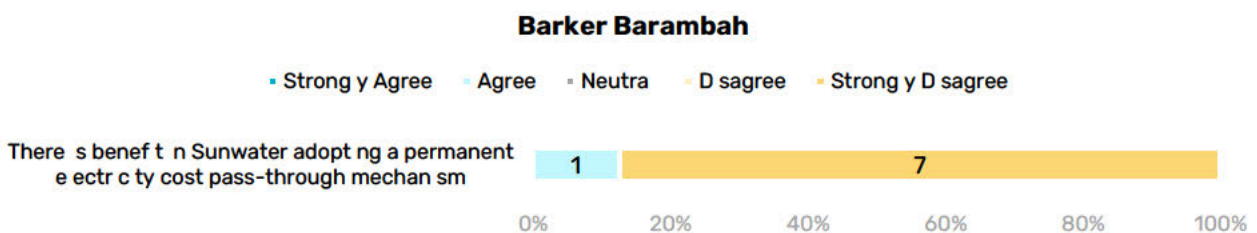


Table 3 - Service standards for Barker Barambah

Service standards	Standard	Target
<i>Planned shutdowns – notification</i>	For shutdowns planned to exceed 2 weeks	8 weeks
	For shutdowns planned to exceed 3 days	2 weeks
	For shutdowns planned to be less than 3 days	5 days
<i>Unplanned shutdowns – duration</i>	Unplanned shutdowns will be fixed so that at least partial supply can be resumed	48 hours
<i>Unplanned shutdowns – notification</i>	Affected customers will be notified of the likely duration of the interruption to supply	Within 24 hours of Sunwater learning of the event or by the end of the first business day following the event, whichever is the earlier
<i>Maximum number of interruptions</i>	Planned or unplanned interruptions per water year	10
<i>Meter repairs</i>	Faults causing restrictions to supply will be repaired	Within 1 working day
<i>Complaints and enquiries</i>	Initial response (Acknowledge)	5 working days
	Resolve or provide written response	21 days

Expenditure focus

This section shows the final forecast operating expenditure (opex) and renewals expenditure for the Barker Barambah scheme.

Operating expenditure

Sunwater’s opex forecast was developed using the base-step-trend methodology presented in our pricing submission.

Sunwater’s proposed base year (2022-23 actuals after adjustments) of \$1.35M is shown on **Figure 7** and is \$0.17M (15 per cent) higher than the QCA’s allowance for the same year (after adjustment for actual inflation).

Key drivers of this difference include:

- increases in categories such as labour (direct), support costs, and other expenditure (which includes land tax, rates and vehicle leasing, which was previously captured under support costs)
- decreases in electricity and materials.

Operations and maintenance have been split into other direct costs, materials, contractors, and direct labour to better explain the drivers of higher costs.

Support costs include indirect activities (those that support a specific direct activity such as dam safety, pricing and regulation, and water planning); and local and corporate support, such as depots, local administration teams and offices, finance, payroll, procurement, human resources, information and communications technology, cybersecurity, and other necessary costs of doing business.

Price path opex forecast

The Barker Barambah opex forecast for the price path period is shown in **Table 4**.

The base-step-trend approach to develop our forecasts is described in detail in Sunwater’s pricing submission. In summary, we take the base-year (**Figure 7**) and apply assumptions relating to inflation plus a step change in opex associated with our billing system renewal.

Table 5 shows how the relative mix of opex cost categories is changing under Sunwater’s forecast prices.

For each dollar of total opex spent, the percentages shown reflect the cents the category contributes.

Figure 7 - Scheme level breakdown of difference between Sunwater’s base year and QCA allowance (2022-23)

