Queensland Competition Authority

Rural irrigation price review 2025–29: Sunwater

Draft report

June 2024

Submissions

Closing date for submissions: 16 September 2024

Public involvement is an important element of our decision-making processes. Therefore, we invite submissions from interested parties. We will take account of all submissions received within the stated timeframes. Submissions, comments or inquiries regarding this paper should be directed to:

Queensland Competition Authority
GPO Box 2257, Brisbane Q 4001
Tel (07) 3222 0555
www.qca.org.au/submissions

Confidentiality

In the interests of transparency, and to promote informed consultation, we intend to make all submissions publicly available. However, if a person making a submission believes that information in it is confidential, they should claim confidentiality over the relevant information (and state the basis for that claim). We will assess confidentiality claims in accordance with the *Queensland Competition Authority Act 1997*. Among other things, we will assess if disclosure of the relevant information is likely to damage a person's commercial activities, and we will consider the public interest.

Claims for confidentiality should be clearly noted on the front page of a submission, and relevant sections of the submission marked as confidential. The submission should also be provided in both redacted and unredacted versions. In the redacted version, all information claimed as confidential should be removed or hidden. In the unredacted version, all information should be exposed and visible. These measures will make it easier for us to make the remainder of the document publicly available. A confidentiality claim template is available at **www.qca.org.au/submission-policy.**

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Executive summary

We have been directed by the Treasurer of Queensland to review the irrigation pricing practices of Seqwater and Sunwater, and to recommend irrigation prices to apply from 1 July 2025 to 30 June 2029. The government will consider our recommendations when it determines irrigation prices, but it is not bound to accept our recommendations.

This draft report explains how we reached our draft recommendations on Sunwater's irrigation pricing practices.[1] We appreciate the valuable contribution that stakeholders have made to our review so far. We welcome further feedback and comments on our draft report, which will assist us with the finalisation of our recommendations to the government.

Our draft recommendations are indicative and will be subject to further consideration before we provide our final report to the Treasurer.

Sunwater's customer engagement

Relative to the 2020 review, Sunwater's customer engagement has improved materially. We consider that Sunwater's engagement program has informed customers and other stakeholders of key aspects of the price review process. Sunwater has also provided stakeholders with multiple opportunities to participate and respond to its pricing proposal.

Sunwater's engagement on price-sensitive proposals has also aided our review process by identifying some of the key outcomes that customers were seeking in these proposals.

Our main areas of concern relate to the limited information that Sunwater provided to customers when engaging on cost inputs, and some aspects of its approach to seeking and addressing feedback on technical issues such as the regulatory asset base (RAB) and electricity cost pass-through (ECPT) proposals.

Our draft position is to reduce Sunwater's proposed costs

Our draft position is that total allowable costs[2] for Sunwater over the price path period should be set at $419.4 million, which is $66.3 million (or 13.6%) lower than the total (annuity based) allowable costs proposed by Sunwater in its November 2023 pricing proposal.[3] This reflects our draft position on key cost drivers:

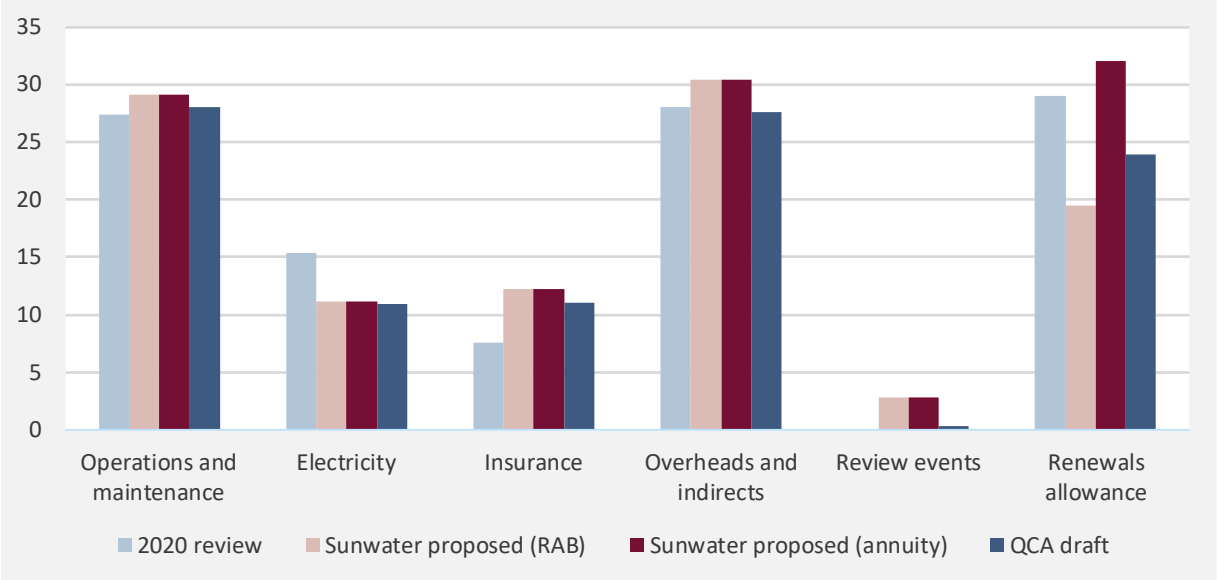
- our proposed operating expenditure (opex) allowance over the price path period of $327.7 million, which is $32.5 million (or 9.0%) lower than Sunwater's proposed opex[4]
- our proposed renewals allowance over the price path period of $99.3 million, which is $33.8 million (or 25.4%) lower than Sunwater's proposed allowance, reflecting:

[1] A separate draft report on Seqwater's irrigation pricing practices is available on our website.
[2] Includes costs allocated to irrigation and non-irrigation customers in regulated schemes.
[3] Sunwater, sub. 9, p. 127. For this comparison, we have used Sunwater's proposed total allowable costs under an annuity approach, consistent with the approach used to derive our draft costs. Sunwater's proposed total allowable costs under a RAB approach was $51.8 million lower than under an annuity approach (Sunwater, sub. 9, p. 126).
[4] This includes review event adjustments, which are $10.7 million lower due to us accounting for electricity cost over-recoveries not incorporated in the government electricity cost pass-through trial in selected schemes up to 2022–23.

- actual renewals expenditure over the period 2019–20 to 2024–25 of $156.3 million, which is $14.6 million (or 8.6%) lower than Sunwater's proposed actual renewals expenditure
- forecast renewals expenditure over the price path period of $116.9 million (down $30.1 million or 20.5% lower than Sunwater's proposed renewals over this period), with forecast renewals expenditure over the planning period from 2029–30 to 2057–58 of $808.9 million (down $233.6 million or 22.4%).

Figure 1 compares our draft position on key cost categories with Sunwater's proposal (under both RAB and annuity approaches) and our 2020 review allowance.

Figure 1: Average annual allowable costs, by cost category ($ million, 2025–26 dollars)



Notes: Our costs from the 2020 review are our recommended opex adjusted for the difference between forecast and actual inflation. The renewals allowance under Sunwater's RAB approach is equal to capital revenues and renewals opex, partially offset by a deduction for the return of positive annuity balance. These figures include costs allocated to irrigation and non-irrigation customers in regulated schemes.

Our review of opex found that Sunwater's proposed direct labour costs and local overheads were higher than the prudent and efficient level. We also found that Sunwater has the potential for ongoing efficiencies over the price path period and accepted Sunwater's proposed ongoing efficiency target.

Our review of renewals expenditure found that there is scope for Sunwater to make significant improvements in its long-term renewals planning. We also consider that Sunwater should review its expenditure classification approach for regulatory purposes to ensure an appropriate delineation of expenditure between opex and capital expenditure (capex) and to make improvements in its procurement processes.

We found that while Sunwater generally delivers renewals projects prudently and efficiently once properly scoped, inadequacies in asset planning and management, also raised in the 2020 review, such as a lack of understanding of the condition of assets, means that there is room for efficiencies from better project scoping and costing.

We have outlined a range of measures that Sunwater could implement to achieve efficiencies in the renewals program. We expect Sunwater to provide a workable and quantified plan for realising

potential efficiencies in the renewals program, in response to the draft report. In the absence of such a plan, we may apply an efficiency target to the renewals program in our final report.

We consider that Sunwater should improve its information reporting to strengthen the effectiveness of the ex post review process for historical renewals expenditure.

A RAB approach to recover renewals costs has merit, but further work is needed

While a regulatory asset base (RAB) approach has relative merits compared to the existing renewals annuity approach in terms of improved efficiency and transparency, we consider that Sunwater needs to do further work on its proposal before moving to a RAB approach.

Our assessment shows that most of Sunwater's renewals program would generally be considered as capex for regulatory purposes; however, Sunwater is proposing to apply its existing capitalisation policy for statutory accounting purposes, which expenses a large proportion of these costs. This policy results in large, irregular expenditure being recovered in the year it is incurred, as an opex step change, rather than over the multi-year period it provides benefits to customers, resulting in significant price target variability between price path periods.

As such, we have used the renewals annuity approach to calculate draft price targets and prices in this report. We have also published draft price targets and draft prices under Sunwater's proposed RAB approach in Appendices G and H.

We strongly encourage Sunwater to undertake further work in response to the issues raised in this draft report. This should include a comprehensive review of the opex and capex treatment of renewals that considers the treatment of large irregular costs that deliver benefits to customers over multiple years. We note that an appropriate capitalisation policy would involve capitalising a significant proportion of renewals and that this would require appropriate adjustments to address the resulting short-term transitional impacts on cash flows and price targets. We would expect Sunwater to consult with customers on these transitional issues, to ensure that its approach to managing the transitional impacts is informed by the outcomes sought by customers.

For each tariff group we set a draft price target and applied the pricing principles to reach our draft prices

Our approach to converting total allowable costs to our draft price targets for each tariff group is broadly consistent with the approach we applied in the 2020 review.

We assessed scheme-specific pricing issues raised by stakeholders, including:

- Burdekin-Haughton distribution system (Giru Groundwater Area tariff group) – our preliminary view is that there does not appear to be a basis for providing a differentiated price to the Giru Groundwater tariff group based on the current water planning and regulatory framework or based on differences in the cost of supply.
- Eton water supply scheme (risk priority A tariff group) – we have accepted Sunwater's proposal for a fully volumetric tariff for this new tariff group.

We reached our draft price recommendations by applying the government's pricing principles.[5] For each tariff group, we compared our draft price recommendations with the draft price target over the price path period. Overall, 12 of Sunwater's 43 tariff groups will have prices at the price target in the

[5] With the exception of the Eton risk priority tariff group.

first year of the price path period, with a further 10 tariff groups reaching the price target by the end of the price path period.

We propose to clarify the definitions and criteria for assessing review event applications

We propose to maintain the review event mechanism to address uncontrollable opex risk. We also propose to maintain the current list of review events, but to clarify the definitions and the criteria for assessing review event applications.

We understand that Sunwater is working with customer representative groups on an alternative proposal for an ECPT mechanism, given the lack of support for its original proposal. If Sunwater intends to propose an alternative ECPT mechanism, it should clearly explain how the mechanism is compatible with the government's pricing principles, demonstrate that the benefits of introducing the mechanism outweigh the costs, and ensure that stakeholders have been appropriately consulted.

Next steps

We will be holding workshops on our draft report in July and August 2024. Information about the workshops is available on our website.

After the workshops, stakeholders are invited to provide written submissions on our draft report by **16 September 2024**. We will consider all submissions received by the due date in preparing our final report, which is due to the government by 31 January 2025.

Box 1: Sunwater review – draft recommendations

Sunwater draft recommendation 1

We recommend that prices for irrigation customers for each water supply scheme and distribution system should be set according to the prices set out in Appendix F, Tables 80 and 81.

Sunwater draft recommendation 2

We recommend that:

- the current drainage price for the Burdekin-Haughton distribution system, updated annually, should apply
- the drainage diversion price for the Burdekin–Haughton distribution system should increase annually in line with our measure of inflation
- distribution system water harvesting charges should comprise any applicable government water harvesting charges, our recommended volumetric Part D price, and a Sunwater lease fee if relevant
- for termination fees:
  - termination fees should be calculated as up to 11 times (including GST) the relevant fixed price target
  - Sunwater should have the discretion to apply a lower multiple to the relevant fixed price target or waive the termination fee
  - Sunwater should never recover any revenue shortfall from remaining customers upon exit of the scheme by another customer.

Sunwater draft recommendation 3

We recommend the following mechanisms to manage Sunwater's uncontrollable cost risk over the price path period:

- a review event mechanism for opex risk that provides for an adjustment to allowable costs if:
  - any of the following events occur during the price path period:
    - an increase or decrease in electricity costs
    - an increase or decrease in insurance premiums
    - an increase or decrease in costs caused by a change in government policy or regulatory requirement
  - the following criteria are met:
    - the event results in a change in total costs that is sufficiently material that it could not reasonably be met by an efficient business operating within business-as-usual budget constraints, through prudent reprioritisation of expenditure
    - the costs of the event are prudent and efficient
    - an adjustment has been made to the costs of the event for any factors that offset those costs
- an end-of-period true-up for prudent and efficient renewals and other capex.

1 Overview

The prices that Seqwater and Sunwater charge for providing irrigation services are determined by the government. To inform its decisions, the government periodically directs us, the Queensland Competition Authority (QCA), to undertake a review of the businesses' irrigation pricing practices, and to recommend irrigation prices. In making its decision, the government considers our recommendations, but is not bound by them.

This review is being conducting under a referral notice (referral) issued by the Treasurer in March 2023.[6] We have been directed to recommend irrigation prices for the period 1 July 2025 to 30 June 2029 (the price path period).

This draft report explains how we reached our draft recommendations on Sunwater's irrigation pricing practices. A separate report covers our review of Seqwater's irrigation pricing practices.

1.1 Sunwater's services

Sunwater is a government-owned corporation and the main provider of bulk water and distribution services in regional and rural Queensland.[7] Sunwater's water storage and distribution infrastructure includes dams, weirs and barrages, pumping stations, and more than 2500 kilometres of pipelines and water channels.

Sunwater supplies more than 5,200 customers, including around 4,500 irrigation customers across 22 water supply schemes and 4 distribution systems. Of the bulk and distribution service revenue received from customers in 2022–23, 78% came from industrial customers (such as mines and power stations), 17% from irrigation customers and 5% from urban customers (mainly councils).[8]

1.2 What we have been directed to do

We are required to review the prices that Sunwater charges for providing irrigation services in each of the water supply schemes and distribution systems specified in the referral. Irrigation services are defined as the supply of water or drainage services for irrigation of crops or pastures for commercial gain.[9]

In accordance with the referral, we must recommend prices for the core irrigation service – the storage and delivery of water to irrigation customers – that are consistent with the government's pricing principles.[10] The pricing principles constrain the increases required each year to reach the relevant price target, which is a price for each irrigation tariff group that recovers 'allowable costs' allocated to that tariff group. Allowable costs reflect a scheme's prudent and efficient costs but

[6] The referral (available on our website) was issued under section 23 of the *Queensland Competition Authority Act 1997*.
[7] Seqwater provides bulk water and irrigation services in south-east Queensland.
[8] Sunwater, sub. 9, p. 8; Sunwater, *Annual report 2022-23*, September 2023, pp. 8, 58.
[9] Outside the scope of this review are prices for the water services that Burnett Water Pty Ltd provides in relation to Paradise Dam and Kirar Weir, and prices for non-irrigation services, such as the supply of water to local councils and industrial customers.
[10] There are a few exceptions to the requirement to apply the transitional element of the pricing principles (referral, para. B(1.1)(a)).

exclude allowances for capital expenditure (capex) incurred prior to 1 July 2000 to build the existing assets and capex on dam safety upgrades.

The government subsidises prices by providing a community service obligation (CSO) payment to Sunwater to make up the difference between the revenue received from irrigation customers and the irrigation share of allowable costs, and to cover the costs of the irrigation share of dam safety upgrade capex. As Sunwater does not earn a return on pre-2000 assets, this provides an additional subsidy to customers.

We are also required to recommend other prices (such as water harvesting prices) and to recommend appropriate price review triggers and other mechanisms to manage the risks associated with material changes in costs outside Sunwater's control.[11]

1.3 Our approach to the review

This is our third irrigation pricing review. The first reviews were completed in 2012 (for Sunwater) and 2013 (for Seqwater) and the second (combined) review was completed in January 2020.[12]

We advised Sunwater that we expected its pricing proposal to be informed by meaningful engagement with customers and other stakeholders. We assessed Sunwater's customer engagement against the engagement principles set out in our March 2023 guidelines for pricing proposals (Chapter 2).

We provide an overview of the steps we followed to reach our draft price recommendations (Chapter 3), followed by the detailed step-by-step assessment (Chapters 4 to 10). We consider the impacts of our draft price recommendations on irrigation customers and estimate the revenue shortfall for each tariff group with draft prices below the draft price target (Chapter 11). We also assess mechanisms to manage Sunwater's uncontrollable cost risk (Chapter 12).

In conducting our review we considered each of the matters we are required to consider in the referral and the *Queensland Competition Authority Act 1997* (QCA Act).[13] The matters we are required to consider are extensive, diverse and potentially conflicting – for example, the need for efficient resource allocation; the protection of consumers from abuses of monopoly power; social welfare and equity considerations; balancing the interests of the water businesses and their customers; and economic and regional development issues. We explain how we have considered each of these matters in Appendix I.

Regulatory tools are limited in their ability to achieve multiple and potentially conflicting goals or objectives. In using our judgement to weigh up and take the various matters into account, we have placed greater weight on economic efficiency, because promoting efficient outcomes is consistent with the overall public interest and maximising benefits to society. Prices that reflect prudent and efficient costs signal the efficient cost of providing water services to customers, promote efficient consumption and investment decisions, and protect consumers from the use of monopoly power.

[11] Referral, para. B(1.1)(a)-(b).
[12] See Appendix A for a summary of our price recommendations from the 2020 review and the government's decision about prices to apply in the current period – 1 July 2020 to 30 June 2025.
[13] In accordance with sections 24(1)(b) and 26 of the QCA Act.

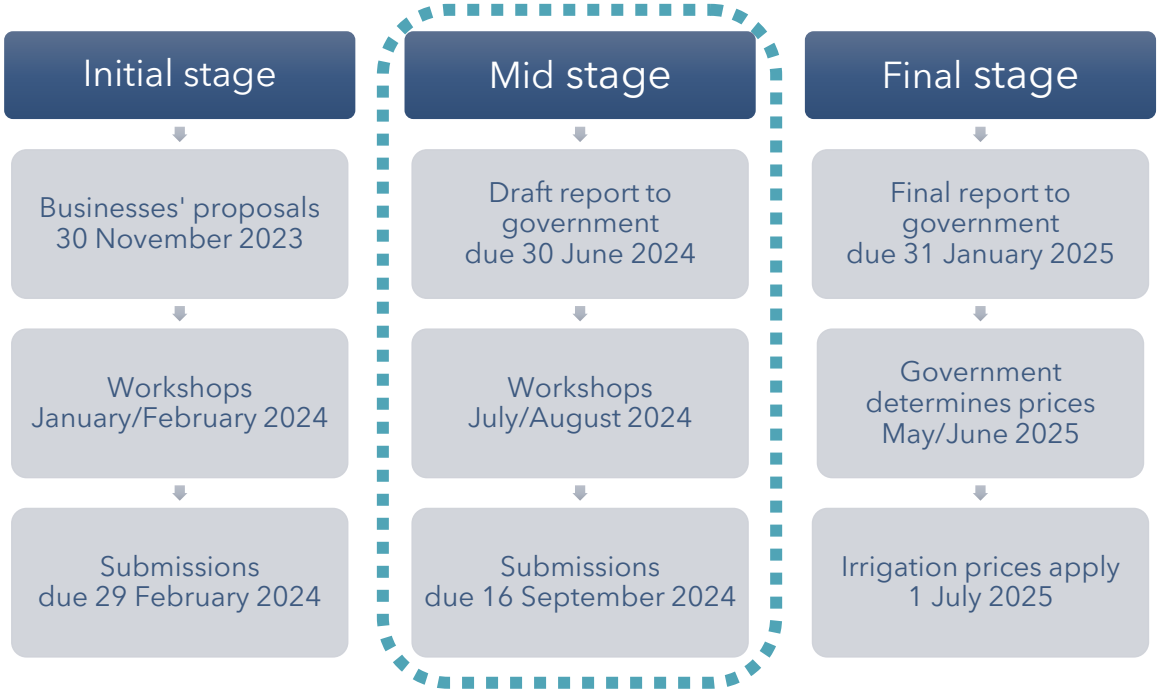
1.4 Consultation process and timetable

Our review formally began when the businesses submitted their pricing proposals at the end of November 2023.

We held stakeholder workshops in January and February 2024.[14] Workshops were held in locations with sufficient interest from stakeholders.[15] The purpose of the workshops was to understand the issues of importance to stakeholders, and to provide information to facilitate submissions. The workshops also provided an opportunity for stakeholders to share their views and ask questions.

Initial submissions were invited by 29 February 2024. We have carefully considered all submissions received by the due date in preparing this draft report.[16]

Figure 2: Review timetable



Draft report consultation

Consultation on the draft report will begin with workshops in July and August 2024. Information about the workshops is available on our website. As with our initial round of workshops, we will not document workshop discussions as formal submissions, but we will publish a summary of the issues raised and expect the discussions will inform our ongoing assessment and final recommendations.

After the workshops, stakeholders are invited to provide written submissions on our draft report by **16 September 2024**. Further information about how to make a submission is provided at the start of this report.

Submissions do not necessarily need to be detailed or comprehensive—brief comments on specific issues are also welcome. We also welcome collaboration between stakeholders to provide joint

[14] We also held one online meeting at the request of representatives from Mallawa Irrigation.
[15] See Appendix B for a list of the workshop locations and the number of attendees at each location.
[16] See Appendix B for a list of submissions received.

submissions on an issue. Wherever possible, stakeholders should provide evidence to support their statements.

Keeping up to date with our review

To keep up to date with our review, stakeholders should regularly check our website or subscribe to receive email alerts. Further information can be requested by using the contact form on our website or by phoning 07 3222 0555.

2 Customer engagement

The pricing proposal guidelines we published in March 2023 outline our expectations for the water businesses in terms of engaging with their customers and other stakeholders during the development of pricing proposals. In this chapter, we assess Sunwater's customer engagement based on the engagement principles in these guidelines.[17]

We consider that Sunwater's engagement aligned with these principles in several ways. For example, Sunwater:

- sought to understand the views of customers by using a range of approaches including its Consultative Committee and scheme level forums, informational materials, and surveys (section 2.1.1)
- engaged on issues that could reasonably influence services and prices, including deliverables and service levels; actual and proposed cost inputs; proposed price targets and prices; and changes to pricing methodology such as the renewals cost recovery approach (section 2.1.2)
- engaged on an ongoing basis since the 2020 review and early in this review process as soon as practicable after the Treasurer issued the referral in March 2023 (section 2.1.3)
- developed its proposal with some consideration of feedback from customers (section 2.1.4).

A key objective of our pricing proposal guidelines was better customer engagement. Relative to the 2020 review, Sunwater's engagement has improved materially. However, we think further improvements are possible. Our main areas of concern relate to the information Sunwater provided to customers when engaging on cost inputs in the development of its pricing proposal, and some aspects of Sunwater's approach to seeking and addressing feedback on technical issues.

2.1 Assessment of Sunwater's engagement

2.1.1 Structure engagement to promote an understanding of customer needs

Overall, our preliminary view is that Sunwater has undertaken an engagement program that was generally appropriate for its customers and operating environment.

Sunwater has expanded on its engagement approach since the 2020 review to facilitate broader engagement in response to our recommendations from the 2020 review.[18] Sunwater implemented a range of measures including introducing customer advisory committees (CACs) in six regulated schemes; and implementing working groups to address specific issues.

Prior to the 2020 review, the key engagement channel was through irrigator advisory committees (IACs) in each regulated scheme[19], with Sunwater meeting with each IAC at least annually to discuss issues including expenditure planning and performance monitoring. However, while the CAC mechanism is a more robust approach for the larger schemes where it has been implemented, for

[17] QCA, *Rural irrigation price review 2025–29*, guidelines for pricing principles, March 2023, p. 11.
[18] See QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 171.
[19] At the time of the 2020 review, IACs existed in 18 of the 22 regulated schemes.

some of the smaller schemes it appears that regular engagement with an IAC has diminished.[20] It is not clear how Sunwater will maintain its understanding of customer needs over the course of the next price path period in schemes without a CAC or IAC.[21]

Sunwater's engagement on its pricing proposal for this review has built on its established engagement channels with monthly Consultative Committee meetings; a three-stage program of scheme forums; a dedicated project webpage; scheme-level and proposal-specific factsheets; and an online voting platform. Sunwater said that it provided multiple opportunities and channels for irrigation customers to engage with Sunwater as the pricing proposal was developed.[22]

We consider that Sunwater effectively used its Consultative Committee to facilitate its interaction and engagement of the broader customer base, including by providing feedback on the three-stage engagement process and by some testing and refining of draft proposals. Representative group stakeholders involved in Sunwater's Consultative Committee were also generally complimentary of Sunwater for its improved engagement process compared to the 2020 review.[23]

Sunwater has generally tailored its engagement methods to align with the nature of the information being communicated. For example, Sunwater has used a range of methods to communicate information on complex and technical topics such as the calculation approach for irrigation prices under both the RAB and existing annuity approach, evidenced by its presentations, fact sheets and the online invoice calculator that compares customer's prices under these approaches.[24]

We have concerns, however, with Sunwater's approach to using a voting platform to justify customer support for moving to a RAB approach. While it is good practice to ensure that voting customers are informed prior to voting, the focus of the informational video that voting customers were required to watch was about the online invoice calculator, which only shows bill impacts over the upcoming price path period (which were not necessarily representative of subsequent periods). We also note that Sunwater's interpretation of the results of customer voting on this issue contrasts with stakeholder submissions, which generally opposed moving to a RAB approach. Many stakeholders also expressed concerns with Sunwater's voting process on this issue.[25]

2.1.2 Target engagement on matters that customers value and can influence

Sunwater said that its engagement program was designed to focus on deliverables and service levels; actual and proposed cost inputs; and price targets and proposed prices.[26] In addition, Sunwater said that it proposed three changes to the regulatory framework that allowed for significant customer influence, namely, changes to its performance reporting; changes to the way renewals expenditure was recovered; and an electricity cost pass-through mechanism (ECPT mechanism).

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[20] Sunwater said that while it is planning to replace IACs with CACs in a further 5 schemes, there are no longer active IACs in the remaining 11 out of 22 regulated schemes (Sunwater, response to RFI 130).
[21] For example, D and S Sippel (sub. 60) said that Sunwater had not facilitated meetings for the IAC in Barker Barambah.
[22] Sunwater, sub. 11, p. 9.
[23] Bundaberg Regional Irrigators Group (BRIG), sub. 41, p. 1; Canegrowers, sub. 43, p. 1; Cotton Australia, sub. 48, p. 1; QFF, sub. 59, p. 6.
[24] All presentations, factsheets and the irrigation customer invoice calculator were available on a project-specific page on Sunwater's website (*Irrigation Price Path*, accessed 15 April 2024).
[25] BRIG, sub. 41, p. 3; BRIA Irrigators, sub. 41, p. 11; Central Highlands Cotton Growers and Irrigators Association (CHCHIA), sub. 47, p. 2; Wilmar Sugar Australia, sub. 62, p. 2.
[26] Sunwater, sub. 11, p. 10.

We have some concerns regarding Sunwater's approach to engaging on cost inputs for its pricing proposal. In the context of irrigation water pricing, we consider it important to provide customers with sufficient detail on actual and proposed costs to allow scrutiny of costs to help ensure cost proposals are prudent and efficient. However, there was a lack of detailed cost information in Sunwater's presentations in the second stage of its engagement, including:

- limited explanation of key drivers of the differences between actual and recommended costs
- no detail on key renewals projects and programs in each scheme over the price path period
- no explanation of any efficiency savings or measures taken by Sunwater to find cost savings.

Some stakeholders at the scheme level were concerned that the limited detail Sunwater provided on costs made it difficult to provide meaningful feedback.[27] We note that Sunwater said that it responded to feedback in the second stage of its engagement that customers wanted additional detailed cost information by providing more granular views of its cost forecasts in the third stage of its engagement.[28] However, there was limited time for feedback in this final stage to reasonably address any feedback before the pricing proposal was due to us.[29]

We also have some concerns with aspects of Sunwater's engagement on proposals for a RAB approach and an ECPT mechanism. While it is important to inform customers on how these mechanisms recover costs in prices, we consider that consultation on these issues should focus on the outcomes that customers value and how the proposed mechanisms impact on these outcomes. We consider that Sunwater should be able to justify how its proposal meets these outcomes or, where relevant, why its proposal was not revised to address some of the outcomes sought (and how Sunwater responded to customers on these issues).

In addition, Sunwater's presentations over its three-stage engagement process did not appear to cover topics such as distribution losses and miscellaneous fees and charges (e.g. termination fees). Our guidelines noted that the business should describe and justify how it had consulted with customers on developing its proposed strategy for distribution losses.

2.1.3 Ensure ongoing engagement within timeframes necessary to inform decision-making

Sunwater has maintained ongoing engagement since the 2020 review and promptly initiated engagement for its pricing proposal following the issuance of the referral in March 2023.

Since the 2012 review, Sunwater has produced annual network service plans (now known as service and performance plans) showing the performance of costs at the detailed activity by cost-type level in comparison with our recommended costs. While these reports show a greater detail than the cost inputs presented as part of Sunwater's engagement for this pricing proposal, it is not clear how these reports are integrated into Sunwater's ongoing engagement moving forward.

We recognise that while the referral, and therefore information on government policy positions and timing, for this price review was issued earlier than the 2020 review, the remaining time of less than 9 months for customer engagement on the pricing proposal was less than is the practice in other

[27] Central Downs Irrigators, sub. 46, p. 2; CHCHIA, sub. 47, p. 2; Cotton Australia, sub. 48, pp. 2, 5; Eton Irrigation Cooperative Ltd (EICL), sub. 49, pp. 2, 10–11; Fairbairn Irrigation Network, sub. 50, p. 4; Mallawa Irrigation, sub. 55, pp. 1–2; Nogoa-Mackenzie IAC, sub. 57, p. 1.
[28] Sunwater, sub. 11, p. 23.
[29] Sunwater's third stage of engagement commenced with its first workshop on 20 October 2023 up to the final workshop on 24 November 2023 (Burdekin-Haughton WSS), before Sunwater lodged its pricing proposal on 30 November 2023.

jurisdictions.[30] We agree with Sunwater's view that improved confidence and certainty as to the government policy positions and timing of future irrigation pricing reviews would help to deepen engagement around pricing related matters.[31]

None of the organisations represented on the Consultative Committee endorsed the RAB or ECPT mechanism proposals.[32] Several issues were raised by stakeholders on this committee, which Sunwater could have addressed more fulsomely if given sufficient time. We also note that stakeholders expressed concern about the limited timeframe for customer consultation regarding the proposed transition to a RAB approach.[33]

2.1.4 Ensure engagement informs planning and decision-making

Sunwater demonstrated that its ongoing engagement had identified key customer values and priorities, which it then used to plan its engagement program for its pricing proposal.

Sunwater's actions in response to feedback from stakeholder groups and customers provide some evidence that its engagement influenced its pricing proposal. For instance, Sunwater:

- developed its three-stage engagement program by testing its thinking with its Consultative Committee
- organised an independent review of its renewals expenditure for prudency and efficiency, in response to customers' concerns about costs in the first and second stage of engagement.[34]

However, we have concerns regarding Sunwater's failure to explain how it has attempted to address feedback in instances where it has been unable to incorporate this feedback. For example, stakeholders raised concerns about various issues related to moving to a RAB, including transparency, potential additional tax costs, price variability and the suitability of a RAB approach for Sunwater's rural water assets.[35] Moreover, it remains unclear how Sunwater effectively incorporated feedback from stakeholders on its Consultative Committee into the design of its ECPT proposal, particularly given the ultimate lack of support of Sunwater's proposed design.

Although Sunwater said that it would continue engaging with customers to understand and address their concerns regarding both issues,[36] we expect that Sunwater should address these issues and explore options before lodging its pricing proposal to us.

2.2 Implications for our broader assessment

Overall, we consider that Sunwater's extensive engagement program has informed customers and other stakeholders of key aspects of the price review process. Sunwater has also provided stakeholders with opportunities to participate and respond to its pricing proposal.

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[30] The general practice in other jurisdictions is to commence engagement on the development of pricing proposals approximately a year before the submission.
[31] Sunwater, response to RFI 130.
[32] Canegrowers, sub. 43, pp. 2–3; QFF, sub. 59, p. 5; Cotton Australia, sub. 48, p. 4.
[33] BRIA Irrigators, sub. 42, p. 12; CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 4.
[34] Sunwater, sub. 11, pp. 9, 22.
[35] BRIG, sub. 41, pp. 2–3; BRIA Irrigators, sub. 42, pp. 11¬–12; Canegrowers, sub. 43, pp. 2–3; Central Downs Irrigators, sub. 46, pp. 1–2; CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 4; QFF, sub. 59, p. 5; Theodore Water, sub. 61, p. 1; Wilmar Sugar Australia, sub. 62, pp. 1–2.
[36] Sunwater, sub. 9, pp. 51, 53.

As outlined in section 2.1.2, we have some concerns regarding Sunwater's approach to engaging on cost inputs for its pricing proposal. In our review of the prudency and efficiency of Sunwater's renewals expenditure, we have considered the independent review of renewals expenditure that Sunwater arranged in response to customers' concerns in the initial two stages of the engagement.

Sunwater's engagement on price-sensitive proposals has also aided our review process by identifying some of the key outcomes that customers were seeking in these proposals. However, as noted above, the constrained time of the engagement process for Sunwater's pricing proposal has meant that the issues stakeholders raised have not always been addressed, and several further issues not identified by Sunwater have been raised in submissions we received from stakeholders.[37]

[37] For example, in relation to the RAB proposal, concerns were raised regarding price variability, additional tax costs and transparency around long-term planning.