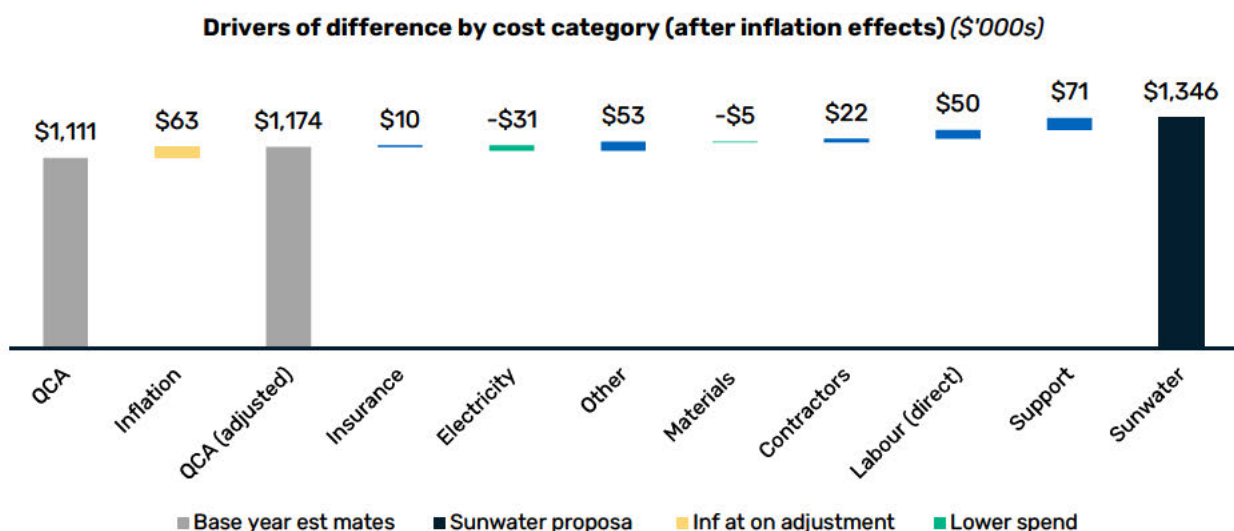
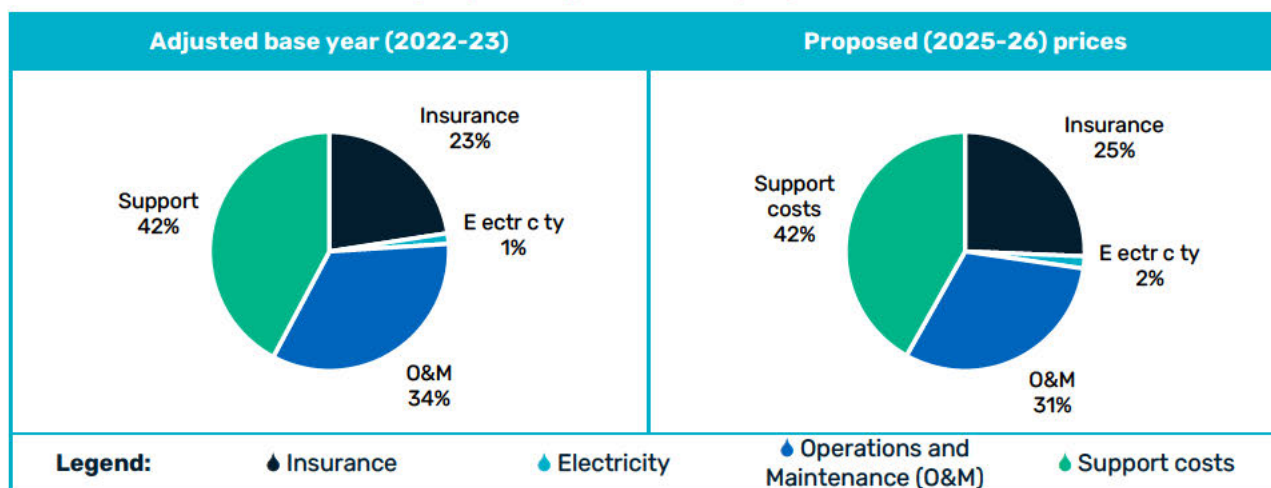


Table 4 - Barker Barambah opex forecasts for price path period (\$'000s)

Cost categories	2025-26	2026-27	2027-28	2028-29
Insurance	\$413.2	\$423.0	\$432.5	\$441.2
Electricity	\$26.5	\$27.1	\$27.7	\$28.3
Operations and maintenance ¹	\$497.4	\$509.4	\$520.1	\$530.5
Support costs	\$674.2	\$687.4	\$702.2	\$716.4
Cost transfer	\$0.0	\$0.0	\$0.0	\$0.0
Opex - BST sub-total	\$1,611.2	\$1,646.8	\$1,682.5	\$1,716.3
Renewals opex	\$0.0	\$147.6	\$258.5	\$68.4
Opex total	\$1,611.2	\$1,794.4	\$1,941.0	\$1,784.7

Note 1: Includes preventative and corrective maintenance categories.

Table 5 - Relative contribution of major opex categories to total opex (prior to cost transfers)



Forecast premium increases mean that insurance costs will account for a more significant portion of total opex for Barker Barambah over the price path period.

Renewals opex has been excluded as this is a new category that applies under a RAB-based recovery of renewals expenditure.

Renewals (capital)

This section addresses actual renewals expenditure for the 2019-20 to 2022-23 period, forecasts for the remainder of the current pricing period (2023-24 to 2024-25) and forecasts relevant for the price path period. Sunwater's approach to the delivery and forecast of renewals expenditure is set out in our pricing submission.

Discussion of current period expenditure is presented with reference to the annuity funding methodology, while forecasts for the price path period refer to the RAB-funding methodology. As Sunwater's RAB-funding methodology is a proposal for assessment by the QCA and Government, the full forecast required for an annuity-funding methodology is presented for completeness.

Current period (plus roll-forward)

Sunwater expects to have delivered \$7.1M in renewals activities for the 2019-20 to 2024-25 period. The QCA allowance⁴ for the same period was \$5.1M. This is shown in **Table 6** which also includes the roll-forward of annuity expenditure from the QCA's 2018-19 closing balance to 30 June 2025.

Barker Barambah is forecast to have a negative annuity closing balance.

The opening RAB balance for the Barker Barambah Scheme has been set at \$4.03M, consistent with the approach set out in Sunwater's pricing submission.

Significant projects delivered (or forecast to be delivered) in this period (by value) are shown in **Table 7**.

Price path period

Sunwater's submission document describes in detail the way we have developed our renewals expenditure forecast for the next price path period.

Table 8 shows the forecast for Barker Barambah for the price path period, with a focus on the top five programs by aggregate spend. Each program forecast comprises a mix of capex and opex, with values separated at the bottom of the table used for the setting of prices.

A program comprises several individual projects that have common characteristics. For example, a valve replacement program will comprise multiple valve replacements over the period. The justification (need) for each project within a program is generally the same and similar approaches are typically adopted for the estimation of project costs.

The largest projects (outside major programs) forecast to be delivered in this period (by value) are shown in **Table 9**.

An additional \$1.383M in capital expenditure (not shown in **Table 8**) has been added to 2025-26 as the Barker Barambah portion of the \$42.4M whole-of-business project to renew Sunwater's billing system.

Table 6 - Current pricing period expenditure and renewals annuity roll-forward (\$'000s)

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25		
	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast		
			<i>Current price path period</i>						Aggregate spend
Opening balance		-\$866.4	-\$2,030.8	-\$5,185.3	-\$5,167.6	-\$4,470.1	-\$4,427.4		
Expenditure		-\$1,126.5	-\$3,753.8	-\$512.0	-\$215.9	-\$910.6	-\$584.2	-\$7,103.1	
Insurance proceeds									
Annuity contribution		\$0.0	\$688.1	\$756.4	\$1,139.4	\$1,148.8	\$1,174.5		
Interest		-\$37.9	-\$88.8	-\$226.7	-\$225.9	-\$195.4	-\$193.6		
Closing balance¹	-\$866.4	-\$2,030.8	-\$5,185.3	-\$5,167.6	-\$4,470.1	-\$4,427.4	-\$4,030.7		

Note 1: Closing balance for 2018-19 was set by the QCA at the last pricing review. The calculated (forecast) 2024-25 value is used to set the opening balance of the regulated asset base for the price path period.

⁴ Revenue Model issued by QCA with its Final Model (January 2020)

Table 7 - Significant projects (by value) delivered in this period (\$'000s)

Project name	Year	Value
20BBA03 - Silverleaf Weir Refurbishment	2020-21	\$4,418.3
20BBA09 - Bjelke-Petersen Dam - CRA Input Studies - Geotech	2020-23	\$823.1
Bjelke-Petersen Dam Comprehensive Inspection	2020-23	\$277.8

Table 8 - Price path period - forecast renewals expenditure (\$'000s)

Category	2025-26	2026-27	2027-28	2028-29	Aggregate	Percentage
18. Dam Instrumentation Program	\$0.0	\$0.0	\$2,492.8	\$0.0	\$2,492.8	58%
2. Meter Renewal Program	\$148.8	\$153.6	\$154.7	\$167.4	\$624.5	15%
20. Dam Safety Management Program	\$399.7	\$0.0	\$0.0	\$0.0	\$399.7	9%
17. Arc Flash Program	\$107.2	\$66.4	\$0.0	\$0.0	\$173.6	4%
12. Civil and Roads (inlet / outlet towers)	\$0.0	\$0.0	\$62.9	\$0.0	\$62.9	1%
Remaining programs	\$0.0	\$41.9	\$62.3	\$68.4	\$172.6	4%
Sub-total - programs	\$655.7	\$261.9	\$2,772.7	\$235.8	\$3,926.0	92%
Projects not captured in programs	\$0.0	\$105.7	\$238.3	\$0.0	\$344.1	8%
Total	\$655.7	\$367.6	\$3,011.0	\$235.8	\$4,270.1	100%
Capex	\$655.7	\$220.0	\$2,752.6	\$167.4	\$3,795.6	89%
Renewals opex	\$0.0	\$147.6	\$258.5	\$68.4	\$474.5	11%

Table 9 - Significant individual projects (by value) to be delivered during the price path period (\$'000s)

Project name	Year	Value	Percentage total
Instrumentation Program	2025	\$2,492.8	58%
Replace Meter Program Meter Outlets-Barker-Barambah Reg D Stre	2025	\$503.2	12%

Beyond price path period

Expenditure beyond the price path is not relevant to the setting of prices for the 2025-26 to 2028-29 period under a RAB methodology. It is presented in **Figure 8** for completeness. This profile underpins the alternative annuity-base prices presented in the **Revenue and pricing** section of this summary.