3 Approach to setting draft prices

We are required to recommend prices in accordance with the requirements in the referral.[38] For the core irrigation service, the key requirement is that we are to recommend prices for each tariff group that transition towards a price target that would recover allowable costs, in accordance with the government's pricing principles.[39]

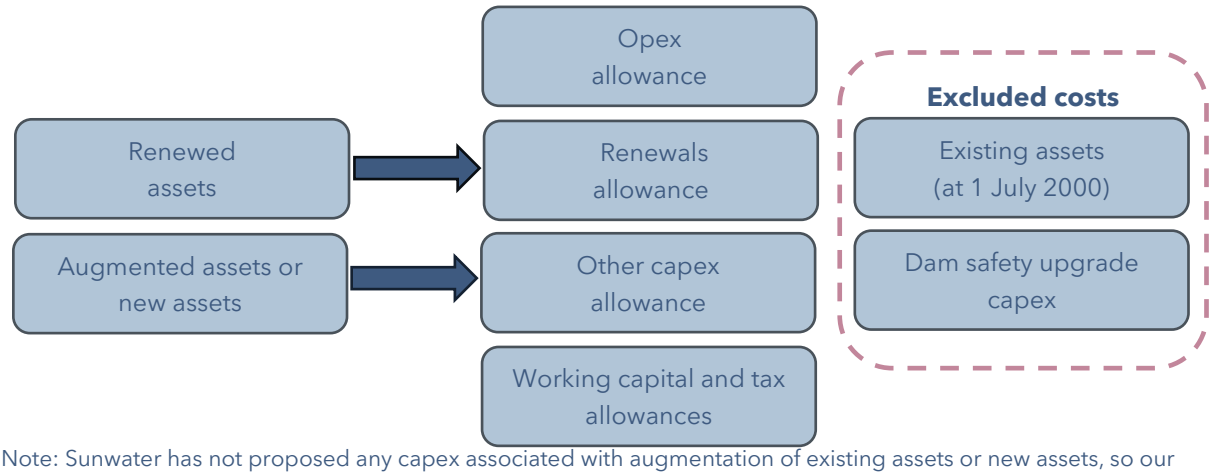
Our draft price recommendations were informed by our assessment of Sunwater's pricing proposal and stakeholder submissions. We followed these steps to calculate prices:

1. Determine the prudency and efficiency of costs – to ensure that prices reflect the efficient costs of service levels that are necessary to meet regulatory obligations[40] and service levels agreed with customers.[41]
2. Establish the price target for each irrigation tariff group – by allocating costs between schemes, tariff components, customer priority groups and tariff groups.
3. Derive irrigation prices that transition towards the price target, in accordance with the government's pricing principles.[42]

3.1 Determining the prudency and efficiency of costs (Chapters 4 to 7)

We assessed the prudency and efficiency of the costs of supplying customers (irrigation, urban and industrial) in the specified schemes. The costs we assessed are those allowable under the referral. Excluded from allowable costs are allowances for capital expenditure (capex) incurred before 1 July 2000 to build the existing assets and capex on dam safety upgrades (Figure 3).

Figure 3: Allowable costs under the referral



Note: Sunwater has not proposed any capex associated with augmentation of existing assets or new assets, so our review has not required an assessment of the other capex allowance component.

[38] Section 24(1)(d) of the QCA Act.
[39] There are a few exceptions to the requirement to apply the transitional element of the pricing principles (referral, para. B(1.1)(a)).
[40] Including regulatory and legislative obligations, such as those relating to water planning and dam safety, imposed by government and other regulatory bodies.
[41] Including customer service standards.
[42] We separately calculate prices for the services provided by Sunwater that are ancillary to the core irrigation service. These services are only provided in some schemes.

We used the building block approach to determine prudent and efficient allowances for each component of allowable costs:

- an operating expenditure (opex) allowance – the ongoing costs of running the business and maintaining assets, including operations, maintenance and administration costs[43]
- a renewals expenditure allowance – an appropriate allowance for the prudent and efficient costs of renewing existing assets, reflecting our assessment of prudent and efficient renewals expenditure, the opening annuity balance and an appropriate rate of return
- tax – consistent with our post-tax nominal approach to the weighted average cost of capital (WACC), we include an allowance for tax as part of total costs.[44]

To determine total allowable costs, we add the components together and then deduct the revenue Sunwater earns from other sources.

3.2 Setting a price target for each tariff group (Chapters 8 and 9)

The next step is to convert Sunwater's total allowable costs to a price target for each tariff group.

To derive allowable costs at the scheme level, we first make adjustments between schemes to ensure that costs are allocated to the appropriate beneficiaries. We then convert allowable costs at the scheme level to a price target for each tariff group by:

- allocating costs between fixed and volumetric tariff components
- allocating costs between priority groups
- allocating costs between tariff groups (where applicable)
- converting allocated costs into a unit cost for each tariff component, using forecast volumes.

In accordance with the referral, we then determine the price target for each tariff group by smoothing the unit costs over the price path period so that the price target increases annually by forecast inflation.[45]

3.3 Transitioning irrigation prices to the price target (Chapter 10)

The last step to reach our draft price recommendations is to apply the government's pricing principles to establish the transitional path to the price target for each tariff group.[46] If customers reach the price target during the price path period, their prices reflect the price target for the rest of the period.[47]

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[43] We also make an adjustment to the opex allowance for the cost of review events that occurred in the current price path period.
[44] Sunwater did not propose a working capital allowance for this review (Sunwater, sub. 9, p. 47). In the 2020 review, we did not provide Sunwater with a working capital allowance, as it receives a significant portion of revenue from customers in advance, rather than in arrears (QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 91).
[45] Referral, Sch. 2, para. A.
[46] Unless the tariff group is an exception to the requirement to apply the transitional element of the pricing principles (referral, para. B(1.1)(a)).
[47] Referral, Sch. 2, para. A.

4 Operating expenditure

This chapter sets out our draft position on the prudent and efficient level of operating expenditure (opex) for regulated schemes over the price path period. This includes all opex for these regulated schemes, including costs allocated to irrigation and non-irrigation customers.

Sunwater submitted a base-step-trend approach for its forecast opex. We assessed Sunwater's opex and found:

- the prudent and efficient level of baseline opex should be set at $281.2 million (section 4.2), with corresponding step changes of $3.9 million over the price path period (section 4.3)
- Sunwater has potential for ongoing efficiencies over the price path period, and its proposed ongoing opex efficiency target of 0.5% per annum is appropriate (section 4.4)
- review event adjustments are appropriate for material changes in insurance and electricity costs over the current price path period (section 4.5).

Overall, our draft position is to set the prudent and efficient level of opex over the price path period at $327.7 million (Table 1).

Table 1: QCA draft position for Sunwater's opex ($ million, nominal)

	QCA draft						
	2025-26	2026-27	2027-28	2028-29	Total	Sunwater proposal	Difference
Baseline opex excl. electricity	67.3	69.4	71.1	72.9	**280.7**	295.4	**(14.7)**
Electricity	11.1	11.3	11.6	11.9	**46.0**	46.9	**(0.9)**
Step changes	0.9	1.0	1.0	1.0	**3.9**	10.4	**(6.4)**
Continuing efficiency	(0.4)	(0.8)	(1.2)	(1.6)	**(4.0)**	(4.2)	**0.2**
Total forecast	**79.0**	**80.9**	**82.5**	**84.2**	**326.6**	**348.4**	**(21.8)**
Review event adjustments	0.3	0.3	0.3	0.3	**1.1**	11.8	**(10.7)**
Total allowance	**79.3**	**81.2**	**82.8**	**84.5**	**327.7**	**360.3**	**(32.5)**

Notes: Includes opex allocated to irrigation and non-irrigation customers in regulated schemes. Includes QCA fees in step changes. Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA analysis.

We consider that our proposed total opex reflects a reasonable overall allowance for Sunwater to manage its assets, prioritise expenditures and deliver bulk and distribution services. Our proposed opex does not represent the amounts that Sunwater should allocate to specific operational, maintenance and administrative activities. Rather, it provides flexibility for Sunwater to redirect cost savings to new initiatives or to mitigate unexpected cost increases.

4.1 Our assessment approach

In assessing the prudency and efficiency of opex from 1 July 2025 to 30 June 2029, we focused on areas that are material, specifically examining the proposed base year, step changes and escalation.

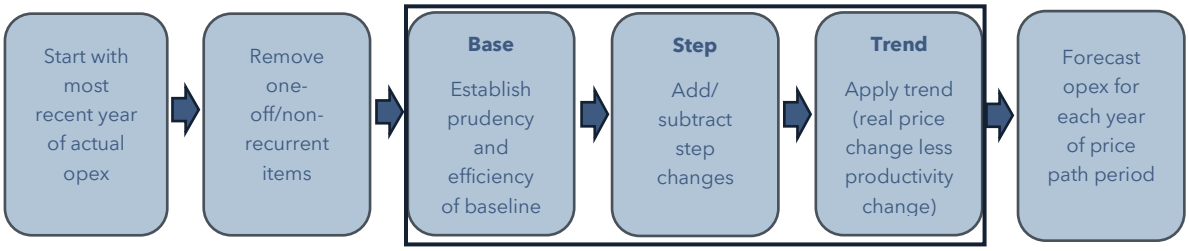
Base-step-trend approach

Our approach to assessing Sunwater's proposed opex over the price path period involved:

- determining an appropriate baseline level of prudent and efficient recurrent expenditure
- reviewing material step changes in the efficient baseline opex over the price path period
- ensuring appropriate adjustments for trend growth, including input price inflation and productivity growth over the price path period.

Our overall approach is illustrated in Figure 4.

Figure 4: The base-step-trend approach



We engaged AtkinsRéalis to assist us in this assessment. AtkinsRéalis's review was informed by extensive information requests issued to Sunwater, as well as in-person interviews with key Sunwater staff. We have had regard to AtkinsRéalis's analysis and recommendations in developing prudent and efficient opex estimates.

We generally consider that the opex allowance should be set at a broad level, allowing Sunwater to manage its assets, meet its regulatory obligations, prioritise expenditures and deliver bulk and distribution services within an aggregate, business-wide allowance. This provides flexibility for the business to redirect cost savings to new initiatives or to mitigate unexpected cost increases.

Baseline opex

We prefer to use actual (revealed) opex based on the most recently available data to establish baseline opex.

In establishing an appropriate baseline, we first considered whether Sunwater had made appropriate adjustments for one-off or non-recurrent items in the base year, such as:

- removing any non-recurrent expenditure
- including recurrent expenditure not incurred in the base year but expected over the course of the price path period
- accounting for any cost savings or efficiencies expected to eventuate by the start of the price path period that are not incorporated in base year expenditure.

A key step in our assessment of the prudency and efficiency of baseline opex (excluding electricity) was comparing this with our recommended expenditure from the 2020 review. Given that Sunwater's baseline opex (excluding electricity) is higher than our recommended allowance from the 2020 review, we assessed the reasons provided by Sunwater. Where Sunwater has not provided

sufficient justification, we have determined an appropriate baseline opex amount using available information. We also assessed the appropriateness of the allocation of the business-wide allowance to the scheme level.

We separately reviewed Sunwater's bottom-up forecasts of estimated electricity costs for distribution systems and bulk water supply schemes that require pumping to supplement stream flows. We consider a bottom-up forecast to be appropriate given significant levels of year-to-year variability in electricity costs, with a key driver being volume of water pumped.

Step changes

We consider that proposed step changes should be material enough that the costs could not reasonably be met by an efficient entity operating within business-as-usual budget constraints, through prudent prioritisation of expenditures, or be otherwise mitigated.

In assessing proposed step changes, we considered whether they satisfy at least one of these requirements:

- The change is necessary to fulfil new (or changed) binding statutory or regulatory obligations and constitutes a reasonable estimate of the efficient incremental costs of fulfilling the new (or changed) binding statutory or regulatory obligation.
- The change is reasonably required to achieve an outcome that is explicitly endorsed by customers or broadly accepted changes in community expectations in relation to corporate responsibility.
- The change represents cyclical activities that are not within annual business-as-usual budgets.

We also ensured that proposed step changes were not already included in other components of the opex allowance.

Trend growth

We assessed Sunwater's proposed adjustments for trend growth over the price path period, including expected input price inflation (Chapter 6) and productivity improvements.

Prudency and efficiency

We generally consider opex is prudent if it is necessary to:

- operate or maintain the relevant service
- meet legal or regulatory obligations[48]
- achieve an outcome that is explicitly endorsed or desired by customers (for example, agreed service levels)
- achieve broadly accepted changes in community expectations in relation to corporate responsibility (such as commitments to climate change mitigation).

We consider that opex is efficient if it represents the least-cost means, over the life of the associated assets, of providing the required level of service within the regulatory framework.

[48] Including those specified in a water management protocol, resource operation plan, resource operation licence or interim resource operations licence.

Materiality

We formed a view on prudency and efficiency based on the overall proposal before us. We would not generally adjust opex forecasts where:

- the adjustment is not an identified error and is small and/or has only a small impact on the price target at the tariff group level
- the adjustment largely reflects a difference of opinion, rather than an identified error or invalid reasoning
- the proposal represents a genuine attempt at estimating efficient costs, and the water business has been forthcoming with supporting justification and information
- there is evidence of proper consultation and agreement with customers.

4.2 Baseline opex

Our draft position is to set Sunwater's baseline opex at $70.7 million (Table 2). We have made adjustments to Sunwater's most recent (2022–23) actuals to remove non-recurrent costs and include recurrent costs not incurred in the 2022–23 baseline year (section 4.2.1) and to exclude increases since our 2020 review that have not been justified by Sunwater (section 4.2.2).

Table 2: QCA draft position – baseline opex ($ million, 2022–23)

	2022–23 actuals	Non-recurrent adjustments	Efficiency adjustments	QCA draft
Labour	12.7	(0.6)	(0.6)	11.5
Contractors	5.4	(1.0)	-	4.4
Materials	2.6	0.1	-	2.7
Other	8.2	(1.0)	-	7.2
Insurance	9.0	–	-	9.0
Total direct[a]	**37.9**	**(2.5)**	**(0.6)**	**34.8**
Total overhead and indirect costs	**26.5**	**0.8**	**(2.0)**	**25.4[b]**
Baseline opex excl. electricity[a]	**64.4**	**(1.7)**	**(2.6)**	**60.2**
Electricity	9.3	1.2	-	10.5
Total baseline opex[a]	**73.7**	**(0.5)**	**(2.6)**	**70.7**

a Totals may not add due to rounding. b Includes incremental costs of the new billing system, which were proposed by Sunwater to be recovered as a step change and through the renewals allowance.
Source: Sunwater, sub. 9; QCA analysis.

4.2.1 Establishing baseline opex (excluding electricity costs)

Sunwater proposed to use actual opex for 2022–23 as the basis for determining baseline opex, because 2022–23 was the most recent year with actual expenditure. Sunwater's actual 2022–23 opex (excluding electricity costs) was $64.4 million.

Sunwater said it reviewed and adjusted actual opex for 2022–23 to reflect prudent and efficient expenditure for a typical operating year.[49] We consider adjusted actual opex is a good a starting point to establishing baseline opex, if appropriate adjustments are made to remove non-recurrent costs and include costs that are recurrent in nature but were not incurred in the baseline year.

Table 3 shows Sunwater's proposed adjustments to actual opex (excluding electricity) in the 2022–23 base year to exclude non-recurrent costs that it incurred in the base year and include recurrent costs expected during the price path (but not incurred in the base year). Our proposed adjustments to establish a recurrent baseline are also outlined in Table 3.

Table 3: Adjustments to 2022–23 baseline year for non-recurrent costs and recurrent costs not incurred in baseline year ($ million, 2022–23)

	Sunwater proposed	Our adjustments	Comment
2022–23 actuals	**64.4**	**64.4**	
Labour	(0.2)	(0.6)	Mainly to account for atypical expenditure across multiple direct operations and maintenance cost categories. See Table 4 for detailed comments.
Contractors	(0.9)	(1.0)	
Materials	0.1	0.1	
Other operations and maintenance	(1.0)	(1.0)	
Insurance	–	–	There were no non-recurrent costs in this the 2022-23 base year and no new recurrent costs are expected beyond the base year.
Overhead and indirect costs	–	0.8	Regulated schemes' share of annual depreciation charge for the existing billing system Orion, which was included in our recommended opex allowance but ceased in 2021–22.
Total adjustments	**(2.1)**	**(1.7)**	
Adjusted baseline	**62.3**	**62.7**	

Note: Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA analysis.

We have assessed the appropriateness of Sunwater's proposed adjustments to each of the cost categories in operations and maintenance expenditure in Table 4. In addition, we have made an adjustment of $0.8 million to indirect costs, to reflect the annual depreciation charge for Sunwater's existing billing system Orion, since this annual cost was included in our recommended opex but was not in the 2022–23 base year as this system had fully depreciated before this year.

[49] Sunwater, sub. 9, p. 60.

Table 4: Adjustments to 2022–23 baseline year for non-recurrent costs and recurrent costs not incurred in this year ($ million, nominal)

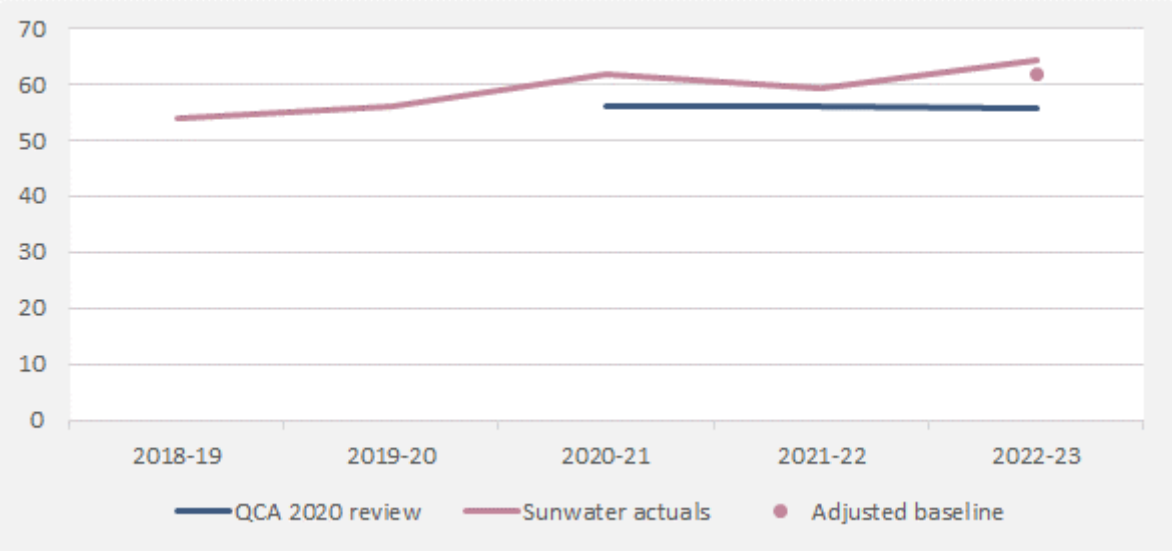
Category	Sunwater proposed	Nature of adjustment	QCA assessment	QCA draft
Direct labour	(0.2)	Sunwater said that this adjustment comprises: • downward revisions to areas where labour was well above historical averages • an uplift of 4.5% to the base rate, in line with the backdated increase for 2022-23 in its enterprise agreement (EA). The adjustment was applied to all schemes and derived by converting pre-2022-23 labour costs to 2022–23 dollars, taking the 5-year average (with labour costs for 2022–23 exclusive of the backdated EA increase), then applying the backdated EA increase to the 5-year average.	It is unclear why a nominal uplift should be applied to the real historical average, given that the 2022–23 base year is the only year impacted by the backdated increase. We have removed the nominal uplift from the 5-year average and only applied it to the 2022–23 base year. This results in a reduction of $0.6 million, which we adjust further as part of our prudency and efficiency assessment in section 4.2.2.	(0.6)
Contractors	(0.9)	Sunwater said that it applied this adjustment in selected schemes to normalise for atypical use of non-chemical weed control (due to favourable non-aquatic weed growing conditions) and for contractor costs materially different to historical averages. The adjustment was derived to replace 2022–23 actuals with the 5-year real historical average in selected schemes.	It is unclear how schemes were selected for replacing actuals with a 5-year real historical average. We consider a 5-year real historical average across all schemes would more closely reflect costs under typical conditions.	(1.0)
Materials	0.1	Sunwater said this adjustment normalises for atypical use of key materials (including acrolein) in selected schemes. In most cases the adjustment replaces actuals with the 5-year real historical average.	Applying a 5-year real historical average appears reasonable noting that it continues to be below our 2020 inflation-adjusted recommendation.	0.1
Other direct	(1.0)	Sunwater adopted a 5-year real historical average for rental and equipment hire in selected schemes, as there had been a one-off effort to bring drain channels and access road areas up to standard in 2022-23. This resulted in a $0.6 million reduction. It also removed $0.3 million in legal fees related to a one-off settlement and made miscellaneous reductions amounting to $0.1 million.	We consider a 5-year real historical average across all schemes better aligns with a typical spend at the scheme level. We also applied the additional adjustment for legal fees. We found no clear justification for the miscellaneous reductions.	(1.0)
Total	**(2.1)**			**(2.5)**

Note: Sunwater's Enterprise Agreement 2022-2025 (EA) sets out a 4.5% rise effective from 1 July 2022; however, this was not approved until September 2023.
Source: Sunwater, sub. 9, p. 63; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 125–127. Sunwater, response to RFIs 28 and 62; QCA analysis.

4.2.2 Prudency and efficiency of baseline opex (excluding electricity)

Given that the adjusted baseline opex (excluding electricity) is higher than our recommended opex allowance from the 2020 review, we have assessed the reasons provided by Sunwater to understand the outcomes.

Figure 5: Total opex[a] – actuals[b] relative to QCA allowance[c] ($ million, 2022–23 dollars)



a Excludes electricity costs. b The 2022–23 estimate of Sunwater's opex incorporates Sunwater's proposed adjustments for non-recurrent costs. c Our recommended costs from the 2020 review relate to our recommended opex for 2020–21 to 2022–23 adjusted for the difference between our forecast of inflation and actual inflation. Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, supporting information accompanying sub. 9.

Our recommended opex in the 2020 review reflected different baselines for different cost categories:

- We derived a 2018–19 baseline (incorporating a 5-year real historical average of actual operations and maintenance expenditure with some adjustments for new costs from 2018–19).
- We used forecast 2019–20 costs for insurance and overhead and indirect costs (given forecast changes in this year).[50]

Therefore, to understand the drivers of adjusted baseline opex being higher than our recommended opex allowance, we have assessed the reasons for the increases in Sunwater's actual costs from 2018–19 (for operations and maintenance) and 2019–20 (for insurance and overhead and indirect costs), to 2022–23.

The adjusted baseline opex (excluding electricity) is $6.6 million higher than our previously approved allowance. Table 5 shows the key cost categories driving this variance.

[50] For insurance, we used Sunwater's actual 2018–19 insurance costs for our baseline, and then escalated this in 2019–20 by the actual cost increase in this year. For overhead and indirect costs, we accepted most of Sunwater's forecast increases to the actual 2017–18 overhead and indirect cost base for 2018–19 and 2019–20. See QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, pp. 27, 34–41.

Table 5: Comparison of adjusted baseline with the 2020 review for selected cost categories ($ million, 2022–23 dollars)

Category	Adjusted baseline	2020 review	Difference
Operations and maintenance	**26.4**	**23.5**	**2.8**
Direct labour	12.1	11.2	0.9
Contractors	4.4	3.7	0.7
Materials	2.7	3.2	(0.5)
Other (incl. local government rates)	7.2	5.4	1.8
Insurance	**9.0**	**8.2**	**0.8**
Overhead and indirect costs	**27.3**	**24.3**	**3.0**
Total	**62.7**	**56.0**	**6.6**

Note: Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020.

Stakeholders expressed concerns regarding Sunwater's proposed baseline opex.[51] Specifically, Central Highlands Cotton Growers and Irrigators Association (CHCGIA), Nogoa-Mackenzie Irrigator Advisory Committee (IAC) and BRIA Irrigators emphasised that increased costs due to inflated prices from the covid-19 pandemic should not serve as the basis for future pricing.[52]

Operations and maintenance

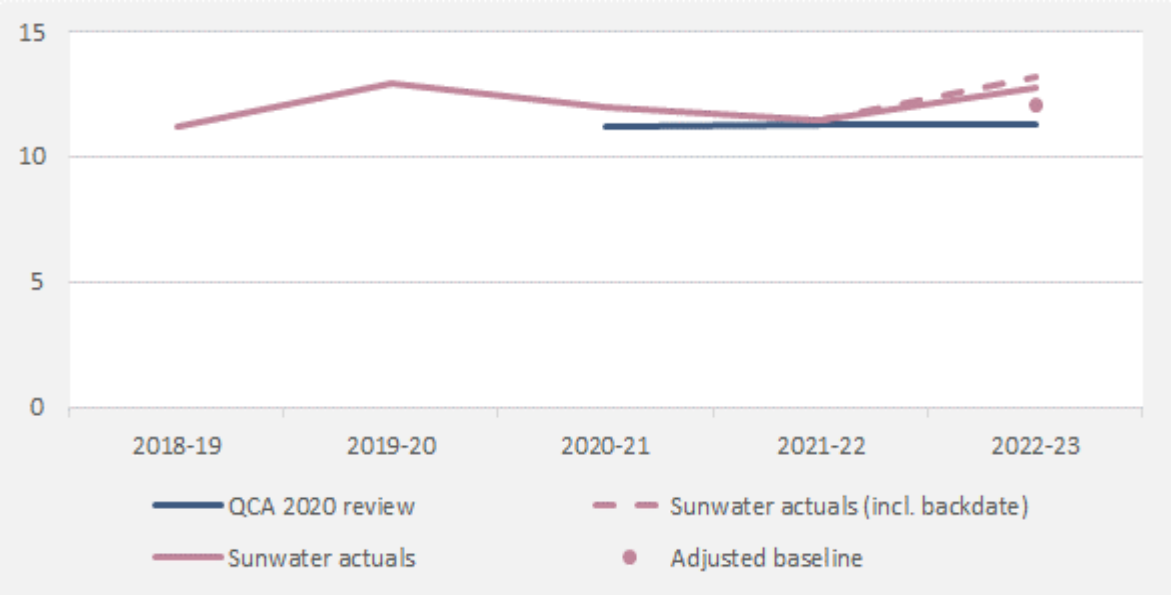
The key drivers for the adjusted baseline for operations being $2.8 million higher than our recommended allowance are direct labour ($0.9 million) and other direct operational expenditure ($1.8 million).

Direct labour costs

Sunwater's direct labour costs increased significantly in real terms in 2019–20 (up 15.0%) before dropping back to our recommended level in 2021–22, followed by another significant increase in 2022–23 (Figure 6). The adjusted baseline is $0.9 million (7.6%) higher than our recommended allowance.

[51] Cotton Australia, sub. 48, p. 2; Lower Burdekin Water, sub. 54, p. 6; Wilmar Sugar Australia, sub. 62, p.1.
[52] CHCGIA, sub. 47, p. 1; Nogoa-Mackenzie IAC, sub. 57, p. 1; BRIA Irrigators, sub. 42, p. 11.

Figure 6: Actual direct labour costs[a] relative to QCA allowance[b] ($ million, 2022–23 dollars)



a The 2022–23 estimate of Sunwater's expenditure on direct labour incorporates Sunwater's proposed adjustments for non-recurrent costs. b Our costs from the 2020 review are our recommended opex for 2020–21 to 2022–23 adjusted for the difference between forecast and actual inflation.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, supporting information accompanying sub. 9.

There has been a significant increase in full-time equivalent (FTE) employees in operations and maintenance (O&M) since the 2020 review (Table 6).[53]

Table 6: FTEs in operations and maintenance roles

	2018-19	2019-20	2020-21	2021-22	2022-23
Sunwater's 2019 projection	204	197	197	197	197
Actual	211	210	204	228	242

Note: The projected reduction in staff numbers was due to the transition of distribution systems to local management arrangements.
Source: Sunwater, sub. 9, p. 75; AECOM, *Rural Irrigation Operational Expenditure Review: Sunwater*, January 2020, p. 49.

The drop in FTEs between 2018–19 and 2020–21 partly reflects the transitioning of the St George, Theodore and Eton distribution systems to local management arrangements over this period. However, from 2020–21 to 2022–23, there was a net increase of 38 FTEs, or 19% on a like-for-like basis. These additional FTEs cover a wide range of roles, including graduates, apprentices, project managers, planning managers, trade staff and planners and coordinators.

Sunwater said the increase was required to address a range of issues including work safety concerns (among other things, Sunwater revised its rostering arrangements to mitigate excessive leave balances and overtime accrual, fatigue-related safety risks and some attrition due to workload), emerging regulatory and customer service expectations and an ageing workforce.[54]

With respect to safety issues, we note that increasing staff numbers to mitigate overtime accrual and attrition due to workload should not necessarily result in a net increase in labour costs, given

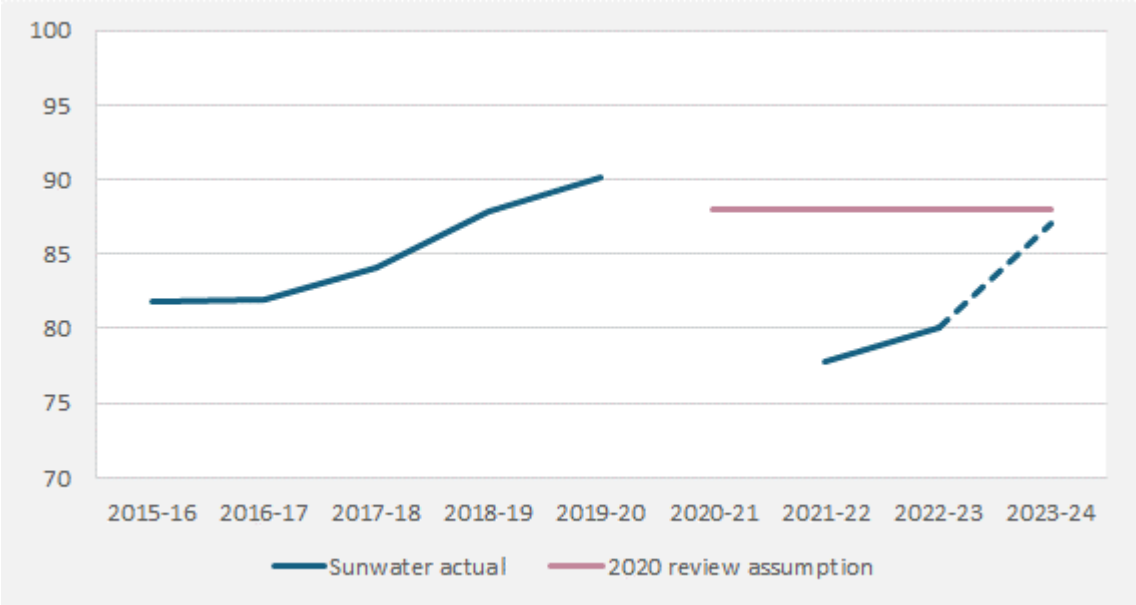
[53] Sunwater, sub. 9, p, 75.
[54] Sunwater, sub. 9, pp. 73–74.

offsetting reductions in overtime accrual and the staff lost to attrition. However, taking AtkinsRéalis's advice into account, we accept that Sunwater's safety responsibilities and focus have materially evolved since 2020 and that this represents an exogenous driver. We estimate the increase since the 2020 review at $0.3 million.[55]

Regarding the ageing of the workforce, we note that less than 25% of the O&M workforce is over 55, consistent with what would be expected if the workforce was evenly distributed by age and suggestive of a business-as-usual staff turnover challenge.[56]

We note that the increase in the O&M workforce has been accompanied by a significant decline in utilisation rates[57] (Figure 7). Sunwater attributed the low utilisation rates in 2020–21 and 2021–22 to the covid-19 pandemic. However, while this may have contributed, it does not explain the continued lower rates in 2022–23. We note that Sunwater is forecasting utilisation rates to return to target levels from 2023–24. However, as there is no anticipated growth in regulated services, this may indicate that some of the 2022–23 increase in direct labour costs is relevant for the anticipated growth in activity in non-regulated service contracts.

Figure 7: Historical utilisation rates (%)



Notes: In the 2020 review, our forecast direct labour costs and overhead and indirect costs were based on an assumed 88% utilisation rate, noting that we considered that a utilisation target of 90% would be comparable to best practice.
Source: Sunwater, sub. 9, p. 76; QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, pp. 10–14.

In addition to hiring more FTEs, Sunwater attributed the increase in labour costs to the following:

- a change in the mix of labour force – the number of hours charged to schemes at higher rates has risen from 2018 to 2023. Sunwater explained that the higher rates are driven by an increased level of seniority and skill aligned with Sunwater's strategic direction to build

[55] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 139.
[56] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 138–139.
[57] Sunwater uses a utilisation rate to measure the proportion of time booked by O&M employees to direct charging activities. An optimal utilisation rate indicates that employees are effectively utilising their time, focusing on billable tasks, and avoiding non-productive activities.

business resilience and succession planning requiring additional supervisory and training hours with more senior resources[58]

- wage increase – a 4.5% uplift from an enterprise agreement (EA) coming into force from 1 July 2022 and again on 1 July 2023.[59]

We consider that the recent enterprise agreement does not justify a net increase in real term direct labour costs, given that it also commits Sunwater staff to achieving a productivity offset equal to half of the increase, and consumer price index (CPI) since 2021–22 has been significant.[60] Further, while the number of hours charged to schemes at a higher rate may have risen due to the changing mix of the labour force, average hourly rates are likely to be lower given that FTEs have increased by about 19% while direct labour costs have increased by around 8%. This is also in line with Sunwater's submission that succession planning has led to the recruitment of more junior roles.

In summary, we consider Sunwater has not provided sufficient justification as to why the adjusted baseline is higher than our previously allowed efficient level. While it is conceivable that Sunwater has had to increase direct labour at the business-wide level, Sunwater has not justified why there should be an increase in direct labour for regulated schemes.

For these reasons, we consider that the level of direct labour opex in the 2020 review adjusted for the justified increase in safety obligations is an appropriate baseline (Table 7). We note that our 2020 review allowance has been adjusted for the significant increase in inflation over the price path period thereby maintaining real wages over this period.