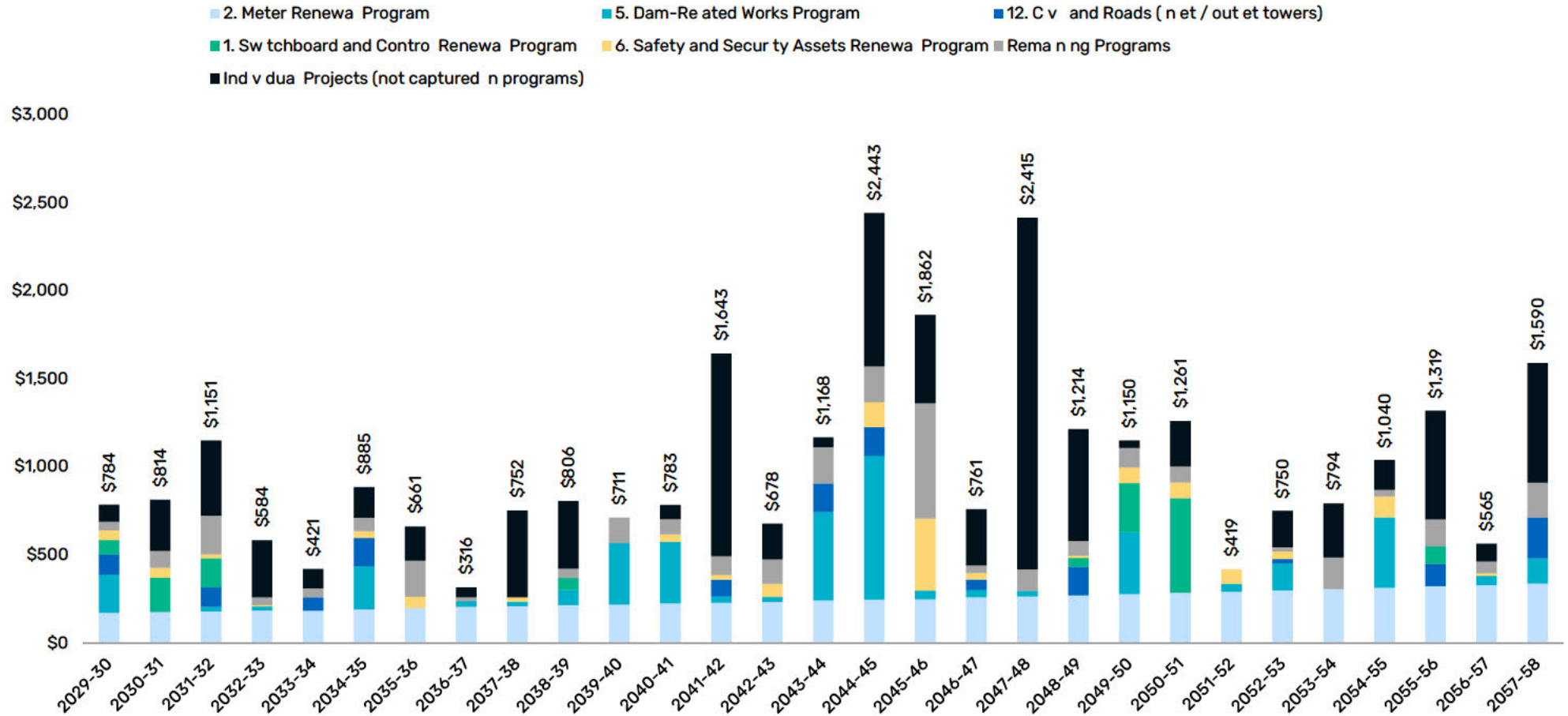
Significant (by value) projects forecast for completion between 2029-30 and 2057-58 are shown in **Table 10**.

Expenditure commencement dates are shown. For programs, expenditure will typically occur throughout the period.

Table 10 - Key projects beyond the price path period (2029-30 to 2057-58) period (\$'000s)

Project name	Commencement year	Value	Percentage total
Replace Meter Program Meter Outlets-Barker-Barambah Reg D Stre	2025	\$5,748	19%
Study: Comprehensive Risk Assessment Comprehensive Inspection - Bjelke-Petersen Dam	2030	\$1,808	6%
Customer Meter Replacement Allocation Meter Outlets-Upper Redgate	2025	\$1,386	5%
Comprehensive Inspection - Bjelke Petersen Dam	2025	\$1,005	3%
Replace - Redgate Diversion Pipeline	2027	\$745	3%
Other	Varies	\$19,047	64%
Total		\$29,739	

Figure 8 - Expenditure by major program beyond the price path period (relevant under an annuity method of cost recovery)



Revenue and pricing

This section shows the final revenue requirement at scheme level. Values shown are prior to allocation to fixed (high or medium priority) or variable charges. These values represent Sunwater's estimate of the revenue required to continue to meet customer service standards and regulatory obligations under the current regulatory framework.

Revenue requirement

Table 11 brings together the price-path related expenditure building blocks. This includes a revenue offset building block as well as adjustments for the return of annuity positive balance funds (where applicable to a scheme), insurance review event funds and the QCA's review fee, which is applied only to irrigation entitlements.

Prices

As outlined above (and in detail in our pricing submission), Sunwater is proposing to shift to a RAB-based recovery of renewals expenditure. Prices under a RAB methodology are presented in the **Proposal in summary** section.

The following tables show recommended irrigation prices (by tariff group) for the price path period for both the RAB and annuity cost recovery methodologies. They also show the difference between the two to highlight the impact of the change on irrigators.

Table 11 - Forecast revenue requirement (inclusive of revenue adjustments) (\$'000s)

Building block	2025-26	2026-27	2027-28	2028-29	Aggregate	Percentage
Price path related expenditure						
Opex	\$1,611.2	\$1,646.8	\$1,682.5	\$1,716.3	\$6,656.8	70.9%
Renewals opex	\$0.0	\$147.6	\$258.5	\$68.4	\$474.5	5.1%
Capital returns	\$274.1	\$377.0	\$537.3	\$691.2	\$1,879.7	20.0%
Tax allowance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.0%
Sub-total	\$1,885.3	\$2,171.5	\$2,478.3	\$2,475.9	\$9,011.0	96.0%
Revenue adjustments						
Revenue offsets	-\$6.9	-\$7.1	-\$7.3	-\$7.5	-\$28.8	-0.3%
Insurance review	\$80.3	\$82.6	\$84.9	\$87.0	\$334.8	3.6%
QCA Fee ¹	\$17.8	\$18.3	\$18.8	\$19.3	\$74.3	0.8%
Sub-total	\$91.2	\$93.8	\$96.4	\$98.9	\$380.3	4.0%
Total	\$1,976.5	\$2,265.3	\$2,574.7	\$2,574.8	\$9,391.2	100.0%

Note 1: The QCA fee is apportioned to each scheme on the basis of irrigation entitlements.

Barker Barambah – River

Recommended prices for the Barker Barambah – River tariff group are shown in **Table 12**.

This group does not pay for electricity and is not eligible for the Part E and Part F tariffs proposed under an electricity cost pass-through mechanism.

Barker Barambah – Redgate Relift

Recommended prices for the Barker Barambah – Redgate Relift tariff group are shown in **Table 13**.

This group pays for electricity and is eligible for the Part E and Part F tariffs proposed under an electricity cost pass-through mechanism, however Sunwater is not proposing to adopt an ECPT mechanism for this tariff group given customer feedback.

Table 12 – Comparison of recommended prices – Barker Barambah – River tariff group

Charge	Methodology	2025-26	2026-27	2027-28	2028-29
Part A (\$/ML)	Proposed (RAB)	\$42.12	\$45.89	\$49.85	\$53.98
	Annuity	\$42.12	\$45.89	\$49.85	\$53.98
	Difference	+\$0.00	+\$0.00	+\$0.00	+\$0.00
Part B (\$/ML)	Proposed (RAB)	\$4.68	\$4.81	\$4.94	\$5.08
	Annuity	\$4.68	\$4.81	\$4.94	\$5.08
	Difference	+\$0.00	+\$0.00	+\$0.00	+\$0.00

Table 13 – Comparison of recommended prices – Barker Barambah – Redgate Relift tariff group

Charge	Methodology	2025-26	2026-27	2027-28	2028-29
Part A (\$/ML)	Proposed (RAB)	\$42.12	\$45.89	\$49.85	\$53.98
	Annuity	\$42.12	\$45.89	\$49.85	\$53.98
	Difference	+\$0.00	+\$0.00	+\$0.00	+\$0.00
Part B (\$/ML)	Proposed (RAB)	\$25.33	\$26.03	\$26.75	\$27.50
	Annuity	\$25.33	\$26.03	\$26.75	\$27.50
	Difference	+\$0.00	+\$0.00	+\$0.00	+\$0.00

Appendix - Correspondence

Submission to Sunwater

RE Barker Barambah Bulk Water Supply Scheme - Rural Irrigation Price Review and Electricity Pass Through Charges

Parties



Background

1. The parties are allocation holders in the Redgate Relift Tariff Group (**the Holders**).
2. The Holders are beef and dairy cattle producers, hay makers, wine grape and olive producers.
3. Like all other allocation holders in the Barker Barambah water supply scheme they have been badly affected by BP dam water security issues.
4. The BP dam has an annual yield of 16,300 megalitres of medium priority allocation and another 16,433 megalitres supplied from Barambah Creek.
5. The allocation holders suffered dramatically in the following years when the average percentage available was as follows:
 - 2017 – 35%
 - 2018 – 21%
 - 2019 – 34% (but zero for the first half)
 - 2020 – 9%
 - 2021 – 50% (but zero for the first half)
6. During those years at various times (details of which are no doubt available at Sunwater and should be made available to the Holders) a fresh came down Barambah Creek from rain to the east but it did **not** impact the allocation deficiencies for reasons that are not evident to the Holders.
7. Notwithstanding section 9 of the Barker Barambah Operations Manual which refers to calculation of allocation percentages, it appears that the 16,433 megalitres are not taken into account.
8. This background is being provided because the Holders have suffered as a consequence of the unfair procedures adopted by Sunwater and that process is being continued with the proposals in relation to irrigation pricing and electricity pass through costs.
9. There has been mismanagement of the operations of the BP dam and the Holders should not be additionally punished by having their farming and grazing operations made unviable as a consequence of the pricing and electricity proposals.
10. With the increases in water and electricity charges since June 22 which have already impacted the Holders materially, it is becoming increasingly clear that farming and aquaculture operations conducted by the holders will become uneconomic with the proposed price increases.

Calculation of commercial charges by Sunwater

11. Commercial charges set by Sunwater are based on full recovery of operational, maintenance, administrative costs, return on capital, taxes etc. The Holders believe that the local Sunwater employees try very hard and are good to deal with. Unfortunately, it is plain to the Holders however that aspects of Sunwater are not operating efficiently and inadequate focus is made on cost reduction on a day to day business basis. Some examples include:
- repairs to the pump, the cost of which was excessive.
 - Bundaberg tradesmen are used in circumstances where it would be far more cost effective to use local tradesmen for installation and repair work

State Government

12. The State Government has final control over irrigation prices but takes into account recommendations by Sunwater.
13. What is absent in all of the material that has been published is an economic analysis of the current charges and the impact that the increases will have on the Holders and their businesses. That analysis must be undertaken so that Sunwater can give a balanced recommendation to the State Government.
14. The State Government will not wish to see viable agribusinesses cease as a consequence of these new charges. Unemployment is a significant problem in the South Burnett.