Table 7: QCA draft position – direct labour opex ($ million, 2022–23 dollars)

	$ million, 2022–23 dollars
Adjusted baseline	**12.1**
Adjustment for efficiency	(0.6)
QCA draft position	**11.5**
2020 review[a]	11.2

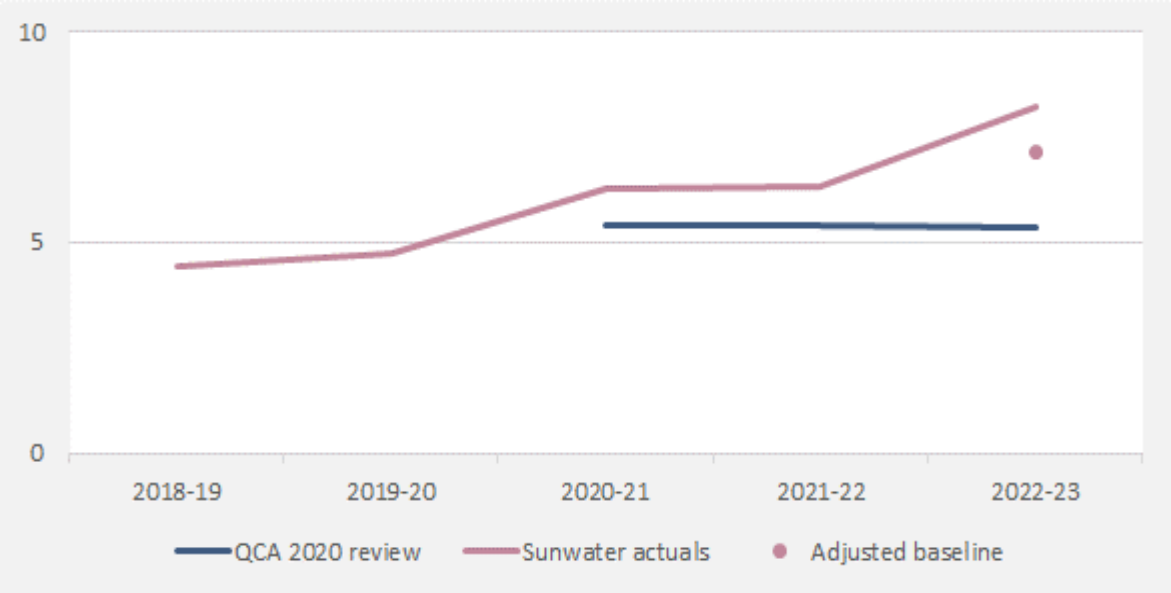
a Our recommended costs from the 2020 review relate to our recommended opex for 2022–23 adjusted for the difference between our forecast of inflation and actual inflation from 2018–19 to 2022–23.
Source: Sunwater, sub. 9; QCA analysis.

Other direct operations and maintenance expenditure

The adjusted baseline for other direct operations and maintenance is $1.8 million (33.0%) higher than our 2020 review recommended allowance (Figure 8).

[58] Sunwater, sub. 9, pp. 74-–77.
[59] Sunwater, sub. 9, pp. 63–64.
[60] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 142.

Figure 8: Actual other direct O&M[a] relative to our allowance[b] ($ million, 2022–23 dollars)



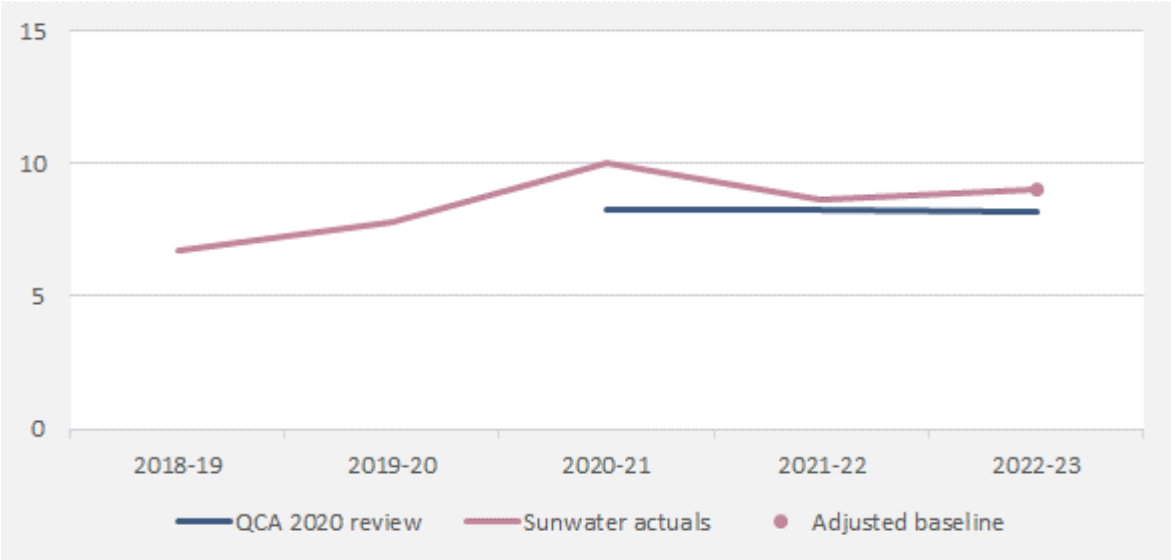
a The 2022–23 estimate of Sunwater's expenditure on other direct O&M incorporates Sunwater's proposed adjustments for non-recurrent costs. b Our recommended costs from the 2020 review relate to our recommended opex for 2020–21 to 2022–23 adjusted for the difference between our forecast of inflation and actual inflation.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, supporting information accompanying sub. 9.

We consider the increase in other direct costs to be prudent and efficient, as the increase is largely the result of increases in local government authority rates, which Sunwater has no control over.

Insurance

Figure 9 compares Sunwater's actual expenditure on insurance from the previous price path period with our approved allowance from the 2020 review.

Figure 9: Actual insurance costs relative to QCA allowance[a] ($ million, 2022–23 dollars)



a Our recommended costs from the 2020 review relate to our recommended opex for 2020–21 to 2022–23 adjusted for the difference between our forecast of inflation and actual inflation.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, supporting information accompanying sub. 9.

Several stakeholders were generally concerned about the increase in Sunwater's insurance costs over the previous price path period, as well as the proposed increase in 2024–25 throughout the next price path period. Stakeholders particularly questioned the options Sunwater has explored for insurance, including the option of self-insurance.[61]

Sunwater's insurance premiums have risen significantly since the 2020 review. This has resulted in premiums rising more than the allowance we recommended in the 2020 review. Sunwater said it had effectively managed insurance costs by implementing insurance premium cost controls, including regular engagement with brokers and insurers to ensure they understand the context within which Sunwater operates.[62]

We consider that Sunwater has demonstrated that it has effectively managed insurance costs over the price path period through:

- using a professional insurance broker to access the global market and provide advice on the appropriate level of insurance
- active engagement with insurers to ensure they have good knowledge of the risk profile of its assets and services
- regular reviews of insurance policy specifications (including deductibles) and potential options for self-insurance
- a full revaluation of its assets in 2021 resulting in a reduction in asset values from $13.5 billion to $11.7 billion and a flow-on reduction in insurance premiums of approximately $0.8 million
- increasing the deductibles on liability insurance in 2019–20 from less than $0.1 million to a little under $0.3 million and reducing cover from $0.9 billion to $0.8 billion
- self-insuring for cyber risk on the basis that it is better to invest in controls.[63]

AtkinsRéalis considered that there may be potential to reduce premiums further by increasing deductibles. It noted that Sunwater's professional insurance broker had advised in a May 2023 report on industrial special risk (ISR) policies that increasing the deductible to $20 million could result in a saving of between 5 and 10%.[64]

However, we note that the potential pass-through of a $20 million deductible, if recovered through the annuity, would result in an additional $1.2 million in annual scheme costs over the next 30 years. Given that total annual scheme-level costs range from less than $1 million per year up to $20 million per year, an additional $1.2 million per year in cost would be excessive in some schemes. We have therefore not proposed any changes to Sunwater's current level of deductibles.

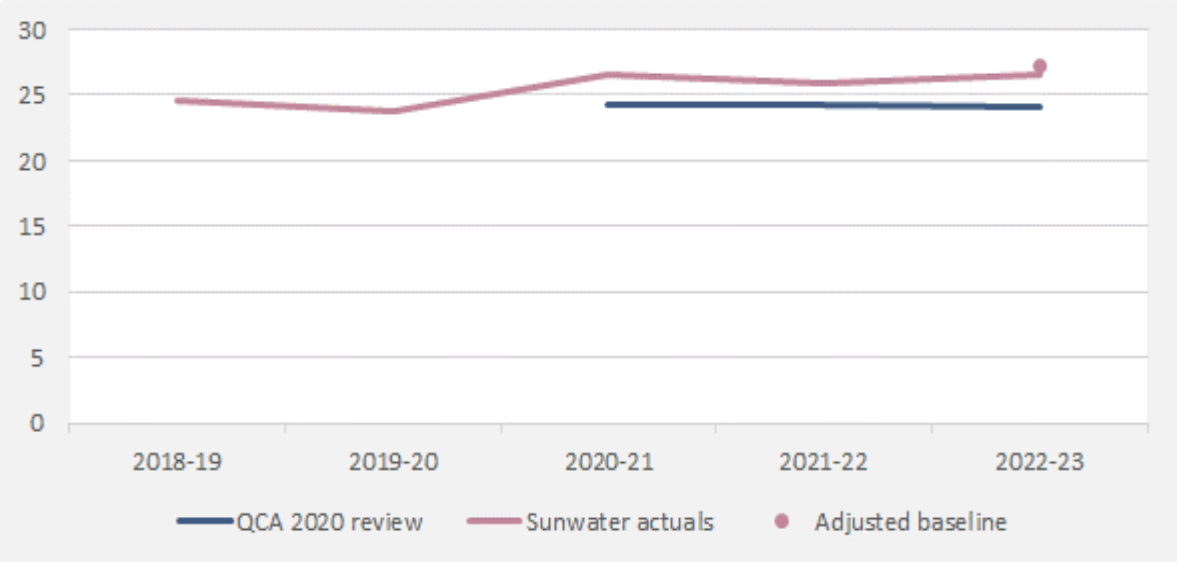
Overall, we consider that Sunwater has taken appropriate steps to manage costs and mitigate the increases in costs in the insurance market. Therefore, we find Sunwater's baseline insurance costs to be prudent and efficient.

[61] CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 6; Fairbairn Irrigation Network, sub. 50, p. 5; Nogoa-Mackenzie IAC, sub. 57, p. 1; Queensland Farmers' Federation (QFF), sub. 59, p. 3; BRIA Irrigators, sub. 42, p. 14.
[62] Sunwater, sub. 9, p. 69.
[63] Sunwater, sub. 9, p. 68–71; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 162–163.
[64] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 164–165.

Overhead and indirect costs

The adjusted baseline for overhead and indirect costs is $3.0 million (12.5%) higher than our 2020 review recommended allowance (Figure 10).[65]

Figure 10: Actual overhead and indirect costs[a] relative to QCA allowance[b] ($ million, 2022–23 dollars)



a Our recommended costs from the 2020 review relate to our recommended opex for 2020–21 to 2022–23 adjusted for the difference between our forecast of inflation and actual inflation.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, supporting information accompanying sub. 9.

Further, Sunwater's total overhead and indirect costs have increased significantly since the 2020 review, driven mainly by corporate overheads and, to a lesser extent, local overheads (Figure 10).

Several stakeholders raised concerns about the magnitude of Sunwater's overhead and indirect costs.[66]

Cost allocation approach

We have reviewed Sunwater's cost allocation approach, as it determines the proportion of overhead and indirect costs that is allocated to regulated schemes.

Sunwater's overheads are split between corporate overheads (which represent central office functions that are provided across the organisation) and local area or regional overheads (which are functions provided in specific geographical areas).

In addition to overheads, Sunwater incurs indirect costs which are costs that cannot be charged directly to individual schemes as they are common to groups of schemes. For example, dam safety management services may be shared across bulk water supply schemes but are not relevant to distribution systems.

Sunwater's approach to allocating overhead and indirect costs is summarised in Figure 11.

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[65] As mentioned in section 4.2.1, we adjusted the baseline to account for the costs associated with the existing billing system as these were included in our baseline opex in the 2020 review but were not included in 2021–22 and 2022–23 actuals, due to being fully depreciated.

[66] Bundaberg Regional Irrigators Group (BRIG), sub. 41; Central Downs Irrigators, sub. 46; CHCGIA, sub. 47; Cotton Australia, sub. 48; Eton Irrigation Cooperative Ltd (EICL), sub. 49; Fairbairn Irrigation Network, sub. 50; Lower Burdekin Water, sub. 54; Mallawa Irrigation, sub. 55; Nogoa-Mackenzie IAC, sub. 57.

Figure 11: Sunwater's cost allocation approach for the overhead and indirect cost base

Cost type	Corporate overheads	Local overheads	Indirect costs
Costs to be allocated	Costs of services that are provided organisation-wide – e.g. corporate finance.	Costs remaining in local resource centres after direct and indirect allocations – e.g. regional office costs.	Costs that relate to a common service provision for a particular group of service contracts – e.g. dam safety management
Allocation approach	Allocated across all service contracts and major projects in proportion to the share of overall direct labour costs	Allocated across relevant service contracts serviced by a local resource centre in proportion to the share of direct labour costs provided by that resource centre	Allocated across relevant service contracts in a cost pool either in proportion to the share of direct labour costs for service contracts that benefit from the cost pool or using a risk-based approach

Note: In addition to opex, the direct labour cost component of renewals and other capex also attracts a share of overhead and indirect costs. We assess Sunwater's approach to estimating the direct labour cost share of its renewals program in Chapter 5.
Source: PF001 Sunwater cost allocation methodology; QCA analysis.

For the purposes of this review, Sunwater has proposed a change to the cost allocation methodology outlined in Figure 11. Specifically, Sunwater has proposed that the capital and operating costs associated with its new billing system, the Customer and Stakeholder Project (CASPr), be allocated based on customer numbers rather than direct labour costs. However, this proposed allocation approach differs from the treatment of its current billing system and is also not consistent with the treatment of other information and communication technology (ICT) costs.[67] As outlined by AtkinsRéalis, the existing direct labour allocation approach results in an allocator that does not have a strong causal link with several cost centres (see below).[68] Therefore, rather than using a piecemeal approach to selecting allocators, we consider it appropriate to use direct labour costs, pending a comprehensive review by Sunwater of its cost allocation approach.

In addition, the mark-up that Sunwater has applied to direct labour costs in regulated schemes (i.e. the overhead recovery rate) to derive corporate and local overheads for the 2022-23 base year is significantly lower than would be required to fully recover its corporate and local overhead costs.[69] Sunwater said that the resultant under-recovery of corporate and local overheads was reflective of the need to balance the enablement functions in these areas, with expected future activity in the infrastructure delivery component of the organisation, without passing on the latter costs to regulated schemes (and other existing service contracts).[70]

[67] The existing billing system (Orion) was initially capitalised in 2012–13 with a life of 8 years, with an annual depreciation charge equal to $2.0 million (2022–23) included in the indirect cost base for allocation using direct labour costs. In addition, all other ICT costs are either capitalised (and then depreciated) or expensed with the resultant costs included in the corporate overhead cost base for allocation using direct labour costs.
[68] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 93–97.
[69] The calculated cost recovery rate is based on the total overhead or indirect cost forecast to be recovered from the relevant schemes and projects, divided by total direct labour costs for these schemes and projects. For example, the corporate overhead cost recovery rate is calculated as the total corporate overheads to be recovered across Sunwater's business divided by total direct labour costs for all schemes and projects.
[70] Sunwater, response to RFI 68.

Table 8 shows that even though Sunwater has capped the corporate and local overhead recovery rates to well below the cost-reflective rates,[71] these proposed recovery rates are significantly higher than those used in the 2020 review (Table 8).

Table 8: Comparison of Sunwater's proposed overhead and indirect cost recovery rates with the 2020 review (%)[a]

	2020 review	Sunwater's proposal[b]
Corporate overheads		
All regions and schemes/systems	78	95
Local overheads		
North region	72	65
Central region	49	65
Bundaberg region	43	60
South region	67	70
Indirect costs		
Bulk schemes[c]	72	46
Distribution systems	52	35

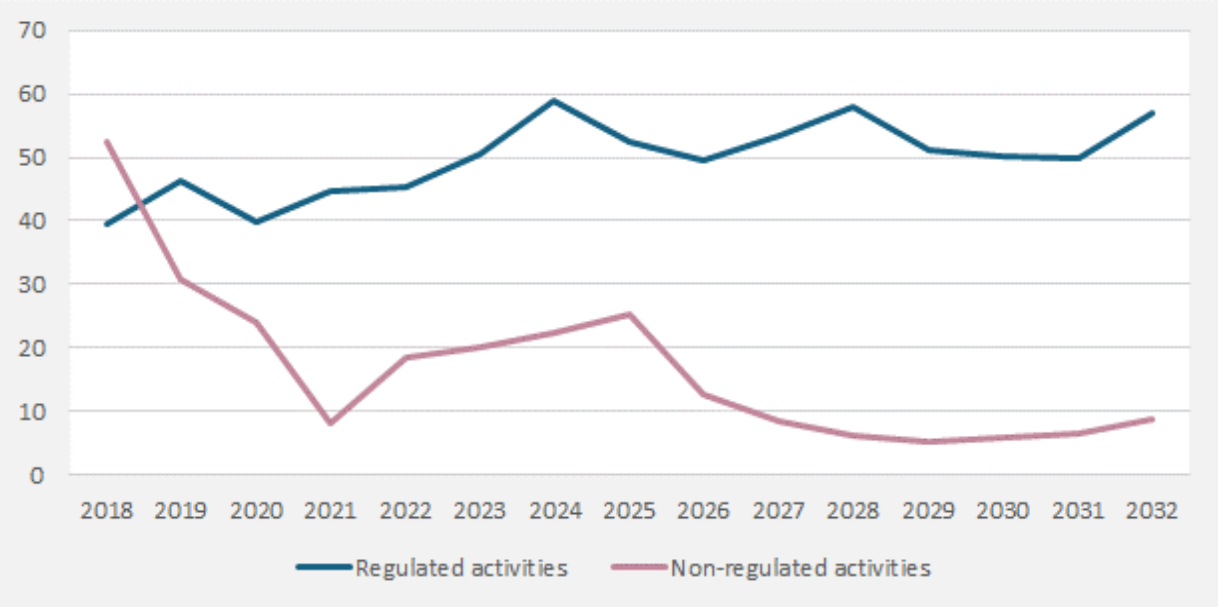
a Overhead (and indirect) cost recovery rates are multiplied by direct labour costs in a regulated scheme, to determine the level of overhead (or indirect) costs to be recovered from the scheme. b Sunwater has capped its proposed recovery rates for corporate and local overheads below the applicable cost recovery rates. c These recovery rates do not account for costs associated with resources centres such as flood event management, operations and emergency preparation.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, response to RFI 68.

In reviewing Sunwater's cost allocation approach, AtkinsRéalis noted that while direct costs associated with non-regulated services are projected to grow faster than direct costs associated with regulated services, regulated services are expected to attract a disproportionate share of overhead and indirect costs.[72]

This is further demonstrated by the fact that overhead and indirect costs allocated to regulated services are projected to be significantly higher than overhead and indirect costs allocated to non-regulated services (Figure 12).

[71] For example, the calculated rate for corporate overheads in 2022–23 actuals (excluding costs associated with the new billing system) was 161.0%, up from 80.7% in 2019–20, while the calculated rate for local overheads in 2022–23 actuals ranged from 71.0% (Bundaberg) to 101.1% (South region) (Sunwater, response to RFI 68).
[72] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 87–89.

Figure 12: Overhead and indirect costs as a percentage of pre-overhead total expenditure (totex)[a] (%)



a Totex refers to total expenditure (opex and capex).
Source: Sunwater, response to RFI 68; QCA analysis.

AtkinsRéalis noted that good practice allocation would look to maximise direct time booking and use causal allocators or close proxies to causal allocators for the remainder.[73]

AtkinsRéalis considered that there might be potential to improve causality in the choice of allocators while minimising accounting change, by allocating corporate overhead as follows:

- Use totex to allocate overhead relating to planning, risk, contracts and assets.
- Use direct labour to allocate overhead relating to people management.
- Use customer metrics (e.g. numbers or revenue) to allocate overhead relating to customer service and billing.[74]

Preliminary analysis by AtkinsRéalis indicated that a change in allocation approach would not make a material difference in allocated overhead and indirect costs for this review given that Sunwater is not proposing to recover some of the increase in these costs from regulated schemes and has capped the relevant recovery rates.[75]

However, given the potential for a significant increase in the cost base in future price path periods, we consider that Sunwater should investigate ways of improving the causality, transparency and simplicity of its cost allocation approach prior to the next review.

Prudency and efficiency of the baseline overhead and indirect cost base

We have reviewed historical trends and their drivers in overhead and indirect costs, in determining the prudency and efficiency of overhead and indirect costs allocated to regulated schemes.

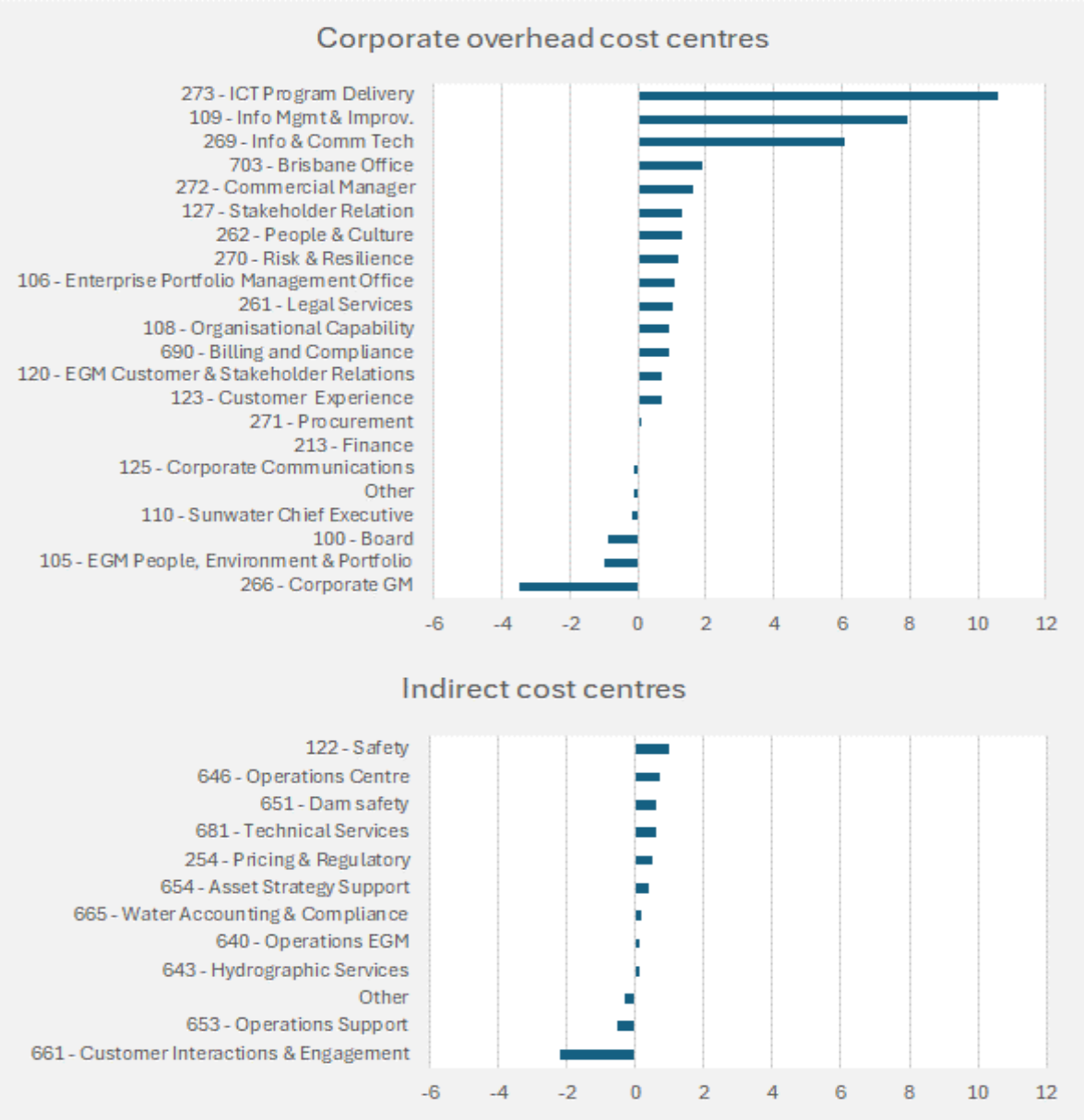
As there has been reallocation of some costs between indirect costs and corporate overheads in previous years, we have considered these categories together. Together, these two categories are up $1.8 million from the 2020 review.

[73] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 92–93.
[74] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 94–95.
[75] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 95–96.

We note that there has been a significant increase in the overall corporate overhead base between 2019–20 and 2022–23 (Figure 13). There have been smaller increases in most indirect cost centres and a reduction in the customer interactions and engagement pool due to the depreciation for the current billing system, Orion, ceasing from 2021–22 onwards.

While benchmarking can be challenging due to different definitions, scale of business and operating circumstances, AtkinsRéalis undertook benchmarking analysis of corporate costs against other rural water businesses (including distribution systems under Local Management Arrangements (LMAs)) to supplement its assessment of the prudency and efficiency of Sunwater's corporate costs.[76] This analysis suggests that Sunwater is not obviously more efficient than other rural water businesses.

Figure 13: Change in corporate overhead and indirect cost bases by cost centre, 2019–20 to 2022–23 ($million, 2022–23)



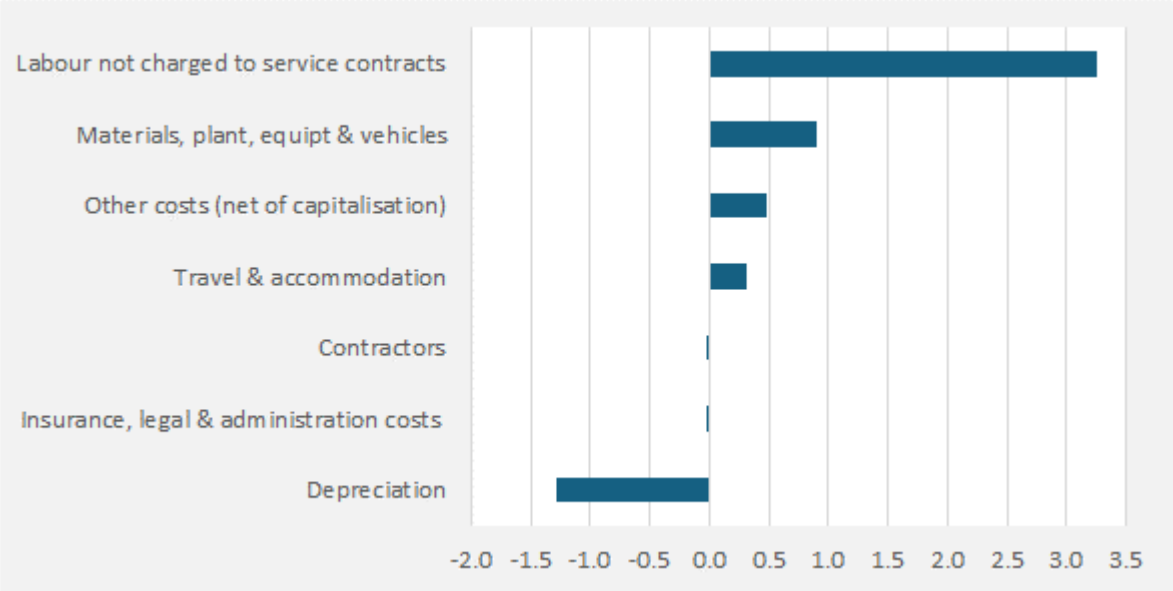
Source: Sunwater, response to RFI 68; QCA analysis.

[76] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 79–86.

Local overheads appear to be driven by the utilisation rates of operational and maintenance staff, so we have considered this category separately.

Local overheads are up $1.6 million from the 2020 review allowance. An increase in the labour component of the local overhead base (due to lower labour utilisation rates) appears to have driven a significant increase in the local overhead base between 2019–20 and 2022–23 (Figure 14).

Figure 14: Change in local overhead base by cost type, 2019–20 to 2022–23 ($million, 2022–23)



Source: Sunwater, response to RFI 68; QCA analysis.

Our proposed overhead and indirect costs

Overall, our assessment indicates that Sunwater incurred significant increases in the overhead and indirect cost base during the last price path period and is projecting these increases to be maintained over the upcoming price path period. However, Sunwater is not proposing to recover the increases in local and corporate overheads proportionally from regulated customers, as a significant component of the increase is driven by non-regulated services.

As demonstrated by our assessment of Sunwater's cost allocation approach, this reflects that direct labour may not be the most effective allocator of overhead and indirect costs, particularly as it relates to local and corporate overheads, in an environment where significant expenditure is projected for major projects that have little or no relationship to regulated services.

Since a key driver of the increase in the overhead and indirect cost base relates to increases in non-regulated services – noting that there is limited growth projected for regulated services – we have separately assessed increases since the 2020 review, that Sunwater is proposing to recover from regulated schemes, to determine whether it is appropriate to pass these on to regulated schemes.

In the case of corporate overheads, AtkinsRéalis considered that a large proportion of the increase in ICT costs appears to be driven by internal business decisions with no clear benefits (such as ongoing efficiency savings) discernible for regulated schemes.[77] For example, general provision of ICT equipment and desktop support for an expanding organisation appears to relate to the non-regulated part of the organisation which is projected to experience some growth. For significant

[77] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 57–58.

increases in ICT costs not related to external factors, we would expect strong justifications to ensure they deliver significant benefits for regulated schemes that outweigh the costs. We also note that there has been a significant overspend (relative to initial scope) in ICT projects over the current price path period which AtkinsRéalis attributed to inefficiencies in estimating costs and managing ICT project delivery.[78]

The exception relates to cyber risk and associated legislation, which appears to be driven by regulatory obligations and has required a material investment to enable Sunwater to self-insure in this area.

Increases in other areas of corporate overheads for which we have identified clear cost drivers with implications for regulated schemes are:

- enterprise portfolio management, which has seen an increase in costs due to the need to improve portfolio, program and project management processes in response to the emergence of investment drivers such as minimising electrical risks in line with legislative requirements (through the Arc Flash program) and addressing obligations around dam safety
- stakeholder relations, which have seen an increase due to improved customer engagement and promoting respect and recognition of First Nations peoples.

In the case of indirect costs, we have identified the following cost drivers with implications for regulated schemes:

- dam safety – new guidelines that came into effect in 2021 have required additional dam safety management activities
- safety – there has been a material evolution in safety responsibilities and focus since the 2020 review.

In the case of local overheads, we note that the key driver for the increase in the cost base is the reduction in utilisation rates for direct labour and that this reduction has occurred even as direct labour costs have increased.

This may reflect a temporary reduction in productivity, in anticipation of a future increase in operations and maintenance work in non-regulated services. Given this, we do not propose recovering the increase in local overheads from regulated schemes.

We consider it is appropriate to pass on a portion of the increases in the corporate overhead and indirect cost base that we have identified to be justified (Table 9).[79]

[78] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 113.
[79] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 98–99.

Table 9: Increase in corporate overhead and indirect cost allocated to regulated schemes ($million, 2022-23)

Cost centre	Cost category	Change in cost	Share allocated to regulated schemes[a]
Cyber security	Corporate	1.8	0.4
Enterprise portfolio management office	Corporate	1.1	0.2
Stakeholder relations	Corporate	0.6	0.1
Incremental cost of new billing system (CASPr)[b]	Corporate	0.4	0.1
Retirement of Orion billing system[c]	Indirect	(2.0)	(0.8)
	Corporate	2.0	0.4
Safety	Indirect	0.9	0.4
Dam safety	Indirect	0.6	0.2
Total		**5.5**	**1.1**

a Reflects the proportion of the relevant cost base that Sunwater allocated to regulated schemes in the 2022–23 base year. b We assess the prudency and efficiency of CASPr in section 4.3. c Orion (coded as an indirect cost by Sunwater) is being discontinued and replaced with CASPr (coded as corporate overhead by Sunwater).
Note: Totals may not add due to rounding.
Source: AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 98–99; QCA analysis.

The net effect of our draft position is that, relative to the adjusted baseline, there is a net decrease of $0.8 million in indirect costs and a net increase of $0.4 million in corporate overhead, due to the transfer of billing system costs from indirect costs to corporate overheads (Table 10). We have also reduced local overheads to a level consistent with our 2020 review allowance, given the lack of justification for the magnitude of the adjusted baseline.

Table 10: QCA draft position – overhead and indirect costs ($million, 2022-23)

	Corporate overheads	Local overheads	Indirect costs	Total
Adjusted baseline[a]	12.1	8.2	7.0	**27.3**
Our draft position[b]	12.5	6.6	6.2	**25.4**
Difference	**0.4**	**(1.6)**	**(0.8)**	**(2.0)**

a This reflects Sunwater's 2022–23 actuals adjusted for recurrent costs not incurred in baseline year (i.e. the regulated schemes' share of annual depreciation charge for the existing billing system – see Table 3). b Relative to our 2020 review allowance, we have increased the combined level of corporate overheads and indirect costs by $1.1 million, reflecting the increases in the cost base we have assessed to be justified. We have maintained local overheads at the level of the 2020 review allowance, as we do not consider the increase to be justified.
Note: Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA analysis.

Our draft position amounts to a 4.5% increase in overhead and indirect costs relative to our 2020 review recommendation ($24.3 million)[80] but a 4.2% reduction relative to Sunwater's proposed baseline ($26.5 million).

Relative to Sunwater's proposal, our draft position results in a higher cost recovery rate for corporate overheads and a lower cost recovery rate for local overheads. Table 11 shows our draft cost

[80] Adjusted for the difference between our forecast of inflation and actual inflation.

recovery rates, which we have applied in deriving our alternative estimate for Sunwater's forecast renewals program (section 5.4.4).