Electricity charges

15. It appears Sunwater has not properly considered the various means by which pumping costs could be materially reduced whether through financial assistances or grants from the State Government, Federal Government or otherwise. The review should include a proper investigation of:
- a) solar power;
 - b) increasing the height of the wall of the Rayham Francis Weir;
 - c) increasing the size of the pipe;
 - d) utilising flows of Barambah Creek;
 - e) weir upgrade.
16. If that work has been undertaken in relation to alternatives Sunwater has explored to reduce pumping costs (solar, water, reworking the delivery system etc) then that information should be shared with the Holders.
17. In addition the following information should be shared with the Holders:
- a) specific pumping costs past 10 years;
 - b) cost and volume of water pumped against water used by growers and charged from water meters;
 - c) details of recent pump replacement/upgrade, cost and revised output – the Holders are concerned that the delivery output has reduced and if that has occurred to determine what the cost is to the Holders.

Recommendation

18. Taking into account all the circumstances of an exceptionally difficult period from 2011 (with the floods) and intermittent flood and drought disasters in the period since, it would be entirely appropriate for Sunwater to make no change to charges for the next 3 years which will give the Holders the opportunity to properly plan and to enable Sunwater to explore other alternatives as outlined in paragraph 18.

Dated 18 August 2023



Contact: Keelie O'Sullivan

Direct line: [REDACTED]

11 October 2023

Dear allocation holders,

Thank you for your letter, received 23 August 2023, providing feedback on Sunwater's three key proposals as well as draft prices for the next Irrigation Price Path period. We welcome all customer feedback as we develop our final pricing proposal for lodgement with the Queensland Competition Authority (QCA) later this year.

In relation to increased costs and impacts on prices, we note you have raised concerns about how announced allocations (AAs) are calculated; the operational management of Bjelke-Petersen Dam; day-to-day cost cutting; Government's role in the price path process; and our efforts to manage increasing costs associated with electricity. This letter aims to respond to each of these points.

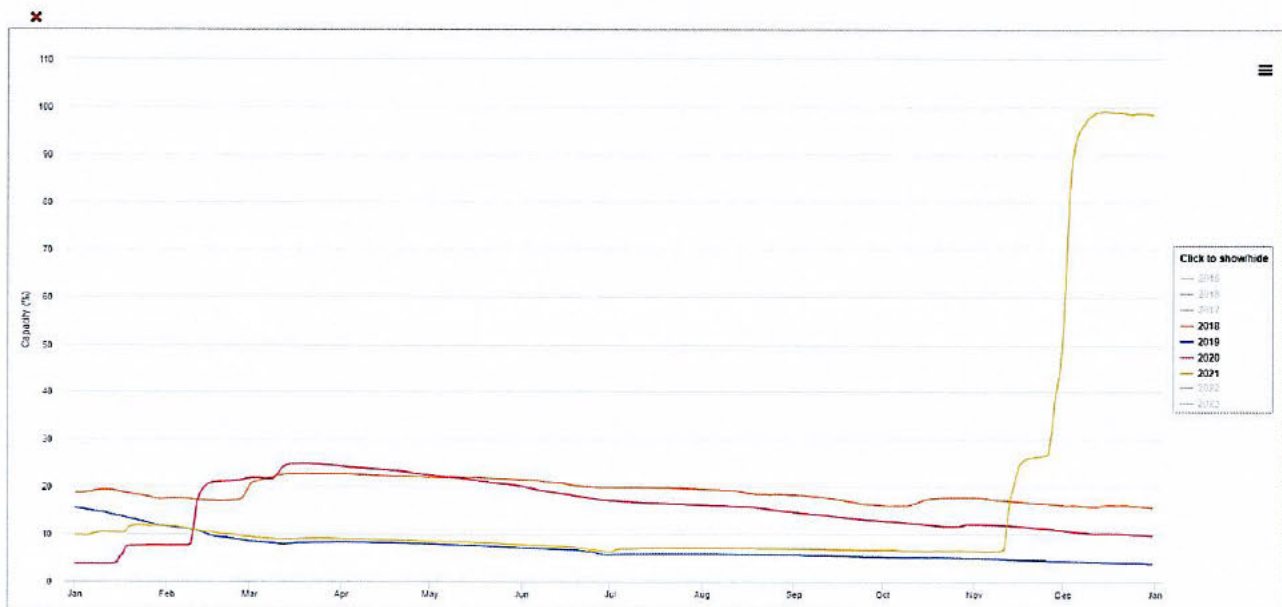
In regard to AAs, they are calculated in accordance with the Burnett Basin Water Plan and water sharing rules, any deviation from which would require an amendment to the Water Plan.

AAs are calculated considering several factors including time of year, the amount of water in storages, allowances for losses, future inflows, past water usage data, and water carried over from the previous year. Any inflow events captured in the Barker Barambah Water Supply Scheme storages can be seen in the historical storage summaries (see below graphs "Overlaid daily levels for previous calendar years").

Bjelke-Petersen Dam

Station Number: 136210A
Station Owner: Sunwater

Overlaid daily levels for previous calendar years



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Silverleaf Weir

Station Number: 136205A
Station Owner: SunWater

Overlaid daily levels for previous calendar years



The Burnett Basin water sharing rules requires Sunwater to reset the AA if a calculation indicates that AA would increase. The recalculation is required to be undertaken quarterly or after major inflow events.

Some examples:

- In mid-November 2021, a significant inflow resulted in the Medium Priority (MP) AA being lifted from 0% to 50%. It was again recalculated in Dec 2021 and the AA increased to 100%.
- In March 2018, an inflow resulted in the MP AA increasing from 32% to 55%.
- In February 2020, an inflow resulted in the MP AA increasing from 0% to 46%.