Table 11: Draft cost recovery rates (%)

	Sunwater's proposal	QCA draft position
Corporate overheads	95	98
Local overheads[a]	64	52
Indirect costs		
Bulk schemes	*46*	*46*
Distribution systems	*35*	*35*

a Calculated as the average across North, Central, Bundaberg and South regions.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, response to RFI 68.

While we acknowledge that Sunwater is not proposing to recover the full increase in the overhead and indirect cost base from regulated schemes and has applied a cost recovery rate lower than would be reflected by the full increase in the cost base, we consider our adjustments result in a more appropriate baseline, as they only include increases for which we have identified clear cost drivers for regulated schemes.

4.2.3 Electricity

Electricity costs for distribution systems and bulk water supply schemes that require pumping to supplement stream flows can be relatively high and tend to be highly variable and uncertain.

We have therefore undertaken a bottom-up assessment of baseline expenditure for these costs, accounting for the most favourable electricity tariffs available to Sunwater and Sunwater's electricity usage in a typical year.

Our starting point was to review Sunwater's energy procurement program and Sunwater's approach to managing electricity consumption.

Approach to energy procurement

Sunwater procures its electricity in two ways – that is, through:

- negotiated wholesale market contracts ('contestable') – Sunwater became aware of, and entered, the Queensland Government Procurement Office's whole of government electricity supply arrangement (established in January 2019) during the 2020-25 price path. The agreement has a 10-year term, terminating in 2029. Sunwater currently purchases 78% of its power through this agreement
- regulated retail tariffs – these tariffs are determined by us annually and now make up 22% of energy use, mainly smaller use sites. The number of sites on this tariff has been reducing over time as regulated tariffs have increased.[81]

Sunwater carries out an annual review to ensure that all schemes on a regulated retail tariff are on the optimal tariff or, where there is a financial benefit from doing so, transfer to the contestable market. [82] There are several factors which have meant that it is currently preferable to maintain some

[81] Sunwater, sub. 15, p. 3.
[82] Sunwater, sub. 9, p. 73.

schemes on the regulated retail tariff. These factors include banding (e.g. some sites would move from a small tariff designation to a large tariff designation on the contestable tariff) and the mix of fixed versus variable charges for sites with intermittent use. It is also notable that once large customers in a scheme enter the contestable energy market, they cannot return to a regulated retail tariff. The annual review that Sunwater conducts evaluates different regulated retail tariffs as well as contestable tariffs. It is based on a minimum of four years of data and examines whether a change would have been better in each of the years. As a result of these reviews, Sunwater has been able to make significant savings in electricity costs.[83]

Given that Sunwater is making use of competitive wholesale market contracts available to it and carries out annual reviews to ensure sites are subject to the optimal tariff, we consider that Sunwater has an effective approach to energy procurement. Sunwater has shared some of the savings achieved with customers through the electricity cost pass-through trial over the three years from 2020–21 to 2022–23, which is discussed further in section 4.5.

Approach to optimising energy use

Sunwater said it has been carrying out energy audits since 2020[84] to examine the potential for alternative generation, operational optimisation and efficiency projects (such as power factor correction and variable speed drives). These have been completed for all but five of the smallest-use schemes, and a Power Factor Correction Study remains in progress. The audits have led to the installation of 159 kW of small-scale solar photovoltaic (PV) and the bringing forward of some pump refurbishment.

Sunwater's annual review also allows for optimisation gains. For example, it became apparent that Yarramalong Pump Station was being reclassified from a small to a large user tariff. The energy audit team found that the operators were turning all three pumps on at the same time to test the equipment. By changing this operation to single pump tests, Sunwater was able to save approximately $15,000 per annum.

Assessing the baseline estimate

Sunwater proposed an upward adjustment of $1.2 million in electricity expenditure to the 2022–23 base year opex, due to lower electricity use from atypical wet weather.[85]

Sunwater's energy consumption during 2022–23 was 30% below the 6-year average and 22% below the long-term average of 16 years.[86]

Sunwater carried out detailed modelling of electricity demand at the scheme level using five years of detailed data to derive peak demand and rescaling consumption to the 16-year average at the individual scheme level.

In the 2020 review, for distribution systems where power use is more clearly linked to consumption, our approach was to derive the:

- variable cost per megalitre (ML) of water use as the average variable cost over 2013–14 to 2018–19[87] divided by average actual water usage over the same 6-year period

[83] Sunwater, sub. 15, pp. 2–5.
[84] Sunwater, personal communication during an interview with AtkinsRéalis.
[85] Sunwater, sub. 9, p. 61. Sunwater noted that the Bureau of Meteorology had identified the 2022-23 North Queensland wet season as the sixth-wettest on record.
[86] Sunwater said that 16 years is the extent of records that it has available.
[87] Derived by applying the 2019–20 electricity tariff for each large connection site to daily consumption and demand data from 2013–14 to 2018–19.

- fixed cost (for the 2019–20 base year) as the average fixed cost over 2013–14 to 2018–19.

Given Sunwater's relatively low energy consumption in 2022–23 in comparison to historical averages,[88] Sunwater's proposed baseline is significantly less than the total allowance outlined in the 2020 review (Table 12).

Table 12: Electricity costs compared to 2020 review allowance ($million, 2022–23)

	Proposed baseline	2020 review	Difference
Electricity costs	10.5	14.8	(4.3)

Source: Sunwater, sub. 9; QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020.

It is evident that Sunwater has made savings as a result of external factors (weather), effective procurement and some savings from energy audits. The average unit cost paid by Sunwater also contributed to this lower spend, which declined by 16% in 2019–20 (in real terms), and largely stayed at this lower level.

Given the findings above, we consider that Sunwater has effective procurement procedures and robust management practices in place to ensure efficient allocation of electricity expenditure. Therefore, we have assessed the proposed base year expenditure as prudent and efficient.

4.3 Step changes

In this section, we assess three proposed costs as potential step changes. These costs are:

- billing system renewal – Sunwater proposed a step change to cover the implementation of its new billing system, CASPr (section 4.3.1)
- renewals opex – under its proposed RAB approach, Sunwater has proposed to recover a significant portion of its annual forecast renewals expenditure as an opex step change (section 4.3.2)
- regulatory fee – while Sunwater proposed to treat the QCA regulatory fee as a revenue adjustment, we have assessed it as a cyclical step change arising from Sunwater's regulatory obligations consistent with the approach in the 2020 review (section 4.3.3).

Our draft position is that it is appropriate to recover the regulatory fee as a step change. However, we have recovered the billing system costs and renewals opex in other parts of our proposed allowance.

4.3.1 Billing system

Sunwater said it was investing $38.6 million[89] to replace an aged and no-longer-supported customer billing and contact management system to ensure that it can continue to provide the personalised service that customers expect.[90] Sunwater proposed to treat this build cost as capex to be recovered under its proposed RAB approach with a commissioning date of 1 July 2025 and an asset life of 20 years.[91] Sunwater also proposed a step change of $1.7 million each year of the price path period to

[88] Note that actual water usage in 2022–23 in each of the distribution systems was also below the historical 20-year average.
[89] Sunwater said that this amount reflected costs expected to be incurred from 2022–23 to 2024–25, adjusted to 2022–23 dollars. Sunwater said that this amount would be capitalised to $42.4 million allowing for a 1 July 2025 commissioning date.
[90] Sunwater, sub. 9, p. 18.
[91] In deriving prices under the alternative annuity approach in Appendix A of its proposal, Sunwater treated this cost as renewals expenditure to be recovered through the renewals annuity.

account for the ongoing costs associated with this billing system.[92] Sunwater proposed to share the costs of its new billing system across regulated and non-regulated service contracts using customer numbers as the appropriate cost allocator.

In general, stakeholders were concerned about the high overall cost (in opex and capex) associated with the billing system, as well as the approach to allocating these costs to schemes and individual customers.[93]

We note that Sunwater's proposed treatment of the build costs for the new billing system for regulatory purposes is inconsistent with its classification and allocation of other non-infrastructure (including ICT) opex and capex, which are normally treated as an overhead or indirect cost and allocated to regulated and non-regulated service contracts based on direct labour.[94] For example, Sunwater's previous billing system was treated as ICT capex, with an amortisation charge incorporated in the overhead and indirect cost base allocated to the opex (and renewals) allowance we recommended in the 2020 review.[95]

We also have concerns with including this cost in the renewals expenditure allowance given this allowance is allocated between high and medium priority customer groups based on the headworks utilisation factor methodology, which is only appropriate for the allocation of infrastructure (in particular, headworks) expenditure.

We propose applying the current approach to incorporating the incremental impact of the costs of the new billing system until a more causal cost allocation approach is in place.

Build costs

AtkinsRéalis reviewed the need and timing of expenditure associated with the new billing system and concluded that there was a need to replace Sunwater's previous billing system and implement a customer records management (CRM) solution, as the previous billing system was at the end of its useful life and was being withdrawn from the market by the vendor, and Sunwater's CRM capability was inadequate.[96]

AtkinsRéalis also noted that a new system would address:

- technical and cyber risks identified by Sunwater, which required active management, mitigation and monitoring by the ICT Operations team
- compliance risks with relevant legislative and regulatory requirements.[97]

We have assessed the project to be prudent as:

- the previous billing system came to the end of its useful life in the previous price path period and was being withdrawn from the market by the vendor
- Sunwater had limited capability in relation to CRM under the previous system
- the project addresses technical and cyber risks, and compliance risks relating to relevant legislative and regulatory requirements.

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[92] Sunwater, sub. 9, pp. 65–66.
[93] BRIG, sub. 41, p. 4; BRIA Irrigators, sub. 42, p. 14; Canegrowers, sub. 43, p.1; Central Downs Irrigators, sub. 46, p. 3; CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, pp. 3–4; EICL, sub. 49, p. 6; Nogoa-Mackenzie IAC, sub. 57, p. 1; Theodore Water, sub. 61, p. 1; Wilmar Sugar Australia, sub. 62. p. 1.
[94] We note that Sunwater has treated this as part of corporate overheads in its own financial reporting.
[95] The overhead and indirect cost base in the 2018–19 baseline year included $2.0 million (2022–23 dollars) for the old billing system (Orion), which was depreciated over 8 years from 2014–15 and recovered through indirect costs.
[96] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 115.
[97] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 115.

However, we do not consider that the cost of the project is efficient. Specifically, we note AtkinsRéalis's assessment that there were significant weaknesses in how this project was managed from an options assessment, budgetary, procurement and governance perspective.[98]

We also note that the build cost for the project has changed significantly since the need was first identified, from an initial forecast of between $0.5 million and $1 million, to the present estimate of $38.6 million, with little indication of a budget limit or value for money assessment informing the evaluation process during this time.[99] Sunwater appears to have significantly underestimated the required cost initially, due to a lack of relevant expertise. As relevant expertise was brought onto the project, the project cost evolved to an estimate of $18.5 million in January 2022. However, there is limited justification for the jump in build costs from $18.5 million in January 2022 to $39 million in March 2023.

We note that Sunwater identified a range of $4.5 million to $20 million in benchmarking analysis submitted as part of its pricing proposal.[100] Within this range, AtkinsRéalis considered the January 2022 cost estimate of $18.5 million (2022–23 dollars) to be appropriate noting that it:

- represents the approved value before inefficiencies and omissions in Sunwater's management of the project were identified, leading to the escalation in cost
- is at the upper end of the range of publicly available costs for similar implementations
- reflects a reasonable cost per customer to implement a project of this type, for a water utility of the size and customer base of Sunwater. [101]

We consider the cost estimate of $18.5 million appropriate as it removes costs that could have been avoided with better scoping and reflects the costs of similar implementations for water businesses with the size and customer base of Sunwater.

We consider that treating the build cost as capex is consistent with standard regulatory practice in that Sunwater is incurring high upfront costs to generate a product that provides a service over multiple years. We also note that while this project was not included as part of Sunwater's cost proposal for the 2020 review, Sunwater treated all other SaaS build costs in the 2020 review as capex, based on accounting standards at the time.[102]

Taking these factors into consideration, we consider there is merit in treating the build cost as capex. However, as with our general approach to ICT capex, we consider it appropriate to amortise these costs and recover them through corporate overheads. We note that this is the approach adopted by Sunwater for all other non-infrastructure capex.

AtkinsRéalis's considered 15 years to be a more appropriate asset life, since this aligned more closely with the length of time that the current billing system has been operating and to also account for the uncertainty in the SaaS operating model for this system.[103]

The annuitised build costs are $1.7 million per annum. However, this is offset by the $2 million in savings arising from the decommissioning of the Orion billing system, resulting in a net saving of $0.3 million per annum.

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[98] AtkinsRéalis, Expenditure Review for Rural Irrigation Price Review 2025–29, final report, June 2024, p. 124.
[99] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 119.
[100] Sunwater, *Customer and Stakeholder Project (CASPr), Detailed Business Case*, Execution Phase, March 2023, p. 78.
[101] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 124.
[102] Sunwater, *2020–21 Annual Report*, September 2021, p. 55; Sunwater, *2021–22 Annual Report*, September 2022, p. 51.
[103] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 123.

Ongoing opex

Sunwater proposes to recover the ongoing costs of the new customer billing system as a step change in opex. Sunwater estimated these costs at $1.4 million per annum (2022–23 dollars).[104] This was based on an average nominal step change over the price path period of $1.9 million per annum less savings from the existing systems no longer required of $0.3 million each year.

AtkinsRéalis's identified additional operational savings reflecting:

- savings of $0.4 million each year from no longer having to maintain existing systems
- a reduction in support labour costs of $0.3 million each year related to the previous Orion billing system.[105]

Net step change

Table 13 summarises our proposed adjustments to Sunwater's proposed annual step change.

Table 13: Calculation of annual step change for new billing system ($ million, 2022–23 dollars)

	$ million, 2022–23 dollars
Sunwater proposed step change (ongoing opex)	**1.4**
Reduction for other system savings	(0.4)
Reduction for labour efficiencies	(0.3)
Net impact – ongoing opex	**0.7**
CASPr build cost (annual annuitised amount)	1.7
Reduction for savings from Orion asset life ending	(2.0)
Net impact – build costs	**(0.3)**
Total net incremental cost	**0.4**
Share allocated to regulated schemes	**0.1**

Source: Sunwater, sub. 9; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 87, 124.

Allocating the resulting $0.4 million across regulated and non-regulated service contracts using Sunwater's current cost allocation approach for corporate overheads results in $0.1 million to be recovered from regulated schemes.

Given that this is not a material change, we have treated this as an adjustment to baseline opex.

4.3.2 Renewals opex

In the context of its proposed transition to the RAB approach, Sunwater is proposing to recover renewals opex as part of its opex allowance.[106] This results in a step change in base opex.

While it is appropriate, under the RAB approach, to include any opex previously recovered through the renewals annuity in Sunwater's opex allowance, it is important that only expenditure that is appropriate to classify as opex is included in the opex allowance.

[104] Sunwater, supporting information accompanying sub. 9.
[105] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 87.
[106] Sunwater, sub. 9, p. 113.

As discussed in Chapter 7, Sunwater's capitalisation policy leads to a large portion of renewals being expensed, which appears to differ from standard practice by other utilities in Australia. We outline in Chapter 7 that we consider that Sunwater needs to do further work to appropriately delineate renewals opex before transitioning to the RAB approach.

Our assessment of the prudency and efficiency of the opex component of renewals expenditure is undertaken in Chapter 5.

4.3.3 Regulatory fee

Several stakeholders did not support the recovery of our regulatory fees through irrigation prices and considered they should be excluded.[107] In addition, QFF recommended a longer period between pricing reviews to give business greater certainty on pricing and reduce regulatory costs paid for pricing reviews, which in effect would contribute to lower prices for all stakeholders.

We note that there are trade-offs between longer regulatory periods (e.g. more certainty) and shorter regulatory periods (e.g. reduced risk) and that it is currently a matter for the government as to how best to address these trade-offs.

QFF also stated that should the regulatory fees continue, then the cost should be recovered across all water access entitlements (WAEs) and not just irrigation WAEs.[108]

The apportionment of regulatory costs will generally have regard to fairly allocating the costs to the beneficiaries of the regulatory service, and to the terms of the referral from the Treasurer. Where costs cannot be linked to a particular service or user, they would generally be allocated using a fair and reasonable cost allocation methodology. In this context, we consider irrigation WAEs to be an appropriate allocator.

We note that our review is limited to pricing for irrigation customers in Sunwater's irrigation service contracts. The structure and level of prices for non-irrigation customers in these service contracts are outside the scope of our review and are matters for Sunwater to negotiate with customers. We are undertaking this investigation to give effect to the key objectives of the government's water pricing policy, including the gradual transition to a price target that excludes a return on pre-2000 assets and dam safety upgrade capex. As such, we consider that irrigation customers are the key beneficiaries of the regulatory service and should be allocated the associated costs.

We note that this allowance can only recover regulatory fees charged by us up to a cap of $3.5 million. This amount, charged in 2023–24 and 2024–25, has been smoothed over the price path period (Table 14).

Table 14: Regulatory fee charged for this review ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Regulatory fee	0.9	1.0	1.0	1.0	**3.9**

Note: Sunwater's share of the regulatory fee within the $3.5 million cap ($3.35 million) has been projected across the price path period in present value neutral terms using our proposed WACC.

[107] CHCGIA, sub. 47, p. 2; Nogoa-Mackenzie IAC, sub. 57, p. 1; Queensland Farmers' Federation (QFF), sub. 59, p. 4.
[108] QFF, sub. 59, p. 4.

4.4 Efficiency target

We consider that Sunwater has the potential for ongoing efficiencies over the upcoming price path period and have accepted Sunwater's proposed ongoing opex efficiency target of 0.5% per annum over this period.

Sunwater's proposal outlines various areas of efficiency savings it claims to have achieved through its Value Improvement Program in the current period. These areas encompass energy efficiency, insurance costs, and enhancing customer and stakeholder engagement. Sunwater also aims to improve its systems to better support the business in meeting engagement expectations.

Sunwater has built in a cumulating annual efficiency target of 0.5% per year from 2024 onwards, applicable to 'non-controllable' as well as 'controllable' opex.

We believe that Sunwater has significant potential for opex efficiency, particularly in the areas of:

- procurement – Sunwater's initiatives in this area, including a strategic procurement planning process commenced in October 2023 and business unit procurement plans that are currently being developed, are expected to support efficiency improvements across all externally sourced activities
- electricity – we anticipate that Sunwater can make continued electricity savings by implementing measures emerging from its power correction factor study[109]
- technology – Sunwater's Technology Strategic Roadmap outlines substantial enhancements, particularly in technology-enabled workforce and automation.[110] As noted by AtkinsRéalis, when combined with previous significant investments in capability improvement and ICT, this presents a notable efficiency opportunity. We also note that Sunwater has proposed several new supervisory control and data acquisition (SCADA) systems aimed at enhancing performance, reducing travel costs and time, and improving safety by minimising travel-related risks. We consider there is substantial potential to expand SCADA implementation across Sunwater's geographically dispersed system, which is likely to result in offsetting savings through reduced travel expenses and time[111]
- cost control – there are some areas where costs have increased with limited evidence of links to external drivers and strong cost management. We consider there is likely to be scope for efficiencies through stronger cost monitoring and control
- labour productivity – the 2023 EA requires Sunwater staff to achieve a productivity offset equal to half of the increases as follows:

  > The payment of the above increases requires your commitment to the productivity offset of half of the wage increase per annum as required by the Government Owned Corporations Act 1993 (Qld) and the Queensland Government's wages policy

  This is equivalent to a productivity gain of 2.25% in 2023–24 (following on from 2.25% in 2022–23) and 1.75% in 2024–25.

We consider that Sunwater should develop a plan for achieving its proposed 0.5% annual efficiency challenge over the price path and that the proposed efficiency challenge is reasonable and achievable.

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[109] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 156, 163.
[110] Sunwater, response to RFI 54.
[111] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 163.

4.5 Review events

In accordance with the referral, we make an end-of-period adjustment to the opex allowance to reflect any increase or decrease in costs caused by the occurrence of a review event in the current price path period.[112]

Sunwater proposed to recover an increase in costs arising from an insurance review event. We also assessed a potential electricity review event, given that Sunwater reported making significant cost savings over the current period, mainly due to lower electricity prices.[113]

Our draft position is to adjust Sunwater's proposed review event adjustment for insurance costs and to also include a review event adjustment for electricity costs (Table 15).

Table 15: Review event cost adjustments – QCA draft position ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposed	**2.8**	**2.9**	**3.0**	**3.1**	**11.8**
Insurance	2.8	2.9	3.0	3.1	**11.8**
Electricity	-	-	-	-	**-**
QCA draft position	**0.3**	**0.3**	**0.3**	**0.3**	**1.1**
Insurance	2.3	2.4	2.4	2.5	**9.6**
Electricity	(2.0)	(2.1)	(2.1)	(2.2)	**(8.5)**
Total difference	**(2.6)**	**(2.6)**	**(2.7)**	**(2.8)**	**(10.7)**

Notes: Our proposed review event for electricity accounts for credits paid out under the electricity cost pass-through trial. Total may not add up due to rounding.
Source: Sunwater, sub. 9, pp. 39–40; QCA analysis.

4.5.1 Insurance review event

Sunwater proposed to recover an additional $10.5 million in insurance premiums over the current period, reflecting the difference between our recommended allowance for insurance premiums and Sunwater's actual insurance premiums.[114]

Some stakeholders objected to Sunwater's proposal to recover the additional costs.[115] BRIA Irrigators acknowledged the cost under-recovery was genuine but objected on the basis that the community service obligation (CSO) payment would have covered the additional costs if they had been recovered in the current period.[116] Sunwater is entitled to recover the additional costs if the definition of the review event is met. Whether the costs would have been covered by the CSO payment if they had been recovered earlier is not a relevant factor in our assessment.

Some stakeholders had concerns about the significant increase in insurance costs and whether Sunwater had appropriately managed risk and minimised expenditure.[117] AtkinsRéalis assessed Sunwater's proposed costs and found the overspend to be prudent and efficient, noting that Sunwater had taken appropriate steps to manage and mitigate the increase in premiums, including:

[112] Referral, para. B(1.1)(a); QCA, *Rural irrigation price review 2020–24, Part A: Overview*, final report, January 2020, p. 43.
[113] Sunwater, sub. 9, p. 39.
[114] Sunwater, sub. 9, pp. 39–40; Sunwater, 08 Insurance Catchup Final Values.
[115] Cotton Australia, sub. 48, p. 6; BRIA Irrigators, sub. 42, p. 14; BRIG, sub. 41, p. 4.
[116] BRIA Irrigators, sub. 42, p. 14.
[117] Cotton Australia, sub. 48, p. 6; QFF, sub. 59, p. 4; Fairburn Irrigation Network, sub. 50, p. 6; Nogoa-Mackenzie IAC, sub. 57, p. 1.

- actively engaging with insurers and regularly reviewing coverage and options to self-insure
- undertaking an asset revaluation, which reduced asset values and premiums
- increasing the deductibles on liability insurance and reducing coverage
- self-insuring for cyber risks.[118]

We consider that the increase in insurance premiums is material. Over the current period, Sunwater's premiums are expected to be 21.9% higher than forecast, and the increase in premiums is around 2% of Sunwater's total cost allowance.

We are satisfied that Sunwater's proposal meets the definition of an insurance review event, because the change in costs were driven by higher insurance premiums, are sufficiently material, and are prudent and efficient.

Table 16: Insurance review event cost adjustment – QCA draft position ($ million, nominal)

	2020-21	2021-22	2022-23	2023-24[a]	2024-25[a]	Total[a]
Sunwater proposal	1.5	0.6	1.3	3.0	3.9	10.5
QCA draft position	1.5	0.6	1.3	2.1	2.8	8.4
Difference	-	-	-	**(0.9)**	**(1.1)**	**(2.1)**

a These are draft figures, which will be updated in our final report. As outlined in section 6.1, we have updated cost escalations for insurance based on more recent information. b Totals may not add due to rounding.
Source: Sunwater, 08 Insurance Catchup Final Values, November 2023.

Sunwater proposed to allocate the costs to schemes based on each scheme's asset value. We consider that this approach is appropriate, because it aligns with the approach used to allocate forecast insurance costs in the 2020 review.[119] We adjusted forecast opex for each scheme by smoothing the under-recovery over the price path period.

4.5.2 Electricity review event

Overall, Sunwater made significant savings in electricity costs over the current period. The savings were mainly driven by Sunwater's decision to move a significant number of sites that consume large amounts of electricity (typically pumping stations) from a non-market contract paying regulated retail electricity tariffs to a whole of government market contract. This move resulted in Sunwater incurring lower wholesale electricity costs than it would have incurred under the applicable regulated retail electricity tariff.[120]

Sunwater also engaged in other cost saving initiatives, such as assessing whether sites were assigned to the optimal tariffs, optimising the operation of pumps and replacing ageing pumps, installing monitoring technology, and examining alternative supply options, such as solar PV.[121]

Sunwater did not propose a review event to pass through electricity cost savings, on the basis that the savings had already been returned to customers through the electricity cost pass-through (ECPT) trial.[122] However, the ECPT trial only applied for the first three years of the current period

[118] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 164.
[119] QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 27.
[120] Sunwater, sub. 15, pp. 2–3.
[121] Sunwater, sub. 9, p. 22; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 146–147.
[122] Sunwater, sub. 9, p. 39.

(2020–21 to 2023–24) and it did not cover all schemes.[123] We therefore assessed whether an additional cost adjustment should be made.

The review event applies to material changes in electricity costs. We therefore excluded schemes with cost differences of less than $0.5 million over the period. In some of these schemes, there was an increase in costs, and in other schemes there was a decrease in costs, but the increases and decreases largely balanced out.

There were three schemes that had cost differences of more than $0.5 million – Bundaberg (distribution), Burdekin-Haughton (distribution) and Eton. Sunwater made cost savings in each of these schemes. AtkinsRéalis found that Sunwater has good processes and strong management in place to efficiently manage electricity costs. We accept AtkinsRéalis's conclusion that Sunwater's actual electricity costs were prudent and efficient.[124]

We are satisfied that the definition of an electricity review event has been met, because the change in costs was driven by lower electricity costs, is sufficiently material, and is prudent and efficient. Our draft position is to make a cost adjustment for each of the three schemes, after subtracting the amounts that were returned to irrigation customers through the ECPT trial (see Table 17).

We adjusted forecast opex for each scheme by smoothing the cost adjustment over the price path period.

Table 17: Electricity review event cost adjustment – QCA draft position ($ million, nominal)[a]

Scheme	2020–21	2021–22	2022–23	2023–24[b]	2024–25[b]	Total[c]
Difference between actual and forecast electricity costs						
Bundaberg	(1.9)	(0.9)	(1.0)	(1.2)	(1.3)	**(6.4)**
Burdekin-Haughton	(1.2)	(3.2)	(1.8)	(1.6)	(1.7)	**(9.3)**
Eton bulk	–	(0.1)	(0.3)	(0.1)	(0.1)	**(0.6)**
Monies returned to irrigation customers during trial						
Bundaberg	1.9	0.7	0.7	0.0	0.0	**3.3**
Burdekin-Haughton	1.1	2.6	1.5	0.0	0.0	**5.3**
Eton bulk	–	–	–	–	–	**–**
Net difference						
Bundaberg	–	(0.2)	(0.2)	(1.2)	(1.3)	**(3.0)**
Burdekin-Haughton	–	(0.6)	(0.2)	(1.6)	(1.7)	**(4.1)**
Eton bulk	–	(0.1)	(0.3)	(0.1)	(0.1)	**(0.6)**
Total[c]	**(0.1)**	**(0.8)**	**(0.8)**	**(2.9)**	**(3.1)**	**(7.7)**

a We also made an adjustment for the revenue impact resulting from the difference between forecast and actual usage. b These are draft figures, which will be updated in our final report. c Totals may not add due to rounding.
Source: Sunwater, sub. 9, p. 39; Sunwater, response to RFI 159; QCA analysis.

[123] QFF (sub. 59, p. 3) and EICL (sub. 49, p. 12) also pointed out the trial did not cover all schemes or all years.
[124] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 147, 172–173.

5 Renewals expenditure

This chapter sets out our draft position on the prudent and efficient level of expenditure on renewing existing assets in regulated schemes,[125] for the purpose of determining an appropriate allowance for renewals expenditure over the price path period.[126] This includes all renewals expenditure for regulated schemes, including costs allocated to irrigation and non-irrigation customers.

After reviewing Sunwater's governance and procedures, we consider there is scope for Sunwater to make significant improvements in its long-term renewals planning (section 5.2.1). We also consider that Sunwater should review its expenditure classification approach for regulatory purposes to clearly delineate expenditure as opex or capex and report on any changes to this approach during the next price path period that have the effect of reclassifying expenditure for regulatory purposes (section 5.2.2). We have also identified potential for improvement in Sunwater's procurement processes (section 5.2.3).

Our review of Sunwater's historical renewals program (section 5.3) indicated that while Sunwater generally delivers projects in a prudent and efficient manner once they have been properly scoped, inadequacies in asset planning and management, also raised in the 2020 review, such as a lack of understanding of the condition of assets, means that there is room for efficiencies from better project scoping and costing. These findings have informed our view of potential efficiencies that Sunwater could achieve by developing a better understanding of the condition of its assets and improving its project scoping and cost estimation processes (section 5.4.3). We have not applied an efficiency target to the forecast renewals program, but we have outlined a range of measures that Sunwater could implement to realise potential efficiencies (Box 3). We expect Sunwater to provide a workable and quantified plan for realising potential efficiencies in the renewals program, in response to the draft report. In the absence of such a plan, we may apply an efficiency target to the program in our final report.

We have adjusted the forecast renewals program to reflect the findings of our sample assessment (section 5.4.1), adjusted the replacement timing for some programs to be more reflective of the condition and performance of Sunwater's assets (section 5.4.2) and reduced the proportion of the labour component of renewals expenditure that impacts the overhead and indirect costs applied (section 5.4.2).

Our draft position on the prudent and efficient level of renewals expenditure is in Table 18.

Table 18: QCA draft position – renewals expenditure ($ million, nominal)

	2019-20 to 2024-25[a]	2025-26 to 2028-29	2029-30 to 2057-58
Sunwater proposal	171.0	147.0	1,042.6
QCA adjustments	(14.6)	(30.1)	(233.6)
QCA draft position[b]	**156.3**	**116.9**	**808.9**

a Net of insurance recoveries received. b Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA analysis.

[125] We have reviewed the costs related to Sunwater's billing system renewal as part of our assessment of an appropriate allowance for opex (Chapter 4), consistent with its treatment of opex and capex related to other non-infrastructure assets.
[126] Sunwater has not proposed any capex associated with augmentation of existing assets or new assets, so our review in this chapter is only on renewals expenditure.

5.1 Our assessment approach

Our approach involved:

- reviewing Sunwater's supporting policies and procedures, including overarching governance, procurement, capital planning and asset management frameworks, to determine whether they are consistent with good practice and whether they provide appropriate controls and mitigate potential risks, and to assess the extent to which Sunwater had addressed issues raised in our 2020 review
- reviewing a sample of material renewals projects to test their prudency and efficiency and to assess the application of frameworks and governance processes in practice
- undertaking a detailed review of certain elements of Sunwater's renewals expenditure proposal to test for prudency and efficiency.

We engaged AtkinsRéalis to provide independent technical advice to support our review. AtkinsRéalis's review was informed by extensive information requests issued to Sunwater, as well as in-person interviews with key Sunwater staff. We have had regard to AtkinsRéalis's analysis and recommendations in developing prudent and efficient renewals estimates.

Prudency and efficiency

Our assessment involves assessing the need for the expenditure and the appropriateness of the timing, scope, standard and costs associated with the proposed projects.

We consider renewals and other capex is prudent if it can be justified by reference to an identified need or cost driver. That is, the renewals and other capex is necessary to:

- replace, refurbish or upgrade existing infrastructure or build new assets
- meet legal or regulatory obligations
- achieve an outcome that is explicitly endorsed or desired by customers (for example, agreed service levels)
- achieve broadly accepted changes in community expectations in relation to corporate responsibility (such as commitment to climate change mitigation).

In assessing prudency, we have considered whether the proposed expenditure timing is appropriate (based on lowest whole-of-life costs). We consider renewals and other capex is efficient if:

- the scope of the works represents the best means of achieving the desired outcomes after having regard to the options available, including non-network solutions, and substitution possibilities between opex and capex
- the standard of the works conforms to technical, design and construction requirements in legislation, industry and other standards, codes and manuals
- the cost of the defined scope and standard of works is consistent with conditions prevailing in the markets for engineering, equipment supply and construction.

Establishing the prudent and efficient level of renewals

For historical renewals expenditure, we have compared Sunwater's actual expenditure since the 2020 review with the approved expenditure in the 2020 review. Given that actual renewals expenditure since the 2020 review is higher than our recommended levels, we have assessed the reasons provided by Sunwater.

Consistent with previous reviews, our renewals forecast in the 2020 review did not make allowances for extreme weather events (e.g. flood damage) over the price path period. Renewals expenditure relating to extreme weather events should be separately identified in historical renewals including any related insurance revenues.

For forecast renewals expenditure, our assessment has been guided by whether the overall level of expenditure is appropriate and has involved:

- reviewing the proposed level of expenditure based on a sample of projects, taking into account the application of governance processes, capital planning and asset management frameworks and forecast methods
- developing an alternative estimate of an appropriate allowance based on the findings of the review
- assessing the proposed level of expenditure against our alternative estimate and
  - if the difference is not material, approving the proposed allowance (subject to any modelling adjustments, error correction and other updates that are reasonably required)
  - if the difference is material, rejecting the proposed allowance and substituting it with our proposed allowance.

Materiality

We have formed a view on prudency and efficiency based on the overall proposal before us. We will not generally adjust renewals forecasts where:

- the adjustment is not an identified error and is small and/or has only a small impact on the price target at the tariff group level
- the adjustment largely reflects a difference of opinion, rather than an identified error or invalid reasoning
- the proposal represents a genuine attempt at estimating efficient costs, and the business has been forthcoming with supporting justification and information
- there is evidence of proper consultation and agreement with customers.