You can access this information via the following links:

[Operational Report: Announced Allocation Barker Barambah WSS \(sunwater.com.au\)](#)
[Barker Barambah AA History \(sunwater.com.au\)](#)

The formulas for calculating AAs are prescribed. The correct High Priority (HP) allocation and MP allocation (MPA) volumes (nominal volumes for HP and MP water allocations respectively) have been used in the calculation.

Refer to the table below, which includes the MPA from 24 June 2018. Relevant entries in the Current Volume column totals 32,079 ML, which is what has been used as the MPA since 2018.

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Table 1 MP water allocations (ML) – Barker Barambah Water Supply Scheme – nominal volumes as at COB 24 June 2018

Location	Minimum Volume (ML)		Current Volume (ML)	Maximum Volume (ML)		Projected Volume (ML)*
Barambah Zone HD	777		1,672	2,577		1,672
Barambah Zone HB	9,633		10,277	16,661	11,002	10,277
Barambah Zone HZ	4,953		5,714		6,659	5,714
Barambah Zone HC	6,147		7,102	15,321	8,662	7,102
Barambah Zone HZ	4,953		5,714		6,659	5,714
Barambah Zone HE	5,314	4,343	4,501	7,314	7,040	4,501
Barambah Zone JA		24	2,813		2,721	2,813

The source of this table can be found here: <\\sunwater.com.au\dfs\Managed Applications\BILL\Documents\Announced Allocations\AA Scheme Archive\AA 2018-2019 Review\AA 2018-2019 Start of Water Year\QA AA\Completed\Barker Barambah WSS QA AA Start 18-19.docx>

Your letter references instances where Barambah Creek flows have not resulted in increased AA. This is because these flows are not captured by any major Barker Barambah Water Supply Scheme (BBWSS) storages, so are unable to influence the AA calculation for the supplemented scheme. However, these events can meet flow thresholds and trigger “flood harvesting” events whereby allocation holders of un-supplemented volumes are permitted to access the water. These events are announced by the Department Regional Development Manufacturing and Water (DRDMW).

In your letter, you expressed the view that Sunwater mismanages the operation of Bjelke-Petersen Dam. Sunwater operates the assets within the BBWSS in accordance with the Burnett Basin Water Plan, our Resource Operations Licence (ROL) and its associated Operations Manual. For example, Sunwater releases water from Bjelke-Petersen Dam based on water orders received from customers. Factored into releases is a volume for operational losses for seepage and evaporation. Sunwater also reticulates water via the Upper Redgate pump into a natural watercourse with high operational losses due to evaporation, and seepage losses to the underground. Ultimately, Sunwater operates in a highly regulated environment and must comply with all legislative requirements.

At Sunwater, we aim to meet the needs of our customers by providing value for money, managing assets prudently, and keeping prices as low as possible. Your letter refers to two specific examples where you believe we have not met this aim.

We can confirm that Sunwater used several local contractors both for the initial installation/replacement of the old pumping unit in 2017 and on several occasions since for fault finding and repairs. This includes a recent engagement to replace the bearings in the pump unit. It is the case, however, that Sunwater’s Bundaberg workshop delivers most of our mechanical and electrical maintenance services across the entire region to ensure a consistent maintenance approach. Sunwater recognises benefits in utilising local contractors when appropriate; however, these contractors need to be able to satisfy our insurance and health and safety requirements, which is not always possible.

In response to your request for further information about the cost of the replacement pumping unit, a review of those costs was provided to the Irrigator Advisory Council in 2017 (see breakdown below). This

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pump is comparatively small in the scheme of Sunwater’s pump assets, and we maintain that the cost of the upgrade was aligned to the magnitude of the project at the time. In response to your query, the pump’s flow rate has not reduced; however the gain in flow rate experienced from the pump upgrade is constrained by the existing installed pipeline diameter.

Table 2 Pump replacement cost breakdown

Item	Cost
Pump Supply	\$12,871
New 300mm delivery pipe	\$1,953
Engineering drawings	\$1,550
New 12” foot valve	\$665
Motor Electrical Testing	\$410
Plant and Equipment hire	\$2,420
Internal Sunwater labour	\$3,593
Direct and Indirect Overheads	\$7,225
TOTAL	\$30,687

Your letter suggests that Sunwater should explore reducing pumping costs by investigating alternatives such as seeking financial assistance/grants and investigating solar and infrastructure solutions (e.g., pipeline or weir upgrades). I can advise that unfortunately, incentive schemes offered by the Federal and State Government are often not available to Sunwater as a Government Owned Corporation to utilise, targeting instead households and private businesses. We have found that alternate electricity generation opportunities have been limited to small business i.e., <20 FTEs, or not available to government organisations. We continue to monitor and assess opportunities as they arise.

In terms of addressing rising electricity costs, we actively monitor this cost segment and our electricity metrics to identify efficiency opportunities, and publish costs in annual Service and Performance Plans. For example, a review of electricity tariff selection occurs each year to ensure that Sunwater is using the most cost-effective tariffs. The analysis is based on actual historical electricity consumption and demand for several years, applying smart meter data as it provides more accuracy.