5.2 Governance and procedures

When applied appropriately and consistently, sound corporate governance frameworks, along with best practice processes for procurement, capital planning, delivery and asset management, provide some confidence in the likelihood of prudent and efficient expenditure decisions.

Our 2020 review identified areas for improvement in Sunwater's long-term renewals planning. Specifically, we recommended that Sunwater improve its predictive maintenance and asset condition reporting arrangements to better inform the timing of asset replacement[127] as:

- asset life expectancies for long-term renewals did not appear to be based on the failure history for the relevant asset classes, with Sunwater using a single equation to project the timing of asset renewal for all its assets, resulting in overly conservative timing of long-term renewals[128]

[127] QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, p. 60.
[128] AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, chapter 7.

- the application of recommended replacement and refurbishment intervals was inconsistent and often did not match the asset life in any of the planning documents. In many cases, Sunwater had not specified required frequencies for refurbishment works. Further, in some instances, there appeared to be a lack of coordination of planned refurbishments with future replacements.[129]

In addition, we recommended that Sunwater review its cost estimation approach, ensure that asset values are based on modern equivalent replacement values where appropriate and develop transparent guidelines for options analyses[130] as:

- for most of the projects in the price path and beyond, there was limited supporting documentation for the costs of sampled projects. For replacement projects, there were difficulties in reconciling cost estimates for sampled projects with costs in the asset register. For refurbishment projects, inadequate documentation was provided to explain how refurbishment costs were established[131]
- in many instances, project development (including procurement and design) and implementation phase costs were divided into different projects, which made the overall project cost less transparent.[132] In addition, projects needed to be manually classified as replacement, refurbishment or inspection.[133]

Sunwater acknowledged these limitations in its pricing proposal, noting our recommendation from the 2020 review that it should improve its predictive maintenance and asset condition reporting (including developing asset-class-specific decay curves) to better inform the timing of asset replacement, and to cost estimation processes to ensure that asset replacement values represent current market replacement values.[134]

Sunwater said that it had addressed this recommendation by mitigating the risks we identified, including by commissioning a consultant to complete an independent prudency and efficiency review of Sunwater's initial renewals forecast over the 30-year planning period and adopting the consultant's recommendations in full; engaging with customers to test and propose the shift to the RAB approach; and initiating a project in 2023 to develop asset-class-specific decay curves to inform future forecast development.

Sunwater's consultant categorised Sunwater's renewals expenditure under a set of programs to enable a consolidated program-based view of forecast expenditure[135] and, after developing business cases for a sample of forecast historical projects, recommended cost and timing adjustments, to account for a systemic underestimation of remaining life and an overestimation of expenditure[136] amounting to a $17 million (17%) reduction in the program over the price path period and a $531 million (34%) reduction over the 2029–30 to 2057–58 forecast period.[137] Sunwater's consultant said that it had applied its sample adjustments to unsampled projects as these projects were likely to have limited documentation to justify the proposed cost and timing.[138]

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[129] AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, pp. 70–71.
[130] QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, p. 60.
[131] AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, p. 71.
[132] AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, p. 72.
[133] AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, p. 85.
[134] Sunwater, sub. 9, p. 87.
[135] This involved identifying key words in the expenditure description in Systems, Applications and Products (SAP), Sunwater's data management system. Expenditure that Sunwater's consultant was unable to categorise under any of these programs was treated as expenditure on individual projects and comprised 28% of forecast renewals expenditure over the 30-year planning period.
[136] Sunwater, unpublished information in support of sub. 9.
[137] Sunwater, sub. 9, p. 88.
[138] Sunwater, unpublished information in support of sub. 9.

We accept Sunwater's implementation of its consultant's recommended cost and timing adjustments to its renewals forecast over the 30-year period has somewhat mitigated the risk of an overly conservative renewals forecast over this period.

However, while this improves the renewals forecast that we are considering in this review process, it does not address the underlying issues with Sunwater's asset management and planning. We consider significant room for improvement in Sunwater's asset planning and management approach remains (section 5.2.1). For this review, we also assessed Sunwater's expenditure classification for regulatory purposes (section 5.2.2) given the implications for the ex post review of historical renewals under Sunwater's proposed RAB approach. We have also identified potential improvements in Sunwater's procurement processes (section 5.2.3).

5.2.1 Asset planning and management

Sunwater's renewals program consists of asset refurbishment, and enhancement or replacement works, with the works managed by project delivery teams embedded within regional operations groups.

The program is developed as a 5-year rolling plan, with a budget approved and new projects added to the plan at the beginning of each year.

Sunwater tends to have high confidence in the scope and cost of projects expected to occur in the planning year (i.e. the first year of the plan), as these projects tend to be informed by known asset condition and performance.[139] However, Sunwater continues to have relatively low confidence in the scope and cost of projects expected beyond the fifth year – that is, projects in the 30-year planning period for the renewals annuity.

This is also confirmed by the finding by Sunwater's consultant that Sunwater does very little detailed planning for projects outside the immediate time horizon and that while Sunwater has a lot of asset-specific data, this is not well integrated.[140] Sunwater's consultant stated that Sunwater should undertake a process to bundle together information specific to a given project using project IDs, noting that this would assist the planning and reporting on upcoming expenditures.[141]

We also note AtkinsRéalis's finding that Sunwater's current approach to long-term planning is well behind industry best practice of planning asset replacement based on condition and performance and that Sunwater can improve its asset information to inform the timing of renewals and avoid reactive responses, which are likely to result in additional costs and inefficiency.[142] Specifically, asset replacement values in SAP, Sunwater's data management system, continue to be largely outdated, with Sunwater only updating these values when it undertakes options analysis for larger projects. Further, confidence in the scope and definition of projects in the 30-year planning window continues to be limited given that asset replacement over this planning window is not informed by robust data on the likely condition and performance of the assets.

In summary, we found that Sunwater's asset planning and management remains lacking in the areas of:

- **project development and decision making** – due to continuing deficiencies in information management and inadequate understanding of the condition and performance of assets, we found that there are still issues relating to project development and decision-making. We

[139] Sunwater, sub. 16, p. 20.
[140] Sunwater, unpublished information in support of sub. 9.
[141] Sunwater, unpublished information in support of sub. 9.
[142] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 28.

consider that Sunwater can improve its understanding of its assets to make renewals planning (including the timing of renewals) more specific to the condition and performance of assets

- **information management** – we note that Sunwater was unable to provide us with a program-based view of its historical renewals program and that Sunwater's consultant had to manually manipulate data in SAP to develop a program-based view of the forecast renewals program; we suggest that Sunwater build on and embed the program-based view of the renewals program in SAP
- **cost estimation** – unit cost estimates in SAP remain outdated in many instances.

We consider there is room for efficiencies in the renewals program if Sunwater addresses our findings (see section 5.4.3) over the upcoming price path period. While we have not applied an efficiency target to the forecast renewals program, we expect Sunwater to provide a plan for achieving these efficiencies in response to the draft report. In the absence of such a plan, we may apply an efficiency target to the program in our final report.

5.2.2 Expenditure classification

Sunwater currently classifies expenditure as routine or non-routine and has historically recovered non-routine expenditure through the renewals annuity.[143] Sunwater said that its proposed non-routine expenditure includes:

- capex to ensure its assets continue to comply with regulatory and customer service standards and are compliant with new or emerging regulatory requirements
- periodic maintenance costs to ensure its assets continue to comply with regulatory and customer service standards.[144]

In the context of Sunwater's proposal to transition from a renewals annuity approach to a RAB approach, the capitalisation policy of Sunwater becomes substantially more important as the treatment of opex and capex will significantly impact on price targets in each scheme.

Sunwater's capitalisation policy leads to a large portion of renewals being expensed, which appears to differ from standard practice by other utilities in Australia.[145]

We note that, from a regulatory perspective, only lumpy expenditure with multi-year benefits would typically be capitalised and recovered through the annuity or, in the case of a RAB approach, a return on and of capital.

A transparent capitalisation policy is therefore important to clearly and consistently delineate between expenditure that is appropriate to be expensed and expenditure that is appropriate to be capitalised for regulatory purposes. As AtkinsRéalis also observed, other water utilities either have internal policies or rely on other (e.g. State) guidance to provide more detail on the interpretation of capitalisation criteria.[146]

Under the current regulatory framework where there is an ex post prudency and efficiency assessment for renewals expenditure, it is possible for expenditure that would generally be classified as opex for regulatory pricing purposes to be classified as non-routine in order to become eligible for ex post assessment.

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[143] Non-routine works generally comprises activities with a frequency of greater than 12 months and a cost that is greater than $10,000 per maintenance item.
[144] Sunwater, sub. 9, p. 83.
[145] AtkinsRéalis, *Expenditure review for rural irrigation price review 2025–29*, final report, June 2024, p. 34.
[146] AtkinsRéalis, *Expenditure review for rural irrigation price review 2025–29*, final report, June 2024, pp. 32–33.

We therefore consider that, regardless of whether the annuity approach is retained, it is important for Sunwater to establish a clear capitalisation guideline for regulatory pricing purposes. This guideline should be transparent and consistent across regulatory periods, and Sunwater should be required to provide details of any changes in its capitalisation approach for regulatory pricing purposes and any resulting reclassification of expenditure from opex to capex.

Box 2: Draft findings on Sunwater's expenditure classification

Sunwater should establish a capitalisation guideline for regulatory pricing purposes that:

- clearly defines the term 'future economic benefits' to ensure that expenditure which would typically be capitalised for regulatory pricing purposes is treated as capex (to allow Sunwater to move away from the current practice of delineating such expenditure as routine or non-routine)
- remains broadly consistent over time, with Sunwater providing details of any changes that result in a reclassification of expenditure between opex and capex.

5.2.3 Procurement processes

AtkinsRéalis's review of Sunwater's procurement process concluded that Sunwater's approach to procurement is at an early stage of maturity, with Sunwater considering opportunities on a case-by-case basis and determining a procurement approach based on factors like scale and complexity.[147]

AtkinsRéalis considered that Sunwater lacked a detailed and holistic approach to procurement planning, although Sunwater has started developing business unit procurement plans. A plan is currently being implemented for ICT and the intention is to extend this to operations and infrastructure.[148]

Taking these factors into account, we consider there is room for improvement and efficiencies in Sunwater's approach to procurement and suggest that Sunwater develop an organisation-wide procurement strategy, with a view to optimising efficiencies across the organisation.

5.3 Historical renewals expenditure

Sunwater said that its program of works at the time of the 2020 review was an estimate based on available risk and condition information at the time and that the actual work undertaken was based on available assessments of condition and risk during the price path.[149]

Sunwater said that over the period, it had to contend with the covid-19 pandemic, flooding and inflation that was materially higher than we forecast in the 2020 review and that this affected the cost of labour and materials required to deliver the program.[150]

Sunwater said that as a result, it overspent the recommended allowance from the 2020 review by $70.9 million (Table 19).

[147] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 35–36.
[148] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 35–36.
[149] Sunwater, sub. 9, p. 92.
[150] Sunwater, sub. 9, p. 92.

Table 19: Sunwater's actual renewals, 2019-20 to 2024-25 ($ million, nominal)

	2019-20[a]	2020-21	2021-22	2022-23	2023-24 (est.)	2024-25[a] (forecast)	Total
QCA 2020 review	24.3	25.1	12.0	12.2	10.3	16.2	**100.1**
Sunwater actual/budget[b]	23.1	30.7	27.9	18.2	36.1	35.0	**171.0**
Difference	**(1.2)**	**5.6**	**15.9**	**6.0**	**25.8**	**18.8**	**70.9**

a The previous price path period is from 2020–21 to 2023–24. However, we are required to examine actual renewals for the 6-year period in this table to allow the annuity balance for each scheme to be rolled forward from 1 July 2019 to 30 June 2025. b Net of insurance recoveries received.
Note: Totals may not add due to rounding.
Source: QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020; Sunwater, supporting information accompanying sub. 9; QCA analysis.

To assess the prudency and efficiency of the program, we reviewed a sample of projects completed in the current price path period (section 5.3.1) and assessed the drivers of the overspend in the wider historical program, relative to our recommendation from the 2020 review (section 5.3.2).

Our review indicated that while Sunwater generally delivers projects in a prudent and efficient manner once they have been properly scoped, inadequacies in asset planning and management, such as a lack of understanding of the condition of assets, means that there is room for efficiencies from better project scoping and costing.

For example, in some instances, we found that projects had to be reworked, or several variations were required, because Sunwater initially failed to appreciate the complexity of the task, due to inadequate information on asset condition.

Our draft position on the prudent and efficient level of historical renewals is $156.3 million (Table 20). We have adjusted Sunwater's proposed expenditure to incorporate insurance proceeds in 2019-20[151] and to reduce overheads in 2024–25 consistent with those applied to the wider forecast renewals program (section 5.4.2).

Table 20: QCA draft position for historical renewals ($ million, nominal)

	2019-20	2020-21	2021-22	2022-23	2023-24 (est.)	2024-25 (forecast)	Total
Sunwater proposal	23.1	30.7	27.9	18.2	36.1	35.0	**171.0**
QCA adjustments	(7.2)	–	–	–	–	(7.4)	**(14.6)**
QCA draft position	**15.9**	**30.7**	**27.9**	**18.2**	**36.1**	**27.6**	**156.3**

Notes: Net of insurance recoveries received. Totals may not add due to rounding.
Source: Sunwater, supporting information accompanying sub. 9; QCA analysis.

While we have not proposed any specific adjustments to the historical renewals program based on our historical sample assessment due to lack of materiality (sections 5.3.1 and 5.3.2), these findings have informed our view of potential efficiencies for Sunwater's forecast renewals program that it could achieve if it gained a better understanding of the condition of its assets and improved its project scoping and cost estimation processes (section 5.4.3).

[151] Sunwater, response to RFI 105.

5.3.1 Sample assessment

With the assistance of AtkinsRéalis, we selected a sample of historical projects (Table 21) for assessment (Table 22). The sample covers projects with significant spend, is representative of key asset categories and cost drivers and covers a varied geographical area in terms of schemes selected.

Table 21: Sampled historical projects ($ million, 2022–23 dollars)

Project	Description	Time frame	Value
Callide Dam gates vibration study	Refurbishing the spillway gates	2020–21 to 2022–23	14.8
Coolmunda Dam counterweights refurbishment	Addressing issues raised by a comprehensive risk assessment (CRA)	2019–20 to 2023-24	6.7
Silverleaf Weir upgrade	Addressing significant deterioration in the timber elements of the weir	2019–20 to 2020–21	4.4
Teemburra Dam CRA	Implementing recommendations from a CRA	2017–18 to 2021–22	4.2
Switchboard replacement – Owanyilla and Main Road pump stations	Addressing Arc Flash Incident Energy-related issues associated with the switchboards	2019–20 to 2024–25	4.0
Woongarra pump station upgrade	Addressing various faults with the electrical and ancillary systems of the station	2016–17 to 2020–21	2.1
Total sample			**36.1**
Total program			**146.7**
Sample as a proportion of program (%)			**25%**

Source: Sunwater, sub. 9; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 181.

Table 22: Assessment of sampled historical projects

Project	AtkinsRéalis's findings	Our assessment
Callide Dam gates vibration study	AtkinsRéalis considered the project was prudent (as it was driven by a regulatory requirement) and delivered efficiently but stated that with better initial scoping there could have been cost savings associated with avoidance of rework and contractor's mobilisation costs.	It is unclear the materiality of any savings that Sunwater would have made in this instance, with better initial scoping and we have therefore not made any adjustment to the project. However, Sunwater should address the shortcomings we have assessed in its asset planning and management (see section 5.2).
Coolmunda Dam counterweights refurbishment	AtkinsRéalis considered the project was prudent as it was driven by a regulatory requirement. AtkinsRéalis did not	We have assessed the project to be prudent and efficient given it has an appropriate driver and we have not

Project	AtkinsRéalis's findings	Our assessment
	recommend any adjustment to the project but stated that Sunwater's scoping and risk assessment should have recognised the complexity of the project and that Sunwater has significant room to improve its scoping and project delivery process to ensure efficient implementation of complex renewals projects.	identified any inefficiencies in the delivery of the project. However, we note that there is room for Sunwater to make improvements in its asset management and planning processes.
Silverleaf Weir upgrade	AtkinsRéalis determined the project was prudent and efficient as it was driven by the need to address the evidently poor condition of the weir and was appropriately scoped and costed.	We have assessed this project to be prudent and efficient given it has an appropriate driver and was scoped and delivered efficiently.
Teemburra Dam CRA	AtkinsRéalis considered the project was prudent as it was driven by a regulatory requirement. While AtkinsRéalis did not recommend any adjustment to this project, it stated that the project demonstrated the opportunity for Sunwater to improve its understanding of the condition of its assets, its project scoping and its project management, noting that Sunwater may have avoided some costs on the project if it had a better understanding of the condition of the asset.	It is unclear the materiality of any savings that Sunwater would have made in this instance, with better initial scoping and we have therefore not made any adjustment to the project. However, Sunwater should address the shortcomings we have assessed in its asset planning and management (see section 5.2).
Switchboard replacement – Owanyilla and Main Road pump stations	AtkinsRéalis considered the projects were prudent and efficient although it noted that the costs included in the 2020 review were based on inadequate cost projections and a lack of robust asset management planning. AtkinsRéalis considered that Sunwater has opportunities to improve its asset management planning and processes by seeking more current cost estimates and gaining a better understanding of the condition of its assets prior to internal project approvals.	We have assessed the project to be prudent and efficient given it has an appropriate driver and we have not identified any inefficiencies in the delivery of the project. However, we note that there is room for Sunwater to make improvements in its cost estimation process.
Woongarra pump station upgrade	AtkinsRéalis noted that the project was procured utilising open tendering to receive a competitive market price and considered it was prudent and efficient.	We have assessed this project to be prudent and efficient given it has an appropriate driver and was scoped and delivered efficiently.

Source: Sunwater, sub. 9; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 183–202; QCA analysis.

In summary, we found all the projects reviewed to be prudent. However, we found that, with better understanding of the condition and performance of its assets, and therefore better initial scoping, Sunwater may have been able to avoid some costs in the case of two of the projects reviewed. While we have not made project-specific adjustments, these findings have informed our view of the potential efficiencies that Sunwater could achieve over the coming price path.

5.3.2 Wider renewals program

We reviewed the drivers of the overspend in the historical renewals program relative to the 2020 review allowance.

While Sunwater was unable to present a breakdown of historical renewals by program, it provided us with business cases for a sample of 73 projects, representing the largest projects by value, and amounting to $90.8 million or 54% of the value of the historical renewals program.

To enable our assessment of the drivers of the overspend in the historical program, we reviewed 34 projects for which Sunwater had provided business cases[152], amounting to $79.3 million or 87% by value of these projects.

Of the 34 projects we reviewed, 22 were projects with an allowance from the 2020 review, with a value of $37.7 million.

In general, we found no evidence of imprudent or inefficient expenditure associated with the 12 projects with no allowance from the 2020 review.[153]

We found an overspend of $20.9 million, relative to the 2020 review allowance, for the projects with an allowance from the 2020 review, with the overspend primarily driven by scope increases relative to what was envisage at the time of the 2020 review.[154]

These findings reinforce our view that there is room for improvement in Sunwater's project scoping and cost estimation processes (see section 5.4.3).

While AtkinsRéalis recommended an adjustment of 1% to account for scope increases associated with a project to replace shutters on Ben Anderson Barrage, we have not applied this adjustment on account of materiality.

5.4 Forecast renewals expenditure

Our draft position on the prudent and efficient level of forecast renewals is $925.8 million (Table 23). We have made adjustments to reflect efficiencies we identified and to reduce the level of overheads applied.

Table 23: QCA draft position for forecast renewals ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	2029-58	Total
Sunwater proposal	36.5	42.9	40.4	27.2	1,042.6	1,189.5
QCA adjustments	(7.2)	(8.6)	(8.3)	(6.0)	(233.6)	(263.7)
QCA draft position	**29.3**	**34.3**	**32.0**	**21.2**	**808.9**	**925.8**

Note: Totals may not add due to rounding.
Source: Sunwater, supporting information accompanying sub. 9; QCA analysis.

[152] Six of these projects were also included in our detailed sample review.
[153] We note that three of these projects were included in our detailed sample review.
[154] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 203–204.

5.4.1 Sample assessment

With the assistance of AtkinsRéalis, we selected a sample of forecast programs (Table 24) for assessment (Table 25).[155]

The sample covers programs with significant spend and is representative of key asset categories and cost drivers.

Table 24: Sampled forecast renewals projects ($ million, 2023–24 dollars)

Project	Description	Price path period	2029–30 to 2057–58
Dam instrumentation program	Ensure dam safety and monitoring instrumentation is fit for purpose	23.8	0.2
Dam safety management program	Address regulatory requirements for dam safety	12.2	0.4
Metering renewal program	Renew metering assets	8.6	55.8
Electrical switchboard renewal program	Long-term program to renew switchboard assets	7.6	41.0
Channel relining and reshaping program	Long-term program to reline and reshape channels	4.0	20.4
Total sample		**56.2**	**117.8**
Total program		**137.9**	**589.0**
Sample as a proportion of total program (%)		**41%**	**20%**

Source: Sunwater, sub. 9; Sunwater, 10 WMS data Renewals Final Values; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 182; QCA analysis.

Some stakeholders also raised concerns about some of the programs in our sample, including the dam instrumentation program[156], the dam safety management program[157], the meter renewal program[158] and the switchboard and control renewal program.[159] Other stakeholders expressed concerns about the cost of SCADA[160] and the replacement and refurbishment costs for pump stations and pipeline valves.[161] While we have not made specific adjustments to these unsampled programs, we note that the relatively high costs for projects in these programs may be due to relatively high overhead and indirect costs allocated to renewals, as discussed in section 5.4.2.[162]

[155] The sample comprised 42% of forecast renewals in the price path period (excluding Sunwater's proposed costs for its billing system, which is covered in Chapter 4) and 20% beyond the price path period.
[156] BRIA Irrigators, sub. 42, p. 15; Central Highlands Cotton Growers and Irrigators Association (CHCGIA), sub. 47, p. 2; Eton Irrigation Cooperative Ltd (EICL), sub. 49, p. 10; Mallawa Irrigation, sub. 55, p. 1; Nogoa-Mackenzie IAC, sub. 57, p. 1.
[157] Cotton Australia, sub. 48, p. 5.
[158] CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 5; Nogoa-Mackenzie IAC, sub. 57, p. 1.
[159] EICL, sub. 49, pp. 10–11.
[160] Mallawa Irrigation, sub. 55, p. 1.
[161] Cotton Australia, sub. 48, p. 5; B Nicholson, sub. 56, pp. 1–2.
[162] For example, Cotton Australia was concerned about the proposal in the Dawson Valley scheme to spend $1.2 million on a dam safety review for the Moura Off-Stream Storage (Cotton Australia, sub. 48, p. 5). This comprises $750,000 in dam safety management costs with overhead and indirect cost uplift to this pre-overhead renewals expenditure of over 54% to derive the total of $1.2 million, with the overall uplift partly driven by the assumed labour cost component (section 5.4.2).

Table 25: QCA-proposed adjustments to sampled forecast renewals projects

Project	AtkinsRéalis's findings	QCA assessment
Dam instrumentation program	AtkinsRéalis considered the program is prudent as it is driven by a regulatory requirement and will reduce safety risks. AtkinsRéalis considered the project is efficient citing evidence of a methodical cost estimate that demonstrates a thorough understanding of project requirements.	We have assessed the program to be prudent and efficient given it has an appropriate driver and has been appropriately scoped and costed.
Dam safety management program	AtkinsRéalis found the program to be prudent and efficient but recommended an adjustment to address duplication with the dam instrumentation program. This results in a $0.5 million reduction to the program.	We have assessed the program to be prudent and efficient but adjusted it for the duplication identified with the dam instrumentation program in developing our alternative estimate.
Metering renewal program	AtkinsRéalis considered that the actual average life of metering assets was likely to better reflect the failure rate and therefore recommended estimating the replacement rate based on the actual average age rather than assumed asset life. This results in a $19.5 million reduction to the program.	Given the issues we have identified with Sunwater's inadequate understanding of the condition and performance of its assets, we consider it is appropriate to adjust the replacement timing for this program and have applied this adjustment in developing our alternative estimate.
Electrical switchboard renewal program	While AtkinsRéalis identified inadequacies in the planning for switchboard renewals, including the estimation of costs beyond the initial 5-year planning window, it did not recommend a program-specific adjustment as it considered Sunwater might require additional expenditure to address issues identified.	We have assessed the program to be prudent given it has an appropriate driver. However, this project demonstrates the need for Sunwater to improve its long-term planning and cost estimating, including by developing an asset health reporting system to optimise renewals activities.
Channel relining and reshaping program	While noting a gap in Sunwater's understanding of the condition of the channels, AtkinsRéalis considered the program to be prudent and efficient.	We have assessed the program to be prudent given it has an appropriate driver. However, this project emphasises the need for Sunwater to better understand the condition of, and risk associated with, its assets.

Source: Sunwater, sub. 9; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 209–223; QCA analysis.

In addition to undertaking our sample review, we have considered stakeholder concerns on specific projects.

Stakeholders in the Burdekin-Haughton scheme were concerned that the rising groundwater mitigation project in the scheme, including a proposal to de-water the aquifer, would end up with the implementation of a high-cost strategy, without adequate consultation with, and agreement from, customers.[163]

However, Sunwater has explained that the renewals forecast for Burdekin-Haughton scheme does not include expenditure for the investigations and infrastructure works phases of this project and that it is working with the Department of Regional Development, Manufacturing, and Water and

[163] BRIA Irrigators, sub. 42, p. 15.

irrigators to explore a range of potential solutions to the issue of rising groundwater in parts of the Burdekin-Haughton scheme.[164] Sunwater said that it was unable to comment as to whether the project would result in future costs to be recovered through irrigation prices but that it understood that a regulatory driver in the form of a compliance obligation or customer support would be required if it were to seek to recover any future costs.[165]

Stakeholders in the Nogoa-Mackenzie scheme queried whether there is ongoing expenditure on Bedford Weir reconstruction and the implications for the reliability of water access entitlements.[166]

The failure and subsequent removal of the Bedford Weir inflatable rubber dam resulted in a reduction in the storage capacity of Bedford Weir. Sunwater explained that it was granted funding[167] to complete an options analysis in relation to improved water security for the Nogoa-Mackenzie scheme, which indicated that the reduction in storage capacity at Bedford Weir resulted in a 1% reduction in the long-term modelled medium priority monthly water sharing index (WSI) from 84% to 83%.[168] However, this still exceeds the target performance objective for the WSI of 82%, under the Water Plan.

Another stakeholder queried why irrigation customers should bear the cost of the removal of inflatable rubber dams.[169] We note that this is a regulatory obligation that Sunwater must meet in providing irrigation services and that it is therefore appropriate to recover the cost from customers.

5.4.2 Wider renewals program

We also undertook a detailed review of certain elements of Sunwater's renewals expenditure proposal, including whether its asset replacement and refurbishment dates were driven by asset condition and performance, and the appropriate allocation of overhead and indirect costs to renewals.

Asset replacement and refurbishment timing

Sunwater's forecast renewals program is largely driven by its asset life assumption to estimate the future timing of replacement and refurbishments. In the 2020 review, we recommended that Sunwater should improve its predictive maintenance and asset condition reporting (including the development of asset-specific decay curves) to better inform the timing of asset replacement. To address this in the 2020 review, our recommended renewals forecast incorporated a uniform 10% increase in the life of all asset replacements based on advice from our consultants.[170]

For this review, Sunwater said in its proposal that it had initiated a project in 2023 to develop asset class-specific decay curves to inform future forecast development.[171] To assess whether Sunwater's renewals program might include replacement projects earlier than required, AtkinsRéalis looked at current asset life assumptions against actual asset age.[172] AtkinsRéalis found that assets with an

[164] Sunwater, response to RFI 153.
[165] Sunwater, response to RFI 153.
[166] Nogoa-Mackenzie IAC, sub. 57.
[167] Sunwater was granted funding of $1.7 million and spent $2.3 million on the study. However, Sunwater has not sought to recover the extra $0.6 million from customers.
[168] Sunwater, response to RFI 154.
[169] B Nicholson, sub. 56, p. 1.
[170] QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, pp. 68–72.
[171] Sunwater, sub. 9, p. 89.
[172] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 223–225.

assigned asset life of less than 30 years had an average actual age that tended to exceed the assumed asset life.[173]

This finding is consistent with the issues we have identified with Sunwater's inadequate understanding of the condition and performance of its assets. We also note that Sunwater appears to assume a replacement frequency that does not take historical replacement rates into account and tends to be sooner than the assigned asset life in many instances. As such, we have deferred the timing of replacement for assets with an assumed replacement frequency of 20 years by 6 years, in developing our alternative estimate.[174]

We consider that this is a conservative adjustment, reflecting that we have only made this adjustment to replacements and not to refurbishments or studies with a 20-year frequency. In addition, taking into account advice from AtkinsRéalis, we have not applied this adjustment to the switchboard and control renewal program and the SCADA renewal program.[175]

Allocation of overhead and indirect costs to renewals expenditure

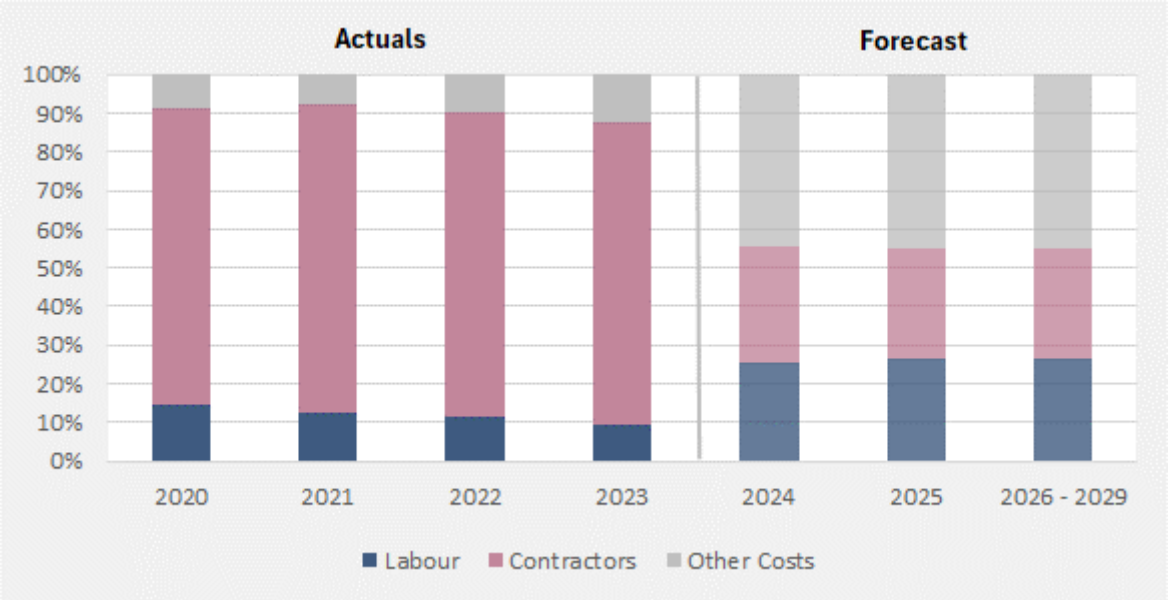
As discussed in Chapter 4, Sunwater's current cost allocation approach allocates overhead and indirect costs to opex and renewals using direct labour as the main allocator. It is therefore important to ensure that the labour component of forecast renewals expenditure is accurately forecast.

AtkinsRéalis noted that Sunwater applies a uniform cost allocation approach across all forecast years in disaggregating its forecast (pre-overhead) unit costs for each renewals project between labour, contractor, materials and plant costs. This results in labour costs representing 26% of the total pre-overhead renewals expenditure for each project from 2024–25 to 2057–58.[176] Sunwater has then applied recovery rates for overhead and indirect costs to direct labour costs derived on this basis.[177]

However, over the period 2019–20 to 2022–23, direct labour costs comprised between 10% and 15% of pre-overhead renewals expenditure each year, with an overall average of 12% over this period. As such, AtkinsRéalis recommended that this overall average was a more appropriate proportion to derive the direct labour costs used to apportion overhead recovery rates.[178]

[173] For example, AtkinsRéalis found that 24% of Sunwater's assets have been assigned an asset life of 20 years and that the actual average age of these assets is around 26 years. See AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 223–225.
[174] This excludes the meter renewal program for which we have separately assessed an appropriate replacement timing in section 5.4.1.
[175] AtkinsRéalis said that the 20-year replacement frequency was appropriate for the switchboard and renewal program for safety reasons, and that this frequency was also applicable for the SCADA renewal program for improved efficiencies.
[176] Sunwater has explained that this percentage is based on historical labour costs for the renewal program.
[177] This, for example, combined with an overhead and indirect cost recovery rate of 2.09 (Sunwater, sub. 9, p. 82), would result in an overall uplift to pre-overhead renewals expenditure of over 54% (i.e. 2.09 multiplied by 26%).
[178] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 225–227.

Figure 15: Percentage of labour costs assigned to renewals projects (%)



Source: Sunwater, response to RFI 52; Sunwater, 10 WMS data Renewals Final Values; QCA analysis.

We note that the assumed labour proportion of forecast renewals expenditure of 26% is also significantly higher than the corresponding proportion of 15% used in our recommended renewals expenditure for each year of the previous price path period in the 2020 review. We consider that this further demonstrates issues with Sunwater's approach to cost estimation as discussed in section 5.2.1 and have therefore made a reduction in the wider program to address this issue, in developing our alternative estimate.

This results in a reduction of $223.7 million (or 18.8%) in the total forecast renewals program.

5.4.3 Potential efficiencies from improvements in asset planning and management

Given the findings from our review of Sunwater's governance and procedures and its renewals program, we consider there is significant room for efficiencies from improvements to asset planning and management, noting that we have previously recommended improvements in this area.

Based on advice from AtkinsRéalis,[179] we consider there is room for Sunwater to achieve efficiencies from better asset planning and management (Box 3).

[179] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, p. 29.

Box 3: Draft findings on Sunwater's asset planning and management

We consider Sunwater should implement the following actions this price path period:

- Efficiency plan:
  - Develop an efficiency plan that sets out a pathway to revealing efficient costs including an ongoing process to identify and implement spend to save investment initiatives and efficient working practice changes.
- Asset condition and risk understanding:
  - Develop an asset health reporting system to optimise maintenance and renewals activities. This system can be used to communicate asset health trends and underlying risks to senior management and stakeholders.
  - Improve understanding of the condition and associated risks of assets by undertaking more routine asset condition assessments and integrating these assessments into the asset health reporting system.
- Evidence-based asset lives:
  - Develop evidence-based asset lives to strengthen confidence in asset longevity.
  - Create specific asset plans, based on performance and condition, informed by historical renewals.
- Cost estimation and control:
  - Develop strong cost estimation tools and methods with a feedback mechanism to monitor performance of cost estimates, and find ways to improve them.
  - Conduct active and ongoing re-prioritisation of renewals works at a portfolio level to maximise the benefits within the available budget.
  - Develop an integrated dataset which brings together proposed renewals and asset lives in a consistent manner.

AtkinsRéalis recommended efficiency targets from:

- greater focus on value engineering (5%) – there was limited evidence of value engineering in the projects reviewed, with many of these projects showing significant scope creep
- procurement savings (3%) – Sunwater's procurement approach was at an early stage of maturity
- improvements in program development and decision making (2%) – with a better understanding of asset condition, it will be able to better reprioritise and scope projects.[180]

AtkinsRéalis said 5% was the lower end of estimated savings from industry studies, that could be achieved by implementing good practice value engineering. AtkinsRéalis's recommended savings from procurement and program development and decision making was also based on estimates from the relevant literature although AtkinsRéalis applied an element of professional judgement in the latter case.

While we have not applied an efficiency target to the forecast renewals program, we expect Sunwater to provide a workable and quantified plan for realising potential efficiencies in the

[180] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, June 2024, pp. 231–233.

renewals program, in response to the draft report. In the absence of such a plan, we may apply an efficiency target to the program in our final report.

5.4.4 Summary of proposed adjustments

Based on our review, we have developed an alternative estimate of the forecast renewals program (Table 26). We have adopted this estimate as we consider it is materially different from Sunwater's proposal.

Table 26: QCA-proposed adjustments to the forecast renewals program ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	2029-58	Total
Sunwater proposal	**36.5**	**42.9**	**40.4**	**27.2**	**1,042.6**	**1,189.5**
Sample specific adjustments	(0.4)	(0.6)	(1.0)	(0.5)	(17.7)	**(20.0)**
Adjustment to non-sampled projects	–	–	–	–	(8.3)	**(8.3)**
Total efficiency adjustment	**(0.4)**	**(0.6)**	**(1.0)**	**(0.5)**	**(26.0)**	**(28.4)**
Adjustment to allocated overheads	(6.7)	(7.9)	(7.3)	(5.2)	(196.7)	**(223.7)**
Other adjustments	(0.1)	(0.2)	–	(0.4)	(11.0)	**(11.6)**
Total adjustments	**(7.2)**	**(8.6)**	**(8.3)**	**(6.0)**	**(233.6)**	**(263.7)**
QCA alternative estimate	**29.3**	**34.3**	**32.0**	**21.2**	**808.9**	**925.8**

Notes: Other adjustments incorporate the use of our updated overhead and indirect cost uplift factors (discussed in section 4.2.2) and updates to consumer price index (CPI) inflation forecasts based on the latest information. Totals may not add due to rounding.
Source: Sunwater, sub. 9; AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 236; QCA analysis.

5.4.5 Ex post review process

Given issues with asset planning and management that have persisted since the 2012 and 2020 reviews, and despite our recommendations for improved renewals planning and reporting, it is disappointing that Sunwater has been unwilling or able to provide a program level view of historic renewals expenditure. This makes it challenging to assess the drivers of variance between outturn expenditure and the ex ante regulatory allowance.

On its own terms, a program-based view of expenditure is part of good practice asset planning and management as it enables a holistic approach to planning and reporting on future expenditure requirements. It will also enable Sunwater to track its progress in delivering on its proposed program and communicate any consequential changes to customers in a transparent manner.

For example, it may be possible to discuss with customers, through the Service and Performance Plan process, the desirability of deferring some projects in the short-term, to accommodate emerging projects with higher priority and thereby avoid a significant increase in the program.

A program-based view would also allow Sunwater to demonstrate more effectively the drivers of any variance between outturn expenditure and the regulatory allowance and explain what measures it has taken to minimise any overspend in the regulatory allowance and to ensure that outturn expenditure is prudent and efficient.

Therefore, in order to strengthen the effectiveness of the ex post review process, we consider that Sunwater should be required to report on:

- outturn performance against the renewals program categories in its forecast renewals program over the price path period, including providing an explanation of any variation between forecast and outturn expenditure
- any deferral of expenditure during the price path period and the reason for deferral.

Box 4: Draft findings on information required to support an ex post review

For future reviews, to support the ex post review of historical renewals expenditure Sunwater should:

- review its coding of renewals and other capex to allow clearer identification and understanding of drivers (e.g. maintenance, compliance and service standards) and types of investment (e.g. refurbishment, replacement and inspections) to better understand the drivers for variances between actual and allowed expenditure
- classify actual expenditure by program over the price path period, using the same program categories as for forecast renewals over this period
- clearly explain the drivers of any variance between actual and approved expenditure to stakeholders and in its pricing proposal
- clearly identify any projects that were deferred or brought forward during the price path period.

6 Inflation and the rate of return

We have reviewed the appropriateness of Sunwater's approaches to estimating forecast inflation and setting the weighted average cost of capital (WACC), taking into account the consistency of Sunwater's approach with our established methodologies.

6.1 Estimating annual forecast inflation

Sunwater proposed to forecast inflation using a broadly similar approach as our 2021 inflation forecasting position paper (the 2021 inflation report).[181]

Sunwater's proposal used short-term Reserve Bank of Australia (RBA) forecasts of consumer price index (CPI) inflation for 2023–24 and 2024–25,[182] and then derived annual forecasts using a linear glide path from the 2024–25 forecast to a rules-based anchor-point forecast of 2.75% in 2027–28.[183] Sunwater used the midpoint of the RBA's target range (2.5%) as the forecast for 2028–29 onwards.

While Sunwater's proposal is consistent with our approach, we note that RBA short-term forecasts are now available to 2025–26 and have therefore updated Sunwater's annual forecast CPI inflation using the latest RBA data.[184] Further, as the short-term forecast for the second year ahead (2025–26) is now within the RBA's target range, we have applied an anchor point of 2.5% for the fifth year ahead (2028–29).[185]

Table 27 compares the inflation forecasts in Sunwater's proposal with our updated forecasts.

Table 27: QCA draft position on CPI inflation forecasts (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater's proposal	3.60	3.10	2.98	2.87	2.75	2.50
QCA draft position	3.80	3.20	2.60	2.57	2.53	2.50

Source: Sunwater, sub. 9, p. 36; RBA, *Statement on Monetary Policy*, May 2024, p. 51; QCA analysis.

6.2 Applying forecast inflation

Sunwater's proposal applies forecast inflation in the following calculations:

- Forecasting the indexation of the regulatory asset base (RAB) and capital revenue deduction over the price path period under Sunwater's proposed RAB approach.
- Indexing the annuity in calculating prices under the existing renewals annuity approach.
- Escalating baseline opex and step changes over the price path period with input-specific inflation measures.

[181] QCA, *Inflation forecasting*, final position paper, October 2021.
[182] At the time of Sunwater's proposal, RBA short-term forecasts of CPI were only available for 2023–24 and 2024–25.
[183] Sunwater set the anchor point at 2.75%, which was consistent with our rules-based approach, as the RBA's short-term forecast for 2024–25 was greater than or equal to 3%.
[184] RBA, *Statement on Monetary Policy*, May 2024, p. 51.
[185] We plan to use the RBA's December 2026 ending forecast in updating the inflation forecast in our final report, as foreshadowed in the 2021 inflation report (see QCA, *Inflation forecasting*, final position paper, October 2021, p. 41).

- Smoothing unit costs to derive price targets and draft prices over the price path period for each tariff group.

We have assessed Sunwater's proposed inflation measure for each of these purposes.

Stakeholders voiced general concerns regarding Sunwater's escalation factors across various input categories.[186] These concerns were about the underlying drivers of cost increases, rather than the forecasting methodology. These matters are addressed within the respective input cost category sections in Chapter 4.

6.2.1 Renewals expenditure allowance

We have accepted Sunwater's proposed inflation measures for the renewals expenditure allowance under the annuity and RAB approaches, subject to updating for the latest annual CPI inflation forecast data (Table 28).

Table 28: QCA's draft position on inflation measures (%)

Use	Basis for inflation factor	Sunwater proposal	QCA draft position
Renewals expenditure allowance			
RAB approach	Geometric mean of the annual CPI inflation forecasts over the 4-year price path period for consistency with the 2021 inflation report	2.77	2.55
Annuity approach	Geometric mean of the annual CPI inflation forecasts over a 10-year period for consistency with the 2021 inflation report	2.60	2.52

Source: Sunwater, sub. 9, p. 38; QCA analysis.

6.2.2 Escalation of opex

Labour

Sunwater's proposed approach to labour cost escalation uses:

- the uplift agreed in the most recent Enterprise Agreement (EA)[187], applied as 4.5% in 2023–24 and 3.5% in 2024–25
- the Queensland Treasury wage price index (WPI) forecast of 3.5% applied for 2025–26[188]
- a linear glide path from 2025–26 to the 2027–28 level applied in 2026–27 (i.e. the average of 2025–26 and 2027–28)
- a 10-year simple average of the Australian Bureau of Statistics (ABS) WPI all sectors for Queensland applied in 2027–28 and 2028–29.[189]

We consider Sunwater's approach to projecting escalation for 2023–24, 2024–25 and 2025–26 is reasonable. The 2023–24 and 2024–25 increases are based on the increases agreed in the EA and are broadly consistent with the December 2023 Queensland Treasury WPI forecasts of 4.75% for

[186] Central Highlands Cotton Growers and Irrigators Association (CHCGIA), sub. 47, pp. 1-2; Cotton Australia, sub. 48, p. 2; Fairbairn Irrigation Network, sub. 50, pp. 4-6; Eton Irrigation Cooperative Ltd (EICL), sub. 49, pp. 2-9; Nogoa-Mackenzie IAC, sub. 57, p. 1; BRIA Irrigators, sub. 42, pp.11-14.
[187] Sunwater's EA 2022–2025 sets out increases to the fortnightly base rates (and hourly rates) for relevant Sunwater employees. The increases are structured as follows: a 4.5% rise effective from 1 July 2022, and again on 1 July 2023, followed by a 3.5% increase starting 1 July 2024.
[188] Queensland Government, *Budget Strategy and Outlook - State Budget 2023-24*, June 2023, p. 32.
[189] Sunwater, sub. 9, p. 38.

2023–24 and 3.5% for 2024–25.[190] Further, any banding increases[191] in 2023–24 are counterbalanced by recruitment and the productivity benefits as outlined in the EA.

The forecast for 2025–26 is based on the WPI projections in the Queensland State Budget 2023–24.[192] Since this forecast is based on the latest available estimates of wage trends and remains consistent with our 2021 inflation report approach, we do not propose any adjustment. Our final report will update this using the latest Queensland Treasury forecasts.

We have utilised the most recent State Budget WPI forecast of 3.5% for 2026–27,[193] instead of Sunwater's linear glide path, as we consider the WPI forecast to be more reliable.

We have also updated our assessment of the long-term historical Queensland WPI with the inclusion of the 2022–23 actual and 2023–24 forecast WPI resulting in a rate of 2.49% for the remaining period, consistent with our stated approach in the 2021 inflation report.

Table 29: QCA's draft position on labour cost escalation rates (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater's proposal	4.50	3.50	3.50	2.98	2.47	2.47
QCA draft position	4.50	3.50	3.50	3.50	2.49	2.49

Source: Sunwater, sub. 9, p. 38; QCA analysis.

Insurance

Sunwater's proposed approach to forecasting insurance involves applying projections provided by its broker, for 2023–24 and 2024–25, followed by using annual CPI inflation forecasts for the remaining years in the price path period.

Several stakeholders raised concerns about Sunwater's proposed insurance escalation rates, specifically questioning the 21% increase in 2023–24 and subsequent increases.[194] Other stakeholders focused on Sunwater's procurement procedures leading to a high base year estimate. Such concerns are evaluated in Chapter 4.

Sunwater said that premiums are based on two factors: the value of the assets being insured (the declared asset value, or DAV), and the premium applied to the policy type.[195] Sunwater said that insurers generally accept asset revaluations every five years and the use of the Australian Bureau of Statistics' (ABS) Queensland Roads and Bridges index for Sunwater to escalate assets between years.

For 2023–24, Sunwater assumed an 11% increase in the value of its insured assets and a 10% increase in premiums across policy types, resulting in a total increase of 21%. Since its proposal, Sunwater informed us that the actual premiums for 2023–24 were notably lower than Sunwater's expectations, with the total increase for regulated schemes being 10.9%.[196]

For 2024–25, Sunwater assumed no increase in the value of its insured assets but a 10.73% increase in premiums. Since Sunwater made its proposal, the ABS has released the Queensland Roads and

[190] Queensland Government, *Queensland budget update 2023-24*, December 2023, p. 8.
[191] That is, increases in addition to inflation due to progression up the salary bands.
[192] Queensland Government, *Budget Strategy and Outlook - State Budget 2023-24*, June 2023, p. 4.
[193] Queensland Government, *Budget Strategy and Outlook - State Budget 2023-24*, June 2023, p. 4.
[194] CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 6; Fairbairn Irrigation Network, sub. 50, p. 6.
[195] Sunwater, sub. 12, p. 10.
[196] Sunwater, response to RFI 35; Sunwater, response to RFI 108.

Bridges index for the year ended March 2024[197], and Sunwater has advised us that its insurance broker's updated advice on 2024–25 premiums is at a lower rate than previously anticipated.[198] This results in a revised escalation rate of 8.3%. We will review the actual escalation rate for the final report.

For the remaining years of the price path, we have updated Sunwater's annual CPI forecasts with the latest data, as outlined in section 6.1.

Table 30: QCA's draft position on insurance escalation rates (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater's proposal	21.00	10.73	2.98	2.87	2.75	2.50
QCA draft position	10.89	8.30	2.60	2.57	2.53	2.50

Source: Sunwater, sub. 9, p. 38; Sunwater, response to RFIs 35 and 36; ABS, *Producer Price Indexes, Australia*, March 2024; RBA, *Statement on Monetary Policy*, May 2024; QCA analysis.

Electricity

Sunwater's proposed approach uses contracted rates where available, with annual CPI inflation used thereafter.[199] This approach calculates the electricity cost escalation factors for each scheme by weighting the electricity prices for each connection site associated with a scheme by the electricity quantity applicable to each tariff charging parameter:

- For simple flat tariff structures, the quantity weighting is generally annual electricity consumption.
- For more complicated demand tariff structures, a broader range of weighting factors (eg. kW demand, Time of Use energy usage) are used in the calculation of the cost escalation factor.[200]

For most bulk schemes, electricity costs are not a significant component of overall allowable costs. The escalation rate for most bulk schemes is based on changes in regulated prices for tariff 20, followed by annual CPI inflation forecasts (section 6.1).

Table 31: QCA's draft position on electricity escalation rates for schemes with regulated tariff 20 (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater's proposal	26.80	3.10	2.98	2.87	2.75	2.50
QCA draft position	26.80	(1.10)	2.60	2.57	2.53	2.50

Source: Sunwater, sub. 15, p. 12; QCA, *Regulated electricity prices in regional Queensland for 2024–25*, final determination, June 2024, p. 8; QCA analysis.

We note that two further schemes not covered under the whole-of-government agreement face slightly different escalation rates for 2023–24 and 2024–25, as they have sites with multiple regulated tariffs.[201] For the remaining years, the escalation rates reflect annual CPI inflation forecasts.

[197] ABS, *Producer Price Indexes, Australia*, March 2024, Table 17: Output of the Construction industries, subdivision and class index numbers, original, cat. no. 6427.0, series A2333727L.
[198] Sunwater, response to RFI 36.
[199] Sunwater, sub. 12, p. 4.
[200] Sunwater, response to RFI 136.
[201] Sunwater, response to RFI 136.

Table 32: QCA draft position on electricity escalation rates for other schemes with only regulated tariffs (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
St George	25.36	(0.73)	2.98	2.87	2.75	2.50
Upper Burnett	26.84	(0.97)	2.60	2.57	2.53	2.50

Source: Sunwater, sub. 15, p. 12; QCA, *Regulated electricity prices in regional Queensland for 2024–25*, final determination, June 2024, p. 8; QCA analysis.

Sunwater said that it actively manages its electricity costs by annually reviewing that its sites are assigned to the least cost network and regulated retail tariffs based on historical electricity consumption and demand characteristics.[202] Sunwater has recently completed a review of its retail electricity tariff arrangements and identified opportunities to re-assign some of its connection sites to different electricity tariffs with forecast cost savings.[203]

This has reduced its proposed escalators in seven of the remaining nine schemes which are modelled using monthly data with contestable and regulated prices. We have accepted these updated escalators as they result in electricity cost savings over the remainder of the price path period. These updated escalators are summarised in Table 33.

Table 33: QCA draft position on electricity escalation rates for other schemes (%)

Scheme	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Barker Barambah (Redgate re-lift)	2.81	2.75	2.77	2.78	2.81	2.50
Bowen Broken	16.00	3.10	2.98	2.87	2.75	2.50
Bundaberg distribution	0.69	2.49	2.14	2.09	2.32	2.50
Burdekin-Haughton distribution	2.29	2.02	2.08	1.84	2.08	2.50
Dawson Valley	0.34	2.96	2.97	2.97	2.97	2.50
Eton	2.05	2.61	2.58	2.55	2.88	2.50
Lower Mary distribution	–	2.27	2.51	2.45	2.80	2.50
Mareeba-Dimbulah distribution (re-lift)	–	1.55	2.73	2.46	2.59	2.50
Upper Condamine	16.10	2.70	3.00	2.90	3.10	2.50

Source: Sunwater, sub. 15, p. 12; Sunwater, response to RFIs 41 and 131; QCA analysis.

We have reviewed the modelling undertaken by Sunwater and find its approach reasonable. Given that the whole-of-government agreement ends in mid-2028–29, Sunwater's assumption of a 2.5% escalation rate for that year, aligned with annual CPI inflation forecasts, is reasonable.

Contracted services, materials and other opex

Sunwater has proposed using annual CPI inflation forecasts as the escalation factor for contracted services, materials and other opex. We accept this measure, as the underlying cost drivers are not materially different from CPI inflation.

[202] Sunwater, sub. 15, p. 3.
[203] Sunwater, response to RFIs 41 and 132.

Overhead and indirect costs

Sunwater has proposed a 50:50 weighting of labour and annual CPI inflation for escalating overhead and indirect costs, consistent with the approach we accepted in the 2020 review.

Table 34: Sunwater's proposed overhead and indirect costs escalation rates (%)

Cost category	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Labour	4.50	3.50	3.50	2.98	2.47	2.47
Non-labour (CPI)	3.60	3.10	2.98	2.85	2.75	2.50
Overhead and indirect costs (50:50)	4.05	3.30	3.24	2.93	2.61	2.49

Source: Sunwater, sub. 9, p. 38.

We assessed Sunwater's overhead and indirect costs and consider that 50% is a reasonable estimate of the labour proportion of these costs. However, we have updated the figures to reflect the labour and inflation escalation rates discussed above.

Our proposed cost escalation factors for overhead and indirect costs are summarised below.

Table 35: QCA draft position on overhead and indirect costs escalation rates (%)

Cost category	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Labour	4.50	3.50	3.50	3.50	2.49	2.49
Non-labour (CPI)	3.80	3.20	2.60	2.57	2.53	2.50
Overhead and indirect costs (50:50)	4.15	3.35	3.05	3.03	2.51	2.50

6.2.3 Smoothing unit costs

Sunwater has proposed using a geometric mean of the annual CPI inflation forecasts over the four-year price path period to smooth unit costs, consistent with the 2021 inflation report.

We accept this measure; however, we have updated inflation forecasts (section 6.1).

6.3 Weighted average cost of capital

The weighted average cost of capital (WACC), or rate of return, is an estimate of the rate of return on investment that compensates the benchmark efficient firm for the regulatory and commercial risks associated with providing access to the service. For this review, the WACC is used in the building block methodology as an input to assess total costs. Sunwater proposed a post-tax nominal WACC of 6.56%.[204]

[204] Sunwater, sub. 9, p. 117.

Table 36: Sunwater's proposed WACC parameters

Parameter	Sunwater's proposal
Risk-free rate	4.27%
Market risk premium	6.5%
Equity beta	0.725
Cost of equity	8.98%
Credit rating	BBB
Debt raising costs	0.1%
Cost of debt	4.95%
Capital structure	60% debt
Gamma	0.484
Nominal post-tax WACC	**6.56%**

Source: Sunwater sub. 9, p. 117.

6.3.1 General assessment approach

In assessing Sunwater's proposed WACC, we have considered the overarching commercial and regulatory risks it faces. Subsequently we have reviewed Sunwater's key WACC parameters against the methods presented in our report on approaches to determining reasonable rates of returns (2024 rate of return report).[205] We also conducted a normalisation exercise, comparing Sunwater's WACC proposal against other regulatory decisions for other relevant businesses.

A number of stakeholders commented that since Sunwater is a government business that sources debt from Queensland Treasury Corporation (QTC), then the WACC should reflect the borrowing rate from QTC.[206] Eton Irrigation Cooperative Ltd (EICL) submitted that it was not clear if the fact that Sunwater makes no profit from the irrigation part of its business is reflected in its proposed WACC.[207]

As a regulator, when setting prices (or rates of return on the assets used to provide the service), we need to consider, among other factors, the efficient use of resources and investment over time. These considerations are informed by an assessment of what would occur in an effectively competitive market. The rate of return depends on the riskiness of the business activity, not on whether the business is owned privately or by the government – ownership does not matter. In this context, setting a rate of return that is too low would not be consistent with the principle of competitive neutrality.

While noting that certain time-varying WACC parameters will need to be updated as part of the final report, our view is that Sunwater's proposed WACC is reasonable and provides a return on investment commensurate with the regulatory and commercial risks involved.

[205] QCA, *Rate of return review*, final report, version 3, February 2024.
[206] Sunwater, sub. 43, p. 2; Cotton Australia, sub. 48, p. 4; Queensland Farmers' Federation, sub. 59, p. 5.
[207] EICL, sub. 49, p. 13.

6.3.2 Analysis of WACC parameters

Beta

Sunwater proposed an equity beta of 0.725. This estimate was informed by:

- an estimate of the asset beta for a sample of international water businesses, re-levered using an assumed 60% level of gearing to estimate an equity beta of 0.739
- IPART's biannual WACC update spreadsheet, which provides both short- and long-term beta estimates of 0.7 for water businesses.[208]

As part of the 2020 review, we considered that an equity beta of 0.755 was reasonable. Furthermore, we note that Sunwater's systematic risk profile has not markedly changed since the last review, given the lack of growth options available to Sunwater, and its relatively stable customer base.

As a cross-check, we have investigated the asset betas of relevant international regulated energy and water businesses. This sample of businesses had a median asset beta of 0.38 and an average asset beta of 0.39. Assuming a 60% level of gearing, this equates to an equity beta of approximately 0.8 using the Myers-Brealey formula to re-lever.

Based on the above information, we find Sunwater's proposed beta is reasonable.

Risk-free rate

Sunwater proposed a risk-free rate of 4.27% using 10-year Australian Government nominal bond yields and a 20-day averaging period to 1 September 2023.[209]

We were unable to replicate the calculations underlying Sunwater's risk-free estimate. Over the same 20-day averaging period to 1 September 2023, we calculated a risk-free rate of 4.18%. To generate draft prices, we have substituted Sunwater's estimate of the risk-free rate with our own, recognising that this reflects the methodology Sunwater was attempting to replicate.

This risk-free rate estimate is preliminary in nature and will be updated ahead of the final report based on Sunwater's nominated averaging period. To this end, Sunwater's preference was for an averaging period as close as reasonably possible to the start of the regulatory period.

Given that our final report is due to the government by the end of January 2025, our view is that an averaging period ending in November 2024 would represent the latest possible averaging period before we finalise our report. After communicating this to Sunwater, it proposed that the risk-free rate be calculated using the 40 business days to November 29, which we view to be reasonable.[210]

Market risk premium

Sunwater submitted a market risk premium (MRP) of 6.5% based on the 2020 review. Sunwater also noted this this proposed value was between IPART's 2023 estimates of the long-term MRP of 6.0% and the short-term estimate of the MRP of 7.7%.[211]

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[208] Sunwater, sub. 17, pp. 9–14.
[209] Sunwater, sub. 17, pp. 8–9.
[210] Sunwater, response to RFI 146.
[211] Sunwater, sub. 17, p. 15.

As set out in the 2024 rate of return review report, we consider that it is reasonable to estimate the MRP using the Ibbotson approach. Our estimate of the MRP using the Ibbotson approach, updated to include data from 2024 is 6.3%.

Credit rating

Sunwater proposed a credit rating of BBB. In its proposal, Sunwater noted that in the 2020 review, we considered a BBB credit rating for Sunwater was appropriate and that there has been no major financing or market changes to Sunwater since that time. Sunwater also highlighted that it is common for regulators to assign a BBB credit rating to regulated businesses.[212]

Our view is that Sunwater's risk profile has not changed materially since our last review where we assigned Sunwater a BBB credit rating. As such, we consider that a BBB credit rating is should continue to be used.

Cost of debt

Sunwater has proposed a cost of debt of 4.95% based on a trailing average cost of debt of 4.85% and debt raising costs of 0.1%. Sunwater's proposed trailing average comprised 10 yearly debt estimates spanning from April 2013 to March 2023.[213]

Sunwater's cost of debt calculation is consistent with our approach to calculating the cost of debt for a BBB credit rating business. However, since Sunwater made its proposal, there has been a change to the data underlying Sunwater's proposed cost of debt. Specifically, the RBA no longer publishes spread to swap data, which has been used to extrapolate the cost of debt to an effective 10-year term. The 2024 rate of return report now details our new approach to extrapolate the cost of debt to achieve an effective 10-year term.

Similar to the risk-free rate, Sunwater's cost of debt estimate is preliminary in nature and will be updated ahead of the final report based on Sunwater's nominated averaging period. Given timing constraints, Sunwater has nominated using a 12-month period to November 2024 to estimate the cost of debt. As this is the first time a trailing average cost of debt has applied to Sunwater, we consider it reasonable to calculate the trailing average cost of debt in the final decision using 10 yearly cost of debt estimates that each use a 12-month averaging period to November of the respective year. In this fashion, Sunwater's trailing average cost of debt involves using data stretching from December 2014 to November 2024.

While a mechanism does not exist within this review to allow for annual updates of the cost of debt within the upcoming price path period, a true-up of the trailing average cost of debt could be incorporated as part of the ex-post review at the next irrigation price review.

Gearing

Sunwater proposed a gearing level of 60% debt. In support of this position, Sunwater said that the gearing for a regulated entity is likely to be stable over time because regulated entities tend to have stable cash flows. In addition, Sunwater considered that its level of regulatory gearing should reflect the gearing approved for similar entities. Sunwater highlighted that recent regulatory decisions for water businesses included approved gearing levels of 60% debt.[214]

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[212] Sunwater, sub. 17, pp. 6–7.
[213] Sunwater, sub. 17, pp. 7–8.
[214] Sunwater, sub. 17, p. 6.

Our view is that gearing set at 60% debt is appropriate. In coming to this view, we consider that target levels of gearing are unlikely to change much over time and Sunwater's proposed gearing is in line with other potentially similar water businesses.

Gamma

Sunwater proposed a gamma of 0.484 based on a distribution rate of 0.88 and a utilisation rate of 0.55.[215] This is consistent with our estimate of gamma in the 2024 rate of return report.

6.3.3 Normalisation and top down-assessment

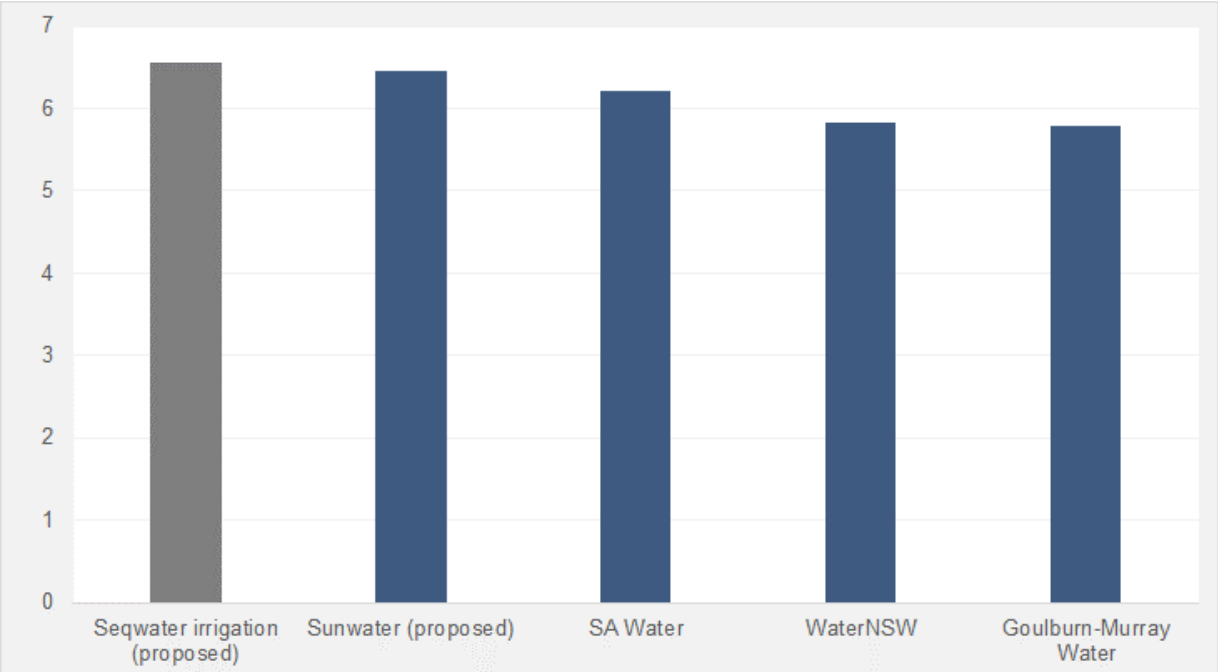
The objective of performing a WACC normalisation task against regulatory decisions for other potentially comparable businesses is to get a sense of the reasonableness of the WACC proposal from an overall perspective.

To perform the normalisation, we have used a March 2024 averaging period to compare regulatory rate of returns. It is important to note that as the task of the normalisation process is to generate an estimate of what the regulator would have determined the rate of return to be at the same point of time, various assumptions are required. As such, the outcomes of this exercise are not determinative and should be treated with some level of caution.

As can be observed in Figure 16, Sunwater's proposed WACC sits to the upper end of the range of comparable businesses. Each of the businesses that we have compared have some degree of business operations devoted to irrigation customers. However, SA Water also services a large residential customer base, and for that reason we might expect it would face a lower level of risk than Sunwater. While the Sunwater WACC sits at the upper end of the range, we consider this is consistent with our assessment of relative risk – the result is not unreasonable.

[215] Sunwater, sub. 9, p. 61.

Figure 16: Normalised WACC comparisons for selected Australian regulated businesses (%)



Sources: Sunwater, sub. 9; Seqwater, sub. 1; ESCOSA, *SA Water Regulatory Determination 2024*, draft decision, January 2024; ESC, *Goulburn-Murray Water draft decision*, 2024 Water Price Review, March 2024; IPART, *WACC calculator*, February 2024.

6.3.4 Overall considerations

Sunwater's proposed WACC largely reflects estimates that are in line with those produced using the methods set out in 2021 rate of return review. Although Sunwater has proposed a slightly higher market risk premium than our own estimate, we consider the difference to have an immaterial impact on the overall rate of return. Furthermore, while Sunwater's proposed WACC sits towards the upper end of WACCs as part of the normalisation exercise, we do not consider this is unreasonable given our assessment of relative risk, nor does it require us to make a top-down adjustment to Sunwater's proposed WACC.

Subject to updated estimates of time-varying parameters (risk-free rate and cost of debt), we consider that Sunwater's proposed WACC is likely to be reasonable and provides a return on investment commensurate with the regulatory and commercial risks involved. As part of this draft report, we have adopted a draft WACC of 6.53%.[216]

[216] This slight change to Sunwater's proposed WACC reflects the substitution of Sunwater's risk-free rate estimate of 4.27% with our estimated value of 4.18%.

7 Total allowable costs

In this chapter, we set out our draft position on the total allowable costs for the specified schemes in the referral. To determine total allowable costs, we add together our proposed opex, renewals allowance, and allowance for tax, and then deduct revenue from miscellaneous fees and charges.

7.1 Total allowable costs

We used the building block approach to determine prudent and efficient allowances for each component of allowable costs:

- an opex allowance – the ongoing costs of running the business and maintaining assets, including operations, maintenance and administration costs and an end-of-period adjustment for the cost of review events that occurred in the current price path period (Chapter 4)
- a renewals expenditure allowance – an appropriate allowance for the prudent and efficient costs of renewing existing assets (section 7.2), reflecting our assessment of prudent and efficient renewals expenditure (Chapter 5), the opening annuity balance (section 7.3) and an appropriate rate of return (Chapter 6)
- tax – consistent with our post-tax nominal approach to the weighted average cost of capital (WACC), we include an allowance for tax as part of total costs (section 7.5).

To determine total allowable costs, we add the components together and then deduct the revenue Sunwater earns from other sources (section 7.6).

Based on our findings for each of these components, our draft position on total allowable costs is provided in Table 37.