The annual variability in water demand within this scheme results in the pump station being periodically reclassified to either a small standard asset customer and large standard asset customer when rolling 12-month average consumption is above or below 100,000 kWh. This results in a change to an eligible regulated retail tariff aligned with the classification. Ergon and Sunwater can initiate this change and Sunwater actively monitors this information to optimise tariff selection.

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Table 3 Electricity usage and efficiency-related metrics for Upper Redgate pump station 1

Metric	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Electricity usage pump station (kWh)	210,730	121,678	243,559	21,176	195,620	421	566
Volume pumped (ML)	1,128	882	1,672	422	1,448	11	6
Water usage – Redgate Relift (ML)	874	454	633	197	232.7	49.9	348
Actual electricity cost pump station (\$ GST excl)	64,357	35,367	79,528	6,875	6,039	13,490	614
Actual electricity cost per ML (\$/ML pumped)	73.64	77.90	47.56	16.28	4.17	1,226	102.33
*QCA regulated retail tariff escalations	increase 12.3 – 13.2%	increase 6.1 – 7.4%	*decrease 2.6 – 3.5%	decrease 7 – 9.1%	*decrease 13.6%	decrease 2.5%	*increase 15.7%
Average pump energy indicator ² (kWh/ML/per metre of head)	4.96	5.68	6.62	5.32	5.15	1.53	4.18

- Upper Redgate pump station only
 - The industry guidelines are 3.4 to 4.5, depending on the size and design of the pump station with the benchmark for larger pump stations being more efficient
- To effectively monitor pump efficiency, a granular level of both energy and water data is required. With the installation of interval meters in early 2020 to capture energy consumption at a granular level, Sunwater is now able to more frequently monitor our performance against this metric.
- *Indicates a tariff change as per QCA published gazettes

Sunwater conducts an annual solar assessment across its pump stations and results have indicated it is not economically viable to progress at the Upper Redgate pump station currently due to the significant variability in water demand.

Below is the high-level economic analysis of solar opportunity at Upper Redgate Pump Station. Each year the site has been assessed against various tariff options resulting in a small or negative Net Present Value with minimal savings. The main contributors to this outcome have been:

- the site is subject to a demand tariff which is treated as a fixed cost
- most of the solar generation is exported (77%)
- when this site is on a large tariff (i.e., consuming greater than 100,000 kWh per annum) it is not eligible for a feed-in-tariff.

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Table 4 Solar Assessment results for Upper Redgate Pump Station

FY	Site	Size	Assessment Tariff	Solar PV Output (kWh pa)	Export %	Est Capital Cost	Payback	Average Annual Savings	IRR	NPV
2019/20	Upper Redgate	6.6kW	demand	9,154	77%	\$7,590	9.51	\$777	8.2%	\$437
2019/20	Upper Redgate	6.6kW	contestable	9,154	77%	\$7,590	10.87	\$683	6.5%	-\$474
2020/21	Upper Redgate	6.6kW	demand	9,154	77%	\$7,590	11.1	\$667	6.2%	-\$629
2020/21	Upper Redgate	6.6kW	seasonal demand	9,154	77%	\$7,590	10.6	\$699	6.8%	-\$322
*2021/22	Upper Redgate	6.6kW	TOU demand	9,154	77%	\$7,590	11	\$667	6.2%	-\$629
*2021/22	Upper Redgate	6.6kW	demand	9,154	77%	\$7,590	15.9	\$473	2.2%	-\$2,498

*2021 consumption data was applied to this assessment given there was minimal consumption for 2021/22.

An energy audit for the BBWSS is currently in progress and results will be shared with customers. The audit includes a review of electricity arrangements, operational and asset efficiency opportunities, and an alternate generation review. The audit will include the assessment of load shifting to daytime pumping to consume behind the meter to understand this opportunity.

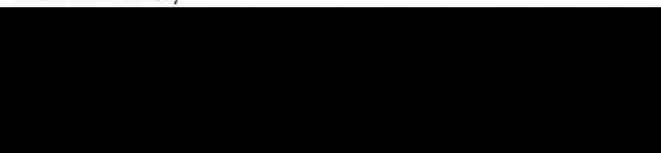
In response to the other options you have put forward for investigation, Sunwater understands the current crest of Francis Weir has suffered erosion due to rainfall events and this has reduced the capacity of storage volume. This constrains the operability of the Upper Redgate scheme and drives inefficiencies. Sunwater is aware that the weir is currently a privately owned asset and is open to a discussion on rectification works required at the weir site.

In addition, through the Bundaberg and Burnett Regional Water Assessment (BBRWA) Sunwater has been working closely with stakeholders to address future water demand to compile a comprehensive list of relevant investigations and potential projects. Further public consultation on the draft BBRWA is planned for the near future, including a drop-in session in Murgon and online forums. Visit the BBRWA project site: <https://sunwater.mysocialpinpoint.com.au/bbrwa> for more information.

Like other businesses, Sunwater has been impacted by conditions that have caused increasing costs and unfortunately, recommending that prices remain the same over the next three years is not an option in line with our cost recovery model. We acknowledge the challenging circumstances faced by landholders and will continue to review options that deliver cost savings.

Thank you once again for taking the time to provide your feedback. We hope to see you at the final customer engagement sessions at Murgon Services Club on Tuesday, 14th November at 12:30pm.

Yours sincerely



Cameron Milliner
EGM – Customer and Stakeholder Relations

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