Table 37: QCA draft position – total allowable costs ($ million, nominal)

Cost component	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposed					
Total allowable costs – RAB approach	98.0	110.4	112.7	112.9	**433.9**
Total allowable costs – annuity approach	117.5	120.1	122.8	125.4	**485.7**
QCA draft position					
Opex[a]	79.3	81.2	82.8	84.5	**327.7**
Renewals allowance	24.0	24.5	25.1	25.7	**99.3**
Tax allowance	-	-	-	-	**-**
Revenue offset	(1.8)	(1.9)	(1.9)	(2.0)	**(7.6)**
Total allowable costs	**101.4**	**103.8**	**106.0**	**108.2**	**419.4**
Difference[b]	**(16.1)**	**(16.3)**	**(16.8)**	**(17.1)**	**(66.3)**

a Includes QCA fee and review events adjustment. b Sunwater's total allowable costs include a renewals allowance derived using the annuity approach, consistent with the approach used to derive QCA draft total allowable costs.
Source: Sunwater, sub. 9, pp. 126–127; QCA analysis.

7.2 Approach to recovering renewals expenditure

In previous irrigation price reviews, we used a renewals annuity approach to derive an appropriate allowance for prudent and efficient expenditure on renewing existing assets.

In the 2020 review, we recommended that the water businesses work with customers and the government to develop a proposal on transitioning to a regulated asset based (RAB) approach for funding the irrigators' share of asset renewal costs.[217] In March 2023, the Minister for Water advised us that while a RAB-based methodology had merit, proposals from the businesses relating to a RAB-based methodology, and any associated decisions from the government, were not expected to be available for consideration by us as part of this review.[218]

Sunwater proposed moving from an annuity approach to a RAB approach at the start of the price path period (1 July 2025). Sunwater said that it proposed this change on the basis that:

- customers were either broadly supportive of, or agnostic to, the change; had been afforded ample opportunity to engage with the proposal; and would generally be better off
- cost-reflective prices in most schemes would be lower under the RAB approach than under the annuity approach, placing downward pressure on the community service obligation (CSO) payment provided to Sunwater
- the RAB approach would deliver improvements in efficiency, equity and transparency
- the RAB approach had been designed appropriately, with key design features being part of customer engagement.[219]

7.2.1 RAB approach and renewals annuity approach

The renewals annuity approach and the RAB approach are different ways of funding the periodic maintenance, refurbishment and replacement of the assets used to provide irrigation services.

Under a renewals annuity approach, a business forecasts the annual cost of refurbishing and replacing assets over a long-term planning period (typically at least 20 to 30 years). These forecast costs are then discounted to present value terms and converted into a smooth annual allowance (the annuity) using the weighted average cost of capital (WACC).[220] In some instances, revenues from prices (and the government's subsidy) will pre-fund renewals expenditure through the build-up of a positive annuity balance. In other cases, the water business finances or partly finances the renewals expenditure when the annuity balance is negative or insufficient to fund the expenditure.

Under a RAB approach, the business forecasts the annual cost of refurbishing and replacing assets over the regulatory period. The business finances the capex component of renewals using debt and/or equity capital and recovers its annual financing costs (i.e. the return on, and of, capital). The business also recovers the opex component of renewals costs in the year it is incurred.

In practice, a key challenge with the annuity approach is that it requires a good knowledge of the system of assets – including the condition of individual assets, the appropriate schedule for maintenance and refurbishment, and the expected timing of replacement – to effectively forecast the profile of renewals expenditure over the relatively long forecast horizon required.

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[217] QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, p. 83.
[218] Dick, C (Treasurer and Minister for Trade and Investment), covering letter to the referral notice to the QCA, 10 March 2023.
[219] Sunwater, sub. 9, p. 47.
[220] A WACC return on capital is also applied annually to the opening annuity balance to derive a financing cost where the annuity balance is negative or interest revenue where the annuity balance is positive.

Table 38 compares different features of the RAB and renewals annuity approaches.

Table 38: Key features of RAB and renewals annuity approaches

Feature	RAB approach	Renewals annuity approach
Approach to investment funding	The business sources finance to fund investments as they occur and recovers financing costs from customers over the life of the investments.	The business may raise funds from customers for future renewals or source finance to fund renewals as they occur (if the annuity balance is insufficient to cover the cost).
Timing of cost recovery	The business recovers costs over the life of the asset from the customers who benefit from the investments.	The business recovers costs substantially over the 30-year planning period rather than over the life of the asset.
Implications for asset management and planning	The business requires a robust asset management framework to understand when capex is likely to be incurred. However, as capex is generally recovered from customers after it has been incurred, forecast uncertainty has less of an impact on prices.	The business requires a robust asset management framework to inform a forecast of the renewals profile over the long-term planning period. Given the difficulty in forecasting the cost and timing of high-cost long-life renewals, forecast uncertainty is likely to have a significant impact on prices.

7.2.2 Assessment of the approaches

We assessed Sunwater's proposed RAB approach against the existing renewals annuity approach. In summary, we consider that the RAB approach:

- generally has improved efficiency due to improved investment incentives, more cost-reflective pricing and more efficient risk allocation
- would generally lead to improved allocation of costs to different customer cohorts over time, but there would be transitional impacts
- as proposed by Sunwater, could lead to greater price target variability
- would generally lead to improved transparency.

Economic efficiency

The key differences in efficiency properties relate to incentives for efficient investment, cost reflectivity of pricing, the allocation of risks, and informational costs.

Incentives for efficient investment

The approach to recovering renewals expenditure may have implications for dynamic efficiency in terms of providing appropriate signals for efficient operation and investment.

Sunwater said that the RAB approach provided it with greater flexibility to re-prioritise expenditure and pursue least cost opportunities and respond to service improvements.[221] Sunwater said that the adoption of annuity funding effectively locks in a predefined outcome for service provision.

[221] Sunwater, sub. 9, p. 49.

We generally consider that there are better incentives for efficient investment under the RAB approach since the business's revenue is directly linked to the prudency and efficiency of its capex. The business is responsible for sourcing investment finance and bears the risk that imprudent or inefficient expenditure will be excluded from the RAB resulting in its renewals allowance not covering its actual financing costs.

There are lower incentives for efficient investment under a renewals annuity approach, since the business's revenue is not directly linked to the prudency and efficiency of its capex. A significant portion of annuity revenue will be associated with renewals projected far into the future, therefore mitigating the effects of excluding imprudent or inefficient expenditure in the near term.

Some stakeholders suggested that there would be incentives to overinvest to maximise the return on capital under a RAB approach through the WACC return.[222] If a RAB approach is adopted, we would counteract this incentive by excluding inefficient capex from the RAB through the ex post review process and possibly considering an incentive mechanism – for example, allowing the business to keep capex efficiencies. We note that Sunwater already has some incentive to overinvest, as it currently earns a WACC return on capital on negative annuity balances.

Cost-reflective pricing

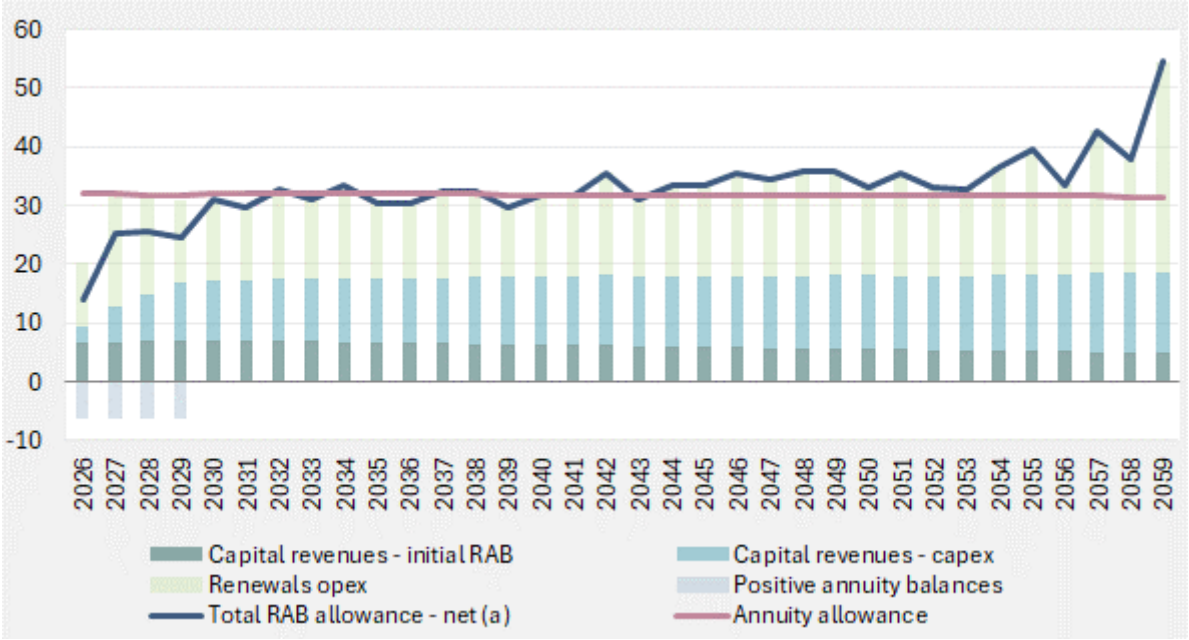
Sunwater said that there would be greater alignment with the user pays principle under a RAB approach.[223] It said that a RAB approach would allow cost recovery through depreciation to reflect the useful lives of long-lived assets, which would make prices more cost reflective. Under the annuity approach, Sunwater said, there was very little alignment with the user pays principle.

In theory, a renewals annuity should be calculated over a term equivalent to the longest-life asset in the asset base. Given the 30-year planning period is less than the term of the longest-life asset, the recovery of costs of long-life assets substantially takes place over the 30-year planning period rather than over the life of the asset.

We note that the RAB approach would smooth the recovery of the capex component of renewals over the life of the asset (see capital revenues—capex in Figure 17). However, Sunwater's existing capitalisation policy results in a large proportion of renewals being treated as an opex step change (see renewals opex in Figure 17), which reduces alignment with the user pays principle if this component includes renewals with multi-year benefits (see section 7.2.3).

[222] Canegrowers, sub. 43, p. 2.
[223] Sunwater, sub. 9, p. 49.

Figure 17: Renewals cost recovery profiles under each approach ($ million, 2025–26 dollars)



a The total RAB allowance is a net amount comprising the sum of capital revenues and renewals opex, partially offset by a deduction for the return of positive annuity balances in the initial four-year period ($6.4 million each year). The lower cash flows in the initial price path period are mainly due to the return of positive annuity balances.
Source: Sunwater pricing model RAB; Sunwater pricing model annuity; QCA analysis.

More cost-reflective pricing can signal to water customers the forward-looking cost of providing the bulk water service. A more cost-reflective price would encourage customers to use water to the extent they value it, or trade their water access entitlements (WAEs) on temporary or permanent water markets.

Efficient risk allocation

While the RAB and annuity approaches generate the same expected revenue in net present value terms, the timing of cash flows will differ between them. Sunwater said that it understood the revenue implications and was comfortable that a shift to its proposed RAB approach would be sustainable for the business.[224]

Sunwater's proposed RAB approach would also result in it bearing the cost risk associated with renewals opex, which could improve incentives to pursue efficiencies during the price path period to retain the benefit of any underspend. However, this would also encourage the inefficient deferral of renewals opex to future periods. While Sunwater could still have an inappropriate preference for capex over opex due to the ability to recover capex overspend through the ex post review process, there is a clearer delineation between opex and capex than in the current distinction between routine and non-routine costs,[225] which allows any non-recurrent opex to be treated as non-routine and to be subject to ex post review.

Informational costs

Sunwater said that its proposed RAB approach would be more efficient, with less time and effort spent on highly uncertain long-term forecasts.[226] Sunwater said that, initially, the efficiency gain from

[224] Sunwater, response to RFI 127.
[225] Sunwater classifies activities as routine (cyclical in nature with a typical interval of 12 months or less) or non-routine. However, while Sunwater's capitalisation guideline specifies how expenditures should be classified as capex or opex, there are not detailed guidelines on how to differentiate between routine and non-routine costs.
[226] Sunwater, sub. 9, p. 49.

moving away from the existing annuity approach would take the form of more robust forecasts of capex rather than a reduction in resourcing effort.[227] It said that over time this improved focus would likely lead to better scoping of works, and reduced costs and/or improved asset performance, but it was not appropriate or practicable to quantify this improvement.

As noted by AtkinsRéalis, Sunwater's approach to forecasting renewals expenditure has a shorter-term focus, with limited confidence in the cost and definition of project beyond its five-year rolling plan.[228] AtkinsRéalis found that Sunwater's current approach to long-term planning of asset replacement is well behind industry best practice and that Sunwater can improve its asset information to inform the timing of renewals to avoid additional costs and inefficiencies.[229]

As such, we do not consider there would be material savings in Sunwater's asset management and planning activities as a result of moving to a RAB approach. Irrespective of whether or not Sunwater moves to a RAB approach, we consider there are room for efficiencies in the renewals program if Sunwater implements our draft findings in section 5.4.3.

Broader public interest concerns (including fairness and equity)

Some stakeholders were concerned about the present generation using and wearing out existing assets without contributing to depreciation, leaving the next generation to fund refurbishment or replacement.[230] These stakeholders were also concerned that when large capital works were required to replace ageing assets, there would be possible future price shocks under the RAB approach.[231]

Regarding the concern about depreciation, we note that the return of capital, under the RAB approach, is intended to repay the party that provides funding for the initial investment. It does not represent a provision for the wear and tear of the asset.

As shown in Figure 17, beyond the next price path period, renewals-related revenues are forecast to be similar under each of these approaches. In the initial years of the RAB, the capital revenues for renewals capex will be lower, as they will include a relatively small portion of all refurbishments and replacements over the life cycle of the asset base. The capitalisation of negative annuity balances (see capital revenues – initial RAB in Figure 17) in most schemes will provide some capital revenues for renewals expenditure since 1 July 2000 from the initial years of the RAB.

In addition, the weighted average asset life for forecast renewals capex up to 2057–58 is 32.7 years, which allows the associated price impacts to be smoothed over this period. Large capital works associated with ageing assets will tend to have an asset life longer than this average, smoothing the impact over a longer period than the 30-year planning period under the renewals annuity approach.

The government's current pricing principles also moderate price increases by establishing a gradual transition path to the price target.

Sunwater said that cost-reflective prices in most schemes will be lower under the RAB approach, placing downward pressure on the CSO payment the government provided to Sunwater to cover the shortfall in revenue recovery that occurs when the price is below the corresponding price target.[232] However, this effect is mainly in the initial price path period and is mainly driven by

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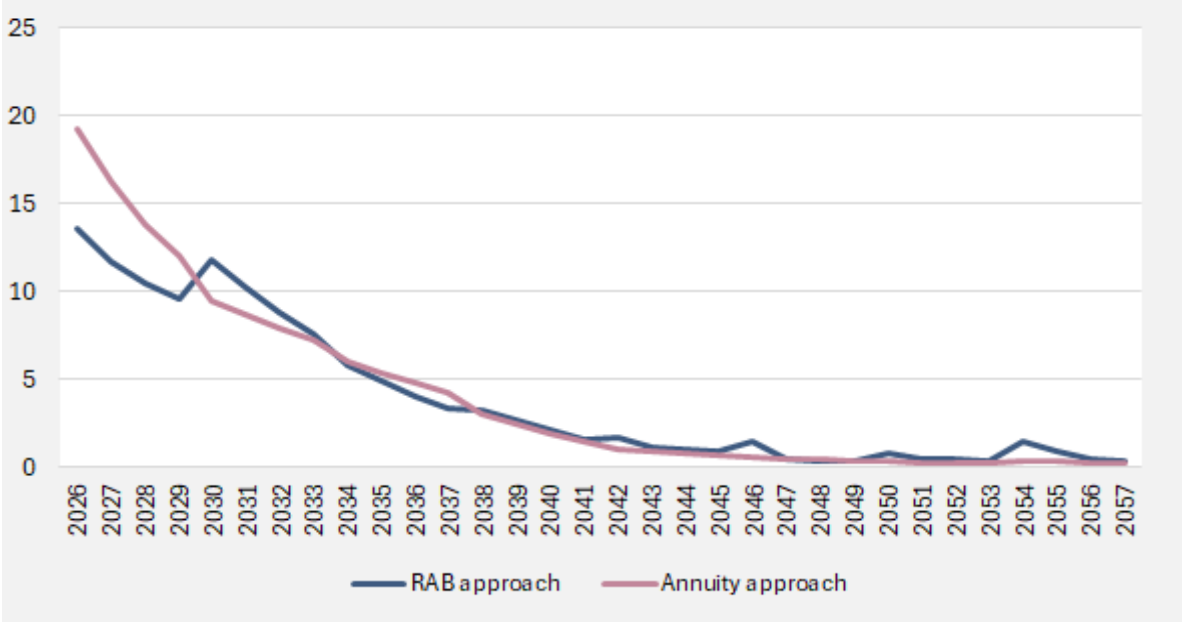
[227] Sunwater, response to RFI 128.
[228] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, pp. 22–24.
[229] AtkinsRéalis, *Expenditure Review for Rural Irrigation Price Review 2025–29*, final report, p. 25.
[230] BRIA Irrigators, sub. 42, p. 12; Bundaberg Regional Irrigators Group (BRIG), sub. 41, p. 2; Canegrowers, sub. 43, p. 2.
[231] BRIA Irrigators, sub. 42, p. 12; BRIG, sub. 41, p. 2; Canegrowers, sub. 43, p. 2.
[232] Sunwater, sub. 9, pp. 47, 142–143. Sunwater estimated that the CSO payments would be lower by $15.1 million over the price path period under the RAB approach.

transitional issues such as the repayment of positive annuity balances in some schemes. In future price path periods, the RAB approach could result in higher revenue shortfalls in some years, as greater variability in the price target will result in higher revenue shortfalls in cases where prices gradually transition back to the price target after an immediate decrease in the previous period (Figure 18).

Figure 18: Forecast revenue shortfalls under each approach ($ million, 2025–26 dollars)



Source: Sunwater pricing model RAB; Sunwater pricing model annuity; QCA analysis.

Transparency, predictability and simplicity

We have been directed to have regard to ensuring, where possible, that revenue and pricing outcomes are both simple and transparent for customers. In addition, predictability in pricing is important for customers to make consistent plans based on stable expectations about prices and not be faced with the risk of significant volatility in prices.[233]

Sunwater said that a RAB approach would be:

- simpler, since a RAB approach requires a 4-year forecast rather than a 33-year forecast
- more transparent, with improved alignment between costs and the service being provided.[234]

Canegrowers was concerned that there would be reduced transparency under a RAB approach if the long-term capex forecast was no longer provided.[235] It was concerned that it would only see the current and perhaps subsequent price period as needed for the RAB and could lose sight of the long-term planning.

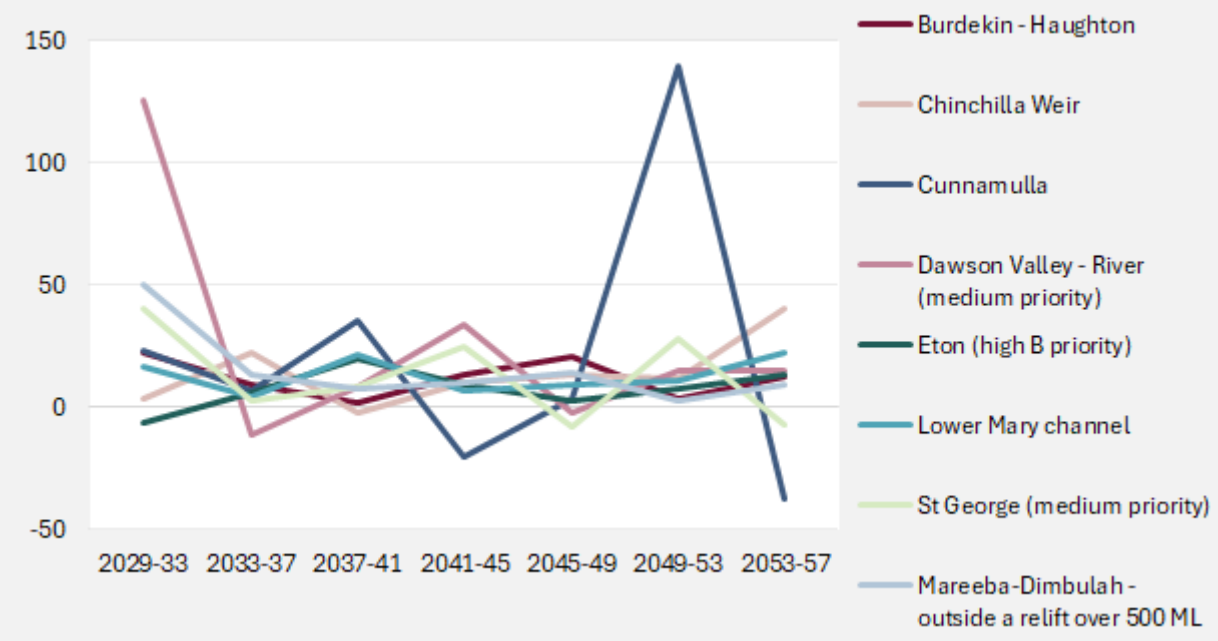
Under either cost recovery approach, we expect Sunwater to provide us with long-term renewals plans that show its supporting methodology and assumptions. This long-term planning should be developed through ongoing engagement with customers to ensure that these plans deliver in the long-term interests of customers. Overall, we consider that an appropriately designed RAB approach is more transparent, as it allows customers to see the pricing impacts of near-term

[233] QCA, *Statement of regulatory pricing principles for the water sector*, final statement, April 2021, pp. 23–24, 35.
[234] Sunwater, sub. 9, p. 49.
[235] Canegrowers, sub. 43, p. 2.

renewals expenditure and requires the business to provide funding and service the associated financing costs. This aligns closely with the primary focus of Sunwater's updated service and performance plans (SPPs).

As outlined in section 7.2.3, Sunwater's capitalisation policy leads to a large portion of renewals being expensed, which appears to differ from standard practice by other water businesses in Australia. This policy leads to potential variability in the price target between price path periods due to some lumpy renewals projects (Figure 19).[236] While existing government policy of a gradual transition to the price target would moderate the impact on irrigation prices, this would impact the length of the transition period to the price target and the level of the government's subsidy.

Figure 19: Change in price target between price path periods under RAB approach, selected tariff groups (% real change)



Source: Sunwater pricing model RAB; Sunwater pricing model annuity; QCA analysis.

7.2.3 Practical considerations

While the RAB approach has improved efficiency properties and better alignment with the user pays principle, we have concerns with the potential level of price target variability under Sunwater's proposed approach. We consider that Sunwater needs to undertake further work on some of the practical considerations of transitioning to a RAB approach, particularly the treatment of existing annuity balances and the appropriate capitalisation of renewals for pricing purposes.

Appropriate capitalisation of renewals expenditure for pricing purposes

In the 2020 review, we said that we expected Sunwater to undertake a comprehensive review of its renewals profile to identify appropriate opex and capex treatments, as these could significantly impact pricing under a RAB approach.[237] In its proposal, Sunwater said that its forecast renewals were separated into opex and capex elements based on its existing capitalisation guideline.

[236] A similar analysis under the annuity approach shows real changes in the price target limited to less than 10% for all schemes between price path periods.
[237] QCA, *Rural Irrigation Price Review 2020-24, Part B: Sunwater*, final report, January 2020, p. 83.

Sunwater said that the next review of its capitalisation approach would consider the government's acceptance (or otherwise) of its proposed shift to a RAB approach.[238]

Sunwater said that the opex and capex elements of renewals would be recovered as follows:

- The opex component would be fully recovered in the year in which it is incurred as a step change to baseline opex.
- The capex component would be rolled into the RAB as incurred or commissioned and recovered over the life of the asset.

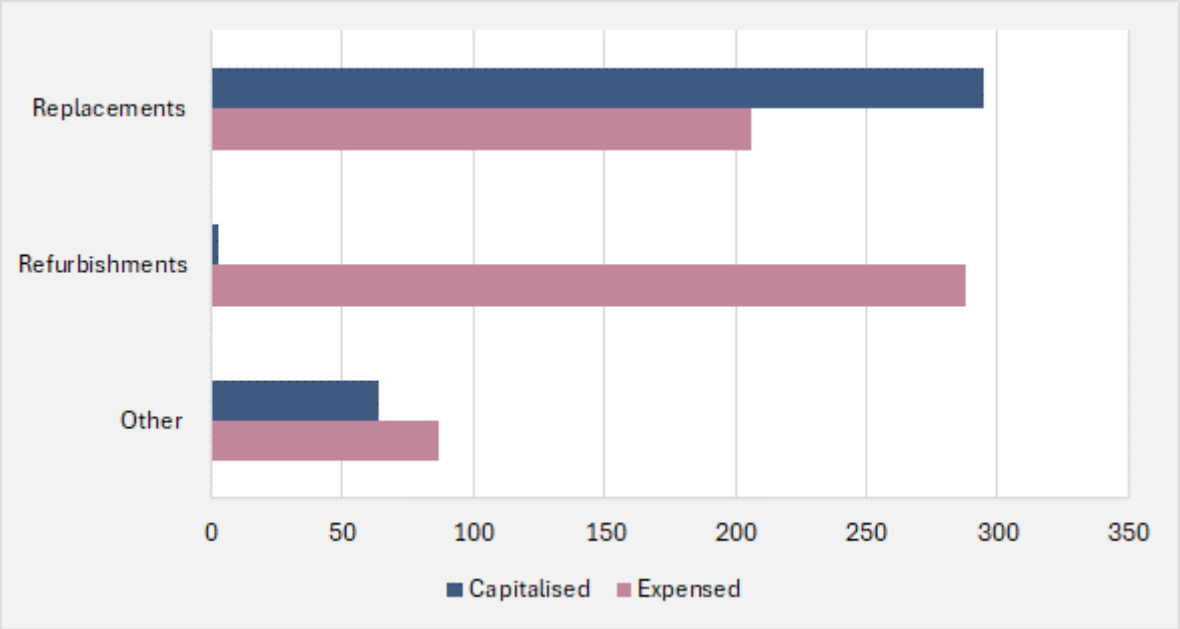
Sunwater's capitalisation policy leads to a large portion of renewals being expensed, which appears to differ from standard practice by other utilities in Australia.[239] Under Sunwater's policy, there are additional requirements for expenditure to be considered renewals capex, namely that the replacement should constitute more than 75% of the asset facility[240] replacement cost or both enhance function and extend asset life. Around 42% of forecast renewals over the upcoming price path period have been expensed, with this being over 70% of total renewals in subsequent periods.

We also note that the expensing of a large proportion of renewals expenditure (and including this as a step change in the opex allowance) differs from other rural water businesses that have transitioned to a RAB approach. For example, WaterNSW only incorporated a small proportion of its renewals and replacement expenditure (less than 1% in 2021–22) in its proposed baseline opex for rural water prices from 1 July 2021.[241] In recent reviews of Victorian rural water businesses, the only renewals-like expenditure approved by Essential Services Commission (ESC) as an opex step change (as cyclical expenditure) were dam safety reviews for Goulburn-Murray Water.[242] Similarly, we accepted dam safety reviews as a step change in Seqwater's irrigation opex allowance, with all expenditure in Seqwater's proposed renewals annuity being capex.

Our analysis shows that Sunwater is expensing many asset replacements that provide benefits over multiple periods, would lead to a material increase in assumed useful life, and meet the standard value threshold for capitalisation[243] (Figure 20).

[238] Sunwater, response to RFI 4.
[239] AtkinsRéalis, *Expenditure review for rural irrigation price review 2025–29*, June 2024, pp. 28–30.
[240] This is defined in Sunwater's Asset Capitalisation Guideline as a separately identifiable group of individual asset components that perform a distinct function within a scheme segment (e.g. dam, spillway, drainage, pipelines, pump station and channels). See Sunwater, response to RFI 4.
[241] WaterNSW, *WaterNSW Pricing Proposal to the Independent Pricing and Regulatory Tribunal*, June 2020, pp. 62, 83–84.
[242] ESC, *Goulburn-Murray Water draft decision*, 2024 Water Price Review, 26 March 2024, pp. 23–24. Neither GWMWater nor Southern Rural Water proposed renewals expenditure in their proposed step changes in the 2023 water price review.
[243] Over the price path and planning periods (2025–26 to 2058–59), 98% of renewals projects that have been expensed have expenditure larger than Sunwater's capitalisation threshold of $10,000.

Figure 20: Sunwater's renewals program by renewal type ($ million, 2025–26 dollars)

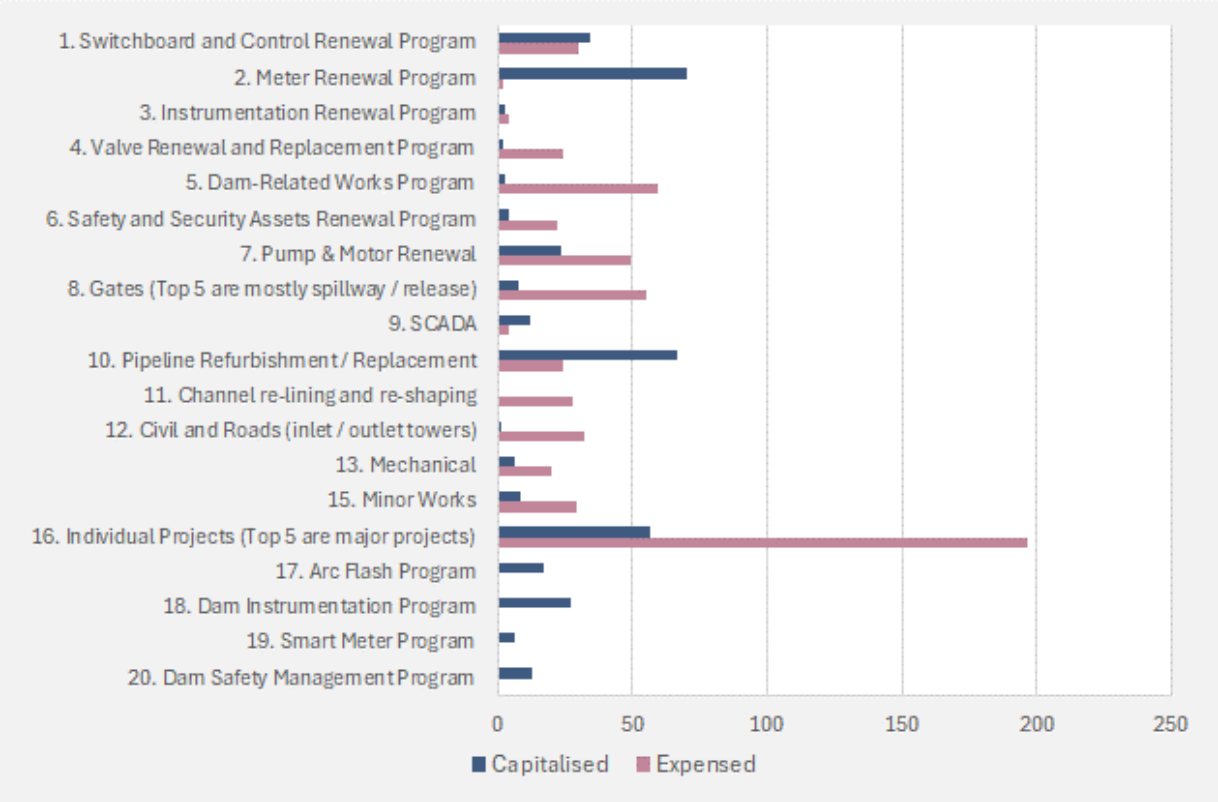


Source: Sunwater supporting documents (10 WMS data Renewals final values); QCA analysis.

AtkinsRéalis said that almost all of Sunwater's proposed renewals expenditure appeared to be consistent with what other regulated water businesses classified as capex. It said that some of the apparent programs that were typically considered capex included major projects, switchboard and control renewal and dam-related works. For example, the largest renewals program in the Eton water supply scheme over the next price path period is the replacement of the electrical switchboard for the Mirani Pump Station in 2028 at a cost of $1.9 million.[244] This asset has an operational life of 40 years, with no further replacements for this asset forecast over the remainder of the 30-year planning period up to 2057–58. Figure 21 shows the breakdown between opex and capex for Sunwater's proposed renewals programs from 2025–26 to 2057–58.

[244] Sunwater, sub. 27, p. 16. The expensing of this large item results in the price target for Eton water supply scheme being 9.3% higher under a RAB approach, compared to an annuity approach. A 13.7% fall in the price target is then forecast for the subsequent price path period (i.e. from 2029–30 onwards).

Figure 21: Sunwater's renewals program by program ($ million, 2025–26 dollars)



Source: Sunwater supporting documents (10 WMS data Renewals final values); QCA analysis.

Accurately forecasting renewals expenditure is more difficult than forecasting recurrent opex because renewals projects are generally lumpy and non-recurrent. While we generally allocate opex risk to Sunwater to encourage it to become more efficient, the inclusion of lumpy renewals projects in opex may also encourage the inefficient deferral of spending to future periods or a reduction in spending that would otherwise be efficient, which may adversely affect service provision. It can be difficult to distinguish between underspending due to genuine improvements in efficiency and underspending due to the inefficient deferral of expenditure.

While Sunwater said that it would consider the implications of a RAB approach in its next review of its capitalisation policy, this makes it difficult for us to assess implications of a possible future change to this policy on future price target variability. In addition, changes to Sunwater's capitalisation policy during the next price path period could lead to the capitalisation of expenditure already incorporated within the opex allowance, and possible double counting of this expenditure.

Treatment of existing annuity balances

In theory, the value of Sunwater's RAB at any given point in time should represent the value of past capex. In the context of this investigation, the value of the asset base for existing rural irrigation assets (as at 1 July 2000) should not be considered when determining allowable costs.[245]

Sunwater said that the opening RAB on 1 July 2025 for each scheme would be:

- for schemes with negative annuity balances on 30 June 2025 – the outstanding liability of the negative annuity balance

[245] Referral, para. B(1.1)(a).

- for schemes with positive annuity balances on 30 June 2025 – zero, with the positive annuity balance directly reducing the price target over the price path period.[246]

The annuity balance as at 1 July 2025 reflects whether Sunwater has recovered less (for negative annuity balances) or more (for positive annuity balances) in annuity revenue than the amount incurred through actual renewals expenditure from 1 July 2000 to 30 June 2025.

We consider that Sunwater's proposed treatment of rolling the outstanding liability associated with negative annuity balances into the opening RAB is reasonable.[247]

Sunwater adopted a 75-year asset life for the opening RAB in each scheme on the basis that:

- this took account of Sunwater's ability to carry its cumulative annuity debt
- a shorter asset life would push up prices relative to a longer one
- a historical review of component assets would be prohibitively complex and time consuming
- the majority of Sunwater's assets have lives between 20 and 60 years, and the weighted average life of assets expected to be capitalised in the next 12 years is less than 25 years.[248]

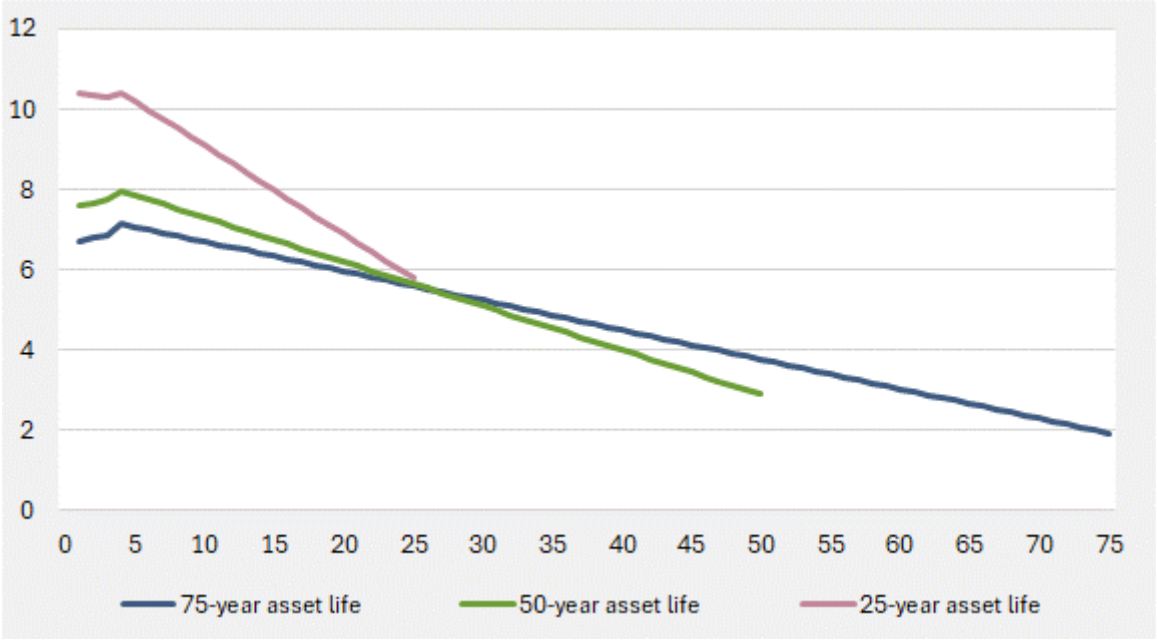
Sunwater said that it did not model alternative treatments to RAB opening balances, on the basis that the proposed approach was sound and consistent with regulatory principles that debt (associated with assets) is recovered over the serviceable life of those assets.[249]

We agree that a review of the weighted average asset life of renewals incurred since 1 July 2000 would be costly with limited benefit. We note, though, that the proposed asset life of 75 years appears high compared to the weighted average life of assets expected to be capitalised in the next 12 years (24.1 years) and over the price path and planning period (32.7 years).

While a shorter asset life would result in higher capital revenues over the shorter life of asset, it will have a lower total amount collected over the life of the asset relative to a longer asset life. The higher cash flows associated with a shorter asset life could partly address the lower initial cash flows as renewals capex is added to the initial RAB. Figure 22 shows the different cash flow profiles from the different alternative asset lives.

[246] Sunwater, sub. 9, pp. 114–116.
[247] For example, in the transition of Lower Murray Water and Goulburn-Murray Water to a RAB approach, the Essential Services Commission recommended the recovery of negative annuity balances over a set period.
[248] Sunwater, sub. 9, p. 118.
[249] Sunwater, response to RFI 127.

Figure 22: Revenues from initial RAB for different asset lives ($ million, 2025–26 dollars)



Source: Sunwater pricing model RAB; QCA analysis.

Options for treating positive annuity balances include:

- returning the positive balance to customers over time by gradually using this balance to reduce the revenue requirement over a set period
- treating this balance as capital contributions and offsetting future capex spend.

We consider that Sunwater should review the timeframes for recovering (or returning) the negative (or positive) annuity balances from (or to) customers in its revised RAB proposal that incorporates an amended capitalisation approach that is appropriate for regulatory purposes.

Tax allowance

As part of its RAB approach, Sunwater proposed to include an annual tax allowance.[250] Sunwater's proposed approach to calculating its tax allowance is based on a standard regulatory tax calculation that uses forecasts of taxable revenue and tax expenses (such as depreciation, interest, opex).

Using its calculation approach, Sunwater forecast that there would be a zero tax allowance under the RAB approach in the next price path period. Sunwater said that under current tax rules for irrigation water providers[251], it is able to fully deduct all capex for tax purposes in the year in which it is incurred. This treatment results in accumulating tax losses over the next price path period.

Some stakeholders have raised concerns that Sunwater's RAB proposal creates an additional tax cost for Sunwater's return on capital earnings that is not incurred within the annuity approach.[252] Given this is a key issue that stakeholders raised, we have reviewed our approach to deriving the tax allowance associated with allowable costs.

Our general approach is to include an explicit allowance for tax that reflects the tax liabilities of a benchmark efficient firm operating in the private sector. We calculate tax by applying a tax rate of 30% (adjusted for the effects of dividend imputation) to taxable income. Both RAB and annuity

[250] Sunwater, sub. 9, pp. 118–122.
[251] *Income Tax Assessment Act 1997*, subdivision 40-F.
[252] BRIA Irrigators, sub. 42, p. 12; BRIG, sub. 41, p. 2; Canegrowers, sub. 43, p. 2.

approaches recover the cost of capital (return on and return of) for renewals. As we set out below, given that renewals-related revenues are forecast to be similar over the forecast period under these approaches, it is likely that there will not be material differences in tax costs between these two approaches.

Sunwater confirmed the following tax rules apply in terms of tax cashflows under either approach:

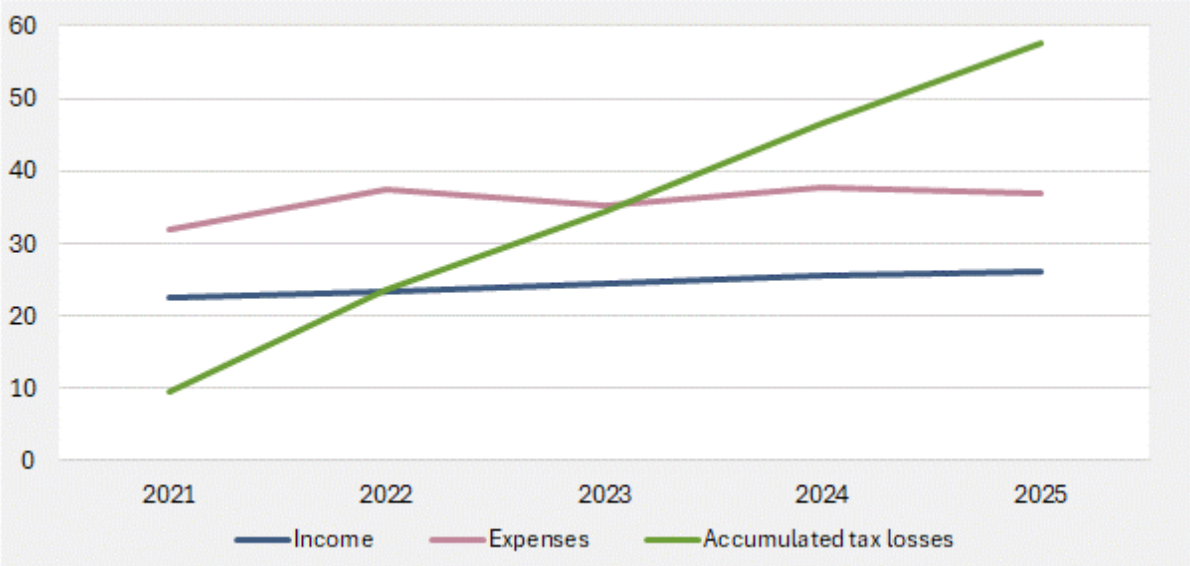
- Revenue is treated as income in the year in which it is received on a cash basis.
- All opex and capex are treated as expenses in the year they are incurred.[253]

Under the renewals annuity approach, the difference between income and expenses for tax purposes over the life cycle of the asset base will depend on the extent to which Sunwater and customers respectively have funded renewals. To the extent funding has been provided by Sunwater (i.e. in years of negative annuity balances), a WACC return on capital (referred to as annuity interest) is currently applied each year to the opening annuity balance.[254] Given Sunwater is funding this overall negative annuity balance, an interest deduction reflecting the cost of debt applied to the debt portion of this negative annuity balance also needs to be reflected in the tax calculation.

In the 2012 review, we said that the QCA-recommended efficient costs were equivalent to the definition of lower bound, which excludes a tax allowance.[255] However, in the 2020 review, the definition of allowable costs was no longer tied to the lower bound definition and included a tax allowance, if applicable.[256] We accepted Sunwater's proposal in the 2020 review to not include a tax allowance.[257] Figure 23 shows that a zero tax allowance was appropriate due to accumulating tax losses over the current price path period from 1 July 2020 to 30 June 2025.

[253] Sunwater, response to RFI 129.
[254] There has an overall negative annuity balance at the start of each year since the start of regulation in 2012–13. To the extent the funding has been received from customers (for a positive annuity balance), they will not receive a return on capital.
[255] QCA, *SunWater Irrigation Price Review: 2012–17*, vol. 1, final report, May 2012, p. 408.
[256] Referral notice, para. C(1.2), October 2018.
[257] See QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, pp. 91–93.

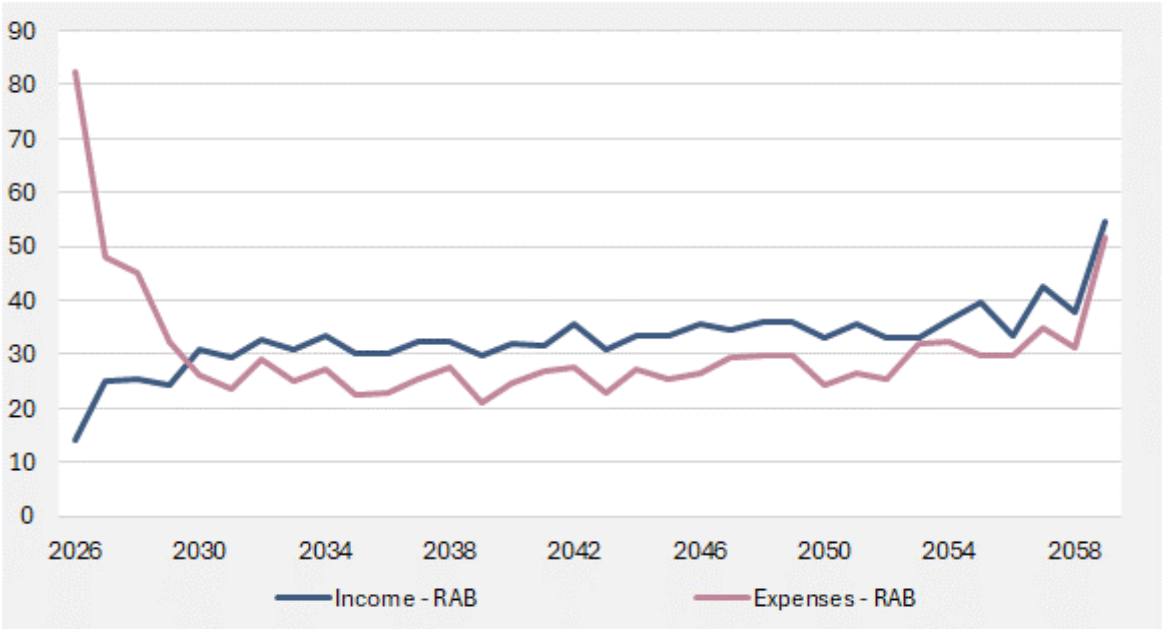
Figure 23: Renewals tax cash flows over the price path period ($ million, nominal)



Notes: Excludes opex, which would equally contribute to income and expenses and therefore not impact tax losses. Income comprises the annual annuity contribution and expenses comprises annuity funded renewals expenditure and the debt component of the return on the overall negative annuity balance each year.
Source: Sunwater pricing model RAB; Sunwater pricing model annuity; QCA analysis.

Under Sunwater's proposed RAB approach, income tax cash flows associated with renewals funding under the RAB approach are forecast to remain below the corresponding expenses over the next price path period, leading to further accumulated tax losses over the next four years (Figure 24). This is due to the relatively high forecast renewals expenditure over the price path period before a drop-off beyond the price path period.[258]

Figure 24: Forecast renewals tax cash flows under the RAB approach ($ million, 2025–26 dollars)

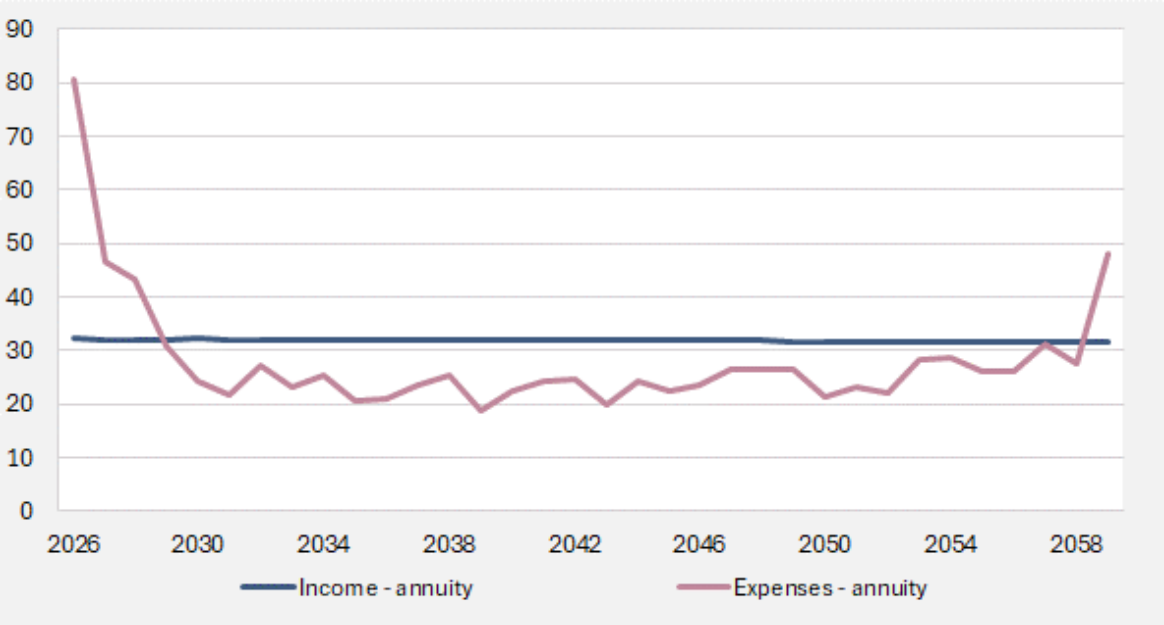


Source: Sunwater pricing model RAB; QCA analysis.

[258] This drop in renewals expenditure was noted by AtkinsRéalis. See AtkinsRéalis, *Expenditure review for rural irrigation price review 2025–29*, June 2024, p. 25.

There is a similar pattern under the existing renewals annuity approach, with income tax cash flows associated with renewals funding forecast to remain below corresponding expenses over the next price path period (Figure 25). Similar to the RAB approach, this demonstrates the zero tax allowance over the upcoming price path period before accumulated tax losses start running down.

Figure 25: Forecast renewals tax cash flows under the annuity approach ($ million, 2025–26 dollars)



Source: Sunwater pricing model annuity; QCA analysis.

In summary, the tax allowance would be very similar under RAB and annuity approaches. Under either approach, we expect this to be zero over the next price path period.

7.2.4 Customer engagement

We would generally be receptive to customer support in determining whether to recommend prices based on a RAB approach, but in this case we see some mixed messages. There is certainly no clear support from customers for the RAB approach. We note that customers have raised a series of concerns with the RAB approach, but we consider they are largely unfounded.

In the 2020 review, we said that Sunwater needed to engage with its customers to both assess their preferences and to inform and educate them on the potential impacts associated with transition to a RAB approach.[259]

Sunwater said that following confirmation of the review scope with the issuance of the referral in March 2023, its modelling and decision-making was based on the following steps:

- Determining the starting points for this proposal that were appropriate for engagement considering regulatory principles and customer impacts.
- Introducing the possibility of proposing a RAB approach with its Consultative Committee in May 2023, with testing and refinement of its engagement materials in June 2023.
- Providing information to the broader customer group in stage 2 of its engagement process, with explanations on how the RAB approach worked and its reasons for seeking support.

[259] QCA, *Rural Irrigation Price Review 2020–24, Part B: Sunwater*, final report, January 2020, p. 83.

- Providing other information for customers on its website, including an online calculator showing bill impacts for the next price path period.
- Providing an online platform (GoVote) where customers were required to view a short explanatory video prior to voting on this proposal.[260]

Sunwater said that based on 'agree' being the strongest sentiment (46% of responding customers agreed) and the majority support by scheme (13 of the 22 schemes had over 50% support), it was proposing a transition to a RAB approach.[261]

We have concerns with the approach used by Sunwater to determine customer support for this proposal. While it is good practice to ensure that voting customers receive appropriate information prior to undertaking a survey, in terms of pricing impact the focus of the informational video required to be watched by survey participants was on the online calculator which only shows bill impacts over the upcoming price path period. As shown in section 7.2.2, recovered costs (and therefore prices) are generally lower in the first price path period before moving to a similar level as under the annuity approach, with significantly greater price target variability.

Stakeholders were, however, generally opposed in their submissions to changing to a RAB approach as part of this review. They had concerns over the minimal support and unresolved issues in the two largest schemes.[262] Stakeholders were concerned about Sunwater's assessment of customer support; the limited timeframe for customer consultation on this change; intergenerational equity; the additional tax cost under a RAB approach; and the reduced transparency if the long-term forecast of renewals is no longer provided.[263] We also note that none of the organisations represented on the Consultative Committee supported the RAB proposal.[264] As outlined above, we do not consider any of these issues to be material under an appropriately designed RAB approach. However, we consider that Sunwater should have addressed these issues as part of its customer engagement.

We consider Sunwater's engagement with its Consultative Committee on this topic has generally been appropriate. Sunwater worked closely with this forum to test and refine engagement materials before consulting with the broader customer base. The Consultative Committee provided feedback on how Sunwater should communicate to customers to ensure they understood not just the proposal but its potential impact on prices.[265] In response to this feedback, Sunwater forecast the impact of shifting to a RAB over the upcoming price path and 3 subsequent price path periods[266], to better inform customers of the medium-term impacts of the proposed shift.

Sunwater said that it received no actionable feedback from either the Consultative Committee or customers that would have led them to consider alternative treatments of renewals opex or the annuity closing balances.[267] Sunwater said that the approach that it proposed in the June and July 2023 meetings clearly referenced the fact that there were several options on the table. Sunwater said that feedback from members of the Consultative Committee was either limited in this area or supportive of the proposed approach.

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[260] Sunwater, sub. 9, pp. 47–48; Sunwater, response to RFI 126.
[261] Sunwater, sub. 11, p. 18.
[262] Bundaberg and Burdekin-Haughton schemes contribute around 50% of total water entitlements and around 48% of Sunwater's proposed total costs. In these schemes, only 25% of responding customers agreed with the proposed change.
[263] BRIG, sub. 41, pp. 2–3; BRIA Irrigators, sub. 42, pp. 11–12; Canegrowers, sub. 43, pp. 2–3; Central Downs Irrigators, sub. 46, pp. 1–2; Central Highlands Cotton Growers and Irrigators Association (CHCGIA), sub. 47, p. 2; Cotton Australia, sub. 48, pp. 4–5; QFF, sub. 59, p. 5; Theodore Water, sub. 61, p. 1; Wilmar Sugar Australia, sub. 62, pp. 1–2.
[264] Canegrowers, sub. 43, pp. 2–3; QFF, sub. 59, p. 5; Cotton Australia, sub. 48, pp. 4–5.
[265] Sunwater, sub. 11, p. 18; Sunwater, response to RFI 126.
[266] This was, however, only shown as part of its presentation for the second stage of its customer engagement process.
[267] Sunwater, response to RFI 126.

Typically, highly technical issues such as cost recovery mechanisms are not issues that businesses seek customer input on. As outlined in section 2.1.2, consultation about these issues should focus on the outcomes that customers value and how the proposed instruments impact on these outcomes. We note that Sunwater's customers indicated that key outcomes include price stability and transparency around long-term planning.

In terms of price variability, we have concerns that the existing opex and capex treatment of renewals could have potentially large impacts on the price target between price path periods (as noted in section 7.2.2). While existing government policy would somewhat mitigate these impacts, this would have impacts on the level of the government's subsidy.

7.2.5 Conclusion

While we are supportive of an appropriately designed RAB approach, we do not consider that a RAB approach should be adopted alongside Sunwater's current capitalisation policy because of the impact on price target variability. For this report, we have continued to use the renewals annuity approach to calculate price targets.

We consider that Sunwater should conduct a comprehensive review of the opex and capex treatment of renewals prior to transitioning to a RAB approach, including the treatment of large irregular costs that deliver benefits to customers over multiple years.

We note that an appropriate capitalisation policy would involve capitalising a significant proportion of renewals and that this would require offsetting any short-term reduction in cash flows with a shorter recovery period for negative annuity balances (i.e. less than 75 years). Under this approach the net impact on prices across schemes could vary considerably, so there may need to be different recovery periods (or modifications to the depreciation profile) to manage transitional impacts of moving to a RAB approach. We would expect Sunwater to consult with customers on these transitional issues, to ensure that its approach to managing the transitional impacts is informed by the outcomes sought by customers.

7.3 Opening annuity balance as at 1 July 2025

Our calculation of the opening annuity balance for the price path period is set out in Table 39 below.

Table 39: QCA draft position – calculation of opening annuity balance ($ million, nominal)

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Opening annuity	**(56.6)**	**(60.5)**	**(71.2)**	**(78.9)**	**(76.3)**	**(90.3)**
Plus: annuity revenue	14.5	22.6	23.3	24.3	25.4	26.0
Less: renewals costs	15.9	30.7	27.9	18.2	36.1	27.6
Plus: interest	(2.5)	(2.6)	(3.1)	(3.4)	(3.3)	(3.9)
Closing annuity	**(60.5)**	**(71.2)**	**(78.9)**	**(76.3)**	**(90.3)**	**(95.9)**

Notes: Renewals costs are net of insurance recoveries received. Totals may not add due to rounding.
Source: Sunwater supporting documents (04 Annuity Opening Balance Calculator - Final Numbers); QCA analysis.

Our calculation updated Sunwater's proposed opening annuity balances for 2025–26 by rolling the annuity balance forward over the period 2019–20 to 2024–25. The roll-forward occurs each year by making the adjustments to each year's opening balance, including:

- starting with the opening annuity balance as at 1 July 2019 from the 2020 review
- adding the renewals annuity allowance from the 2020 review
- subtracting our proposed prudent and efficient renewals costs (see Chapter 5)
- adjusting for interest from 2020–21 onwards using the recommended post-tax nominal WACC of 4.37% from the 2020 review.

The opening annuity balance as at 1 July 2025 is comprised of:

- schemes with negative annuity balances totalling $122.1 million
- schemes with a positive annuity balance totalling $26.2 million.

Under Sunwater's proposed RAB approach, schemes with a negative annuity balance as at 1 July 2025 would capitalise that balance into the opening RAB. Schemes with a positive annuity balance would have this balance offset against other costs over the price path period.

7.4 Renewals allowance

Our proposed renewals allowance calculated using a renewals annuity approach is set out in Table 40 below. Scheme level information is in Appendix C.

Table 40: QCA draft position on renewals allowance ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposed (RAB approach)	12.6	23.1	23.6	21.9	**81.3**
Sunwater proposed (annuity approach)	32.1	32.8	33.7	34.4	**133.1**
QCA draft position (annuity approach)	24.0	24.5	25.1	25.7	**99.3**
Difference (annuity approach)	**(8.1)**	**(8.3)**	**(8.6)**	**(8.7)**	**(33.8)**

Notes: The RAB allowance is a net amount comprising the sum of capital revenues and renewals opex, partially offset by a deduction for the return of positive annuity balances in the initial four-year period ($6.4 million each year). Totals may not add due to rounding. Source: Sunwater, sub. 9, pp. 126–127; QCA analysis.

Consistent with the 2020 review, we calculated the renewals allowance using a rolling annuity approach with a 30-year planning period.

Ideally, a renewals annuity approach would be based on a planning period of longer than 30 years. However, such a long timeframe would make it difficult to accurately forecast expenditure and this would be exacerbated over longer periods.

In indexing the annuity, our estimate of inflation of 2.52% is derived by taking the 10-year geometric average of our CPI inflation forecasts (see section 6.2).

7.5 Tax allowance

For the reasons outlined in section 7.2.3, we consider that a zero tax allowance is appropriate for the next price path period (see Table 41).

Table 41: QCA draft position on tax allowance ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposed	–	–	–	–	–
QCA draft position	–	–	–	–	–
Difference	**-**	**-**	**-**	**-**	**-**

Source: Sunwater, sub. 9, p. 126; QCA analysis.

7.6 Revenue offsets

Sunwater submitted that it had reduced its total costs by revenue offsets that are recovered through miscellaneous fees and charges, notably drainage charges in the Burdekin-Haughton distribution system and access charges in the Mareeba-Dimbulah scheme. Sunwater said that revenue from these charges is from services that are wholly or significantly enabled by its core services.[268]

We have accepted the total revenue offset amount across all schemes (Table 42). However, we have reallocated $0.6 million each year in revenue offsets for access charges from the distribution system to the bulk water supply scheme in Mareeba-Dimbulah so that 100% of offsets for the access charge are assigned to the bulk scheme.[269]

Table 42: QCA draft position on revenue offsets ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposed	(1.8)	(1.9)	(1.9)	(2.0)	(7.6)
QCA draft position	(1.8)	(1.9)	(1.9)	(2.0)	(7.6)
Difference	**-**	**-**	**-**	**-**	**-**

Source: Sunwater, sub. 9, p. 124; QCA analysis.

[268] Sunwater, sub. 9, p. 122.
[269] Sunwater, response to RFI 97.

8 Forecast volumes

The chapter outlines our views on the water access entitlements (WAEs) and forecast usage for each tariff group. Both are inputs into the calculation of price targets and prices, in particular:

- in the allocation of some fixed costs between medium and high priority tariff groups in each scheme
- using WAEs as the denominator in deriving fixed (Part A and Part C) price targets
- using forecast usage as the denominator in deriving volumetric (Part B and Part D) price targets.

Except for making an adjustment to WAEs in Bundaberg distribution system, we have accepted the WAEs and forecast usage proposed by Sunwater.

8.1 Water access entitlements

Most WAEs held by irrigators are medium priority WAEs, although there are low volumes of high priority irrigation WAEs in some schemes. Forecast WAEs are used in calculating prices and in allocating some fixed costs[270] between medium and high priority WAE customers in each scheme.

Sunwater said that its forecast WAEs were based on 2022–23 data that had been reconciled with information published on the government's website (where available).[271]

Sunwater proposed the following adjustments to 2022–23 WAE data (and associated water usage) to reflect adjustments for pricing purposes made in the 2020 review (Table 43).

[270] Except for asset-related headworks (bulk) costs, which are generally allocated between medium and high priority WAE customers using the headworks utilisation factor.
[271] Queensland Government, *Current locations*, Business Queensland website, accessed 27 May 2024.

Table 43: Sunwater's proposed adjustments to WAEs consistent with 2020 review

Scheme	Proposed adjustment
Burdekin-Haughton (distribution)	Removed 110,000 ML of medium priority WAEs that Sunwater holds on behalf of the Townsville Thuringowa Water Supply Joint Board, consistent with previous review approaches of not allocating distribution costs to these entitlements.
Bundaberg (bulk)	Excluded WAEs for Paradise Dam, which is owned and operated by Burnett Water Pty Ltd (a wholly owned Sunwater subsidiary). The referral specifically excludes these services from the scope of our investigation.
Bundaberg (distribution)	Included WAEs for distribution services provided to customers with WAEs for Paradise Dam.
Eton	Added 700 ML of high A priority WAEs (equivalent to high priority) to the industrial customer segment, relating to WAEs in the Pioneer River scheme delivered through the Eton scheme.
Lower Mary River (bulk)	Added 1,360 ML of high priority and 2,690 ML of medium priority WAEs for Teddington Weir (owned by Wide Bay Water). Under the existing operations manual, Sunwater must transfer water from the Lower Mary River scheme to the Teddington Weir scheme when certain conditions are met.
Upper Burnett	Excluded WAEs associated with Kirar Weir (owned by Burnett Water Pty Ltd). The referral excludes these services from the scope of our investigation.

Source: Sunwater, sub. 9, p. 42.

We accept the above adjustments as they ensure our allocation of costs and derivation of prices using volume as the denominator result in costs being allocated to the appropriate customers.

While mentioned in Sunwater's main proposal, Sunwater's proposed prices for the Bundaberg distribution system were derived using WAEs and usage forecasts that did not include distribution services provided to customers with WAEs for Paradise Dam. Sunwater accepted, though, that Bundaberg distribution WAEs should also include distribution services provided to customers with WAEs for Paradise Dam.[272] We have added Burnett Water distribution customer holdings of 14,516 ML in 2022–23 to total Bundaberg distribution WAEs.

In addition to incorporating 2020 review adjustments, Sunwater also proposed to:

- removed 504 ML of risk priority WAEs related to the operation of the Mirani diversion channel from the price calculation process for the Eton (high priority B) tariff group
- reallocated 11,508 of medium priority distribution loss WAEs in the Mareeba-Dimbulah bulk scheme to usable irrigation customer WAEs in the bulk scheme.[273]

We have accepted Sunwater's price calculation approach for the Eton (high priority B) and Eton risk WAE tariff groups (section 9.4.3) and therefore accept the volume adjustment.

Sunwater's proposed reduction of distribution loss WAEs in the Mareeba-Dimbulah bulk scheme lowers distribution system costs by reducing the bulk costs of distribution loss WAEs paid for by distribution system customers. We consider it reasonable to assign the reallocated WAEs to only the bulk portion of the scheme given that these WAEs have not yet been sold to customers.

[272] Sunwater, response to RFI 96.
[273] Sunwater, sub. 9, p. 42.

8.2 Usage

To establish a meaningful water use denominator to derive volumetric price targets, we consider that the approach to estimating the assumed level of water use should be representative of normally occurring conditions, consistent with our approach to estimating baseline year costs.

Sunwater commissioned a consultant, Kellog, Brown and Root (KBR), to review the previous approach of calculating the usage forecast as the average of the previous 20 years of water demand for each scheme.[274] KBR found that water demand over the last 20 years was volatile, with the total water demand trendline near horizontal.[275] Based on its findings, KBR considered the 20-year average of water demand as the most practical demand forecasting approach and recommended that it be adopted by Sunwater in its proposal to us.[276]

Sunwater has proposed usage forecasts for all schemes using a simple 20-year average of previous usage estimates.[277]

We have accepted the continued use of a 20-year average to derive forecast usage as it covers a reasonably large number of observations to cover a range of conditions that would impact water usage. We consider that a simple averaging approach results in revenue and pricing outcomes that are both simple and transparent to customers.

8.3 Draft forecasts

Our proposed WAEs and usage percentages for each scheme are presented in Table 44, with a comparison of the usage percentages with those applied to derive prices in the 2020 review.

Table 44: WAEs and usage percentages of WAEs by scheme

Scheme	Service	WAEs (ML)[a]	Usage as percentage of WAEs	
			QCA draft	2020 review
Barker Barambah	Bulk	34,315	32.5	42.0
Bowen Broken	Bulk	38,930	40.0	37.2
Boyne River	Bulk	43,405	50.3	55.8
Bundaberg	Bulk	236,329	48.0	47.1
Bundaberg	Distribution	165.800	48.0	48.0
Burdekin-Haughton	Bulk	1,079,592	53.1	54.9
Burdekin-Haughton	Distribution	335,000	62.2	65.0
Callide Valley	Bulk	19,449	63.1	62.4
Chinchilla	Bulk	4,049	55.9	57.5
Cunnamulla	Bulk	2,612	60.7	58.7
Dawson Valley	Bulk	61,737	61.0	61.6
Eton	Bulk	62,759	35.9	41.9
Lower Fitzroy	Bulk	28,621	65.0	66.4

[274] Sunwater, sub. 9, p. 41.
[275] Sunwater, sub. 13, p. 12.
[276] Sunwater, sub. 13, p. 12.
[277] Sunwater, sub. 9, p. 41.

Scheme	Service	WAEs (ML)[a]	Usage as percentage of WAEs	
			QCA draft	2020 review
Lower Mary River	Bulk	34,449	25.8	33.1
Lower Mary River	Distribution	15,262	29.8	31.2
Macintyre Brook	Bulk	24,997	53.6	63.0
Maranoa River	Bulk	805	2.8	3.3
Mareeba-Dimbulah	Bulk	204,424	62.0	64.7
Mareeba-Dimbulah	Distribution	146,954	62.6	63.0
Nogoa-Mackenzie	Bulk	231,859	63.5	72.7
Pioneer River	Bulk	78,110	30.1	34.0
Proserpine	Bulk	62,876	38.5	42.1
St George	Bulk	84,575	85.8	88.6
Three Moon Creek	Bulk	15,028	39.9	41.8
Upper Burnett	Bulk	28,740	54.9	56.7
Upper Condamine	Bulk	33,960	41.0	45.0

a Includes WAEs held by medium and high priority customers. Includes all distribution loss WAEs, including those for which the cost is borne by Sunwater (see section 9.1).
Source: Sunwater, sub. 9, p. 43; Sunwater, 14 Water Access Entitlements_IPP25 Pricing Inputs Final Values, November 2023.

9 Draft price targets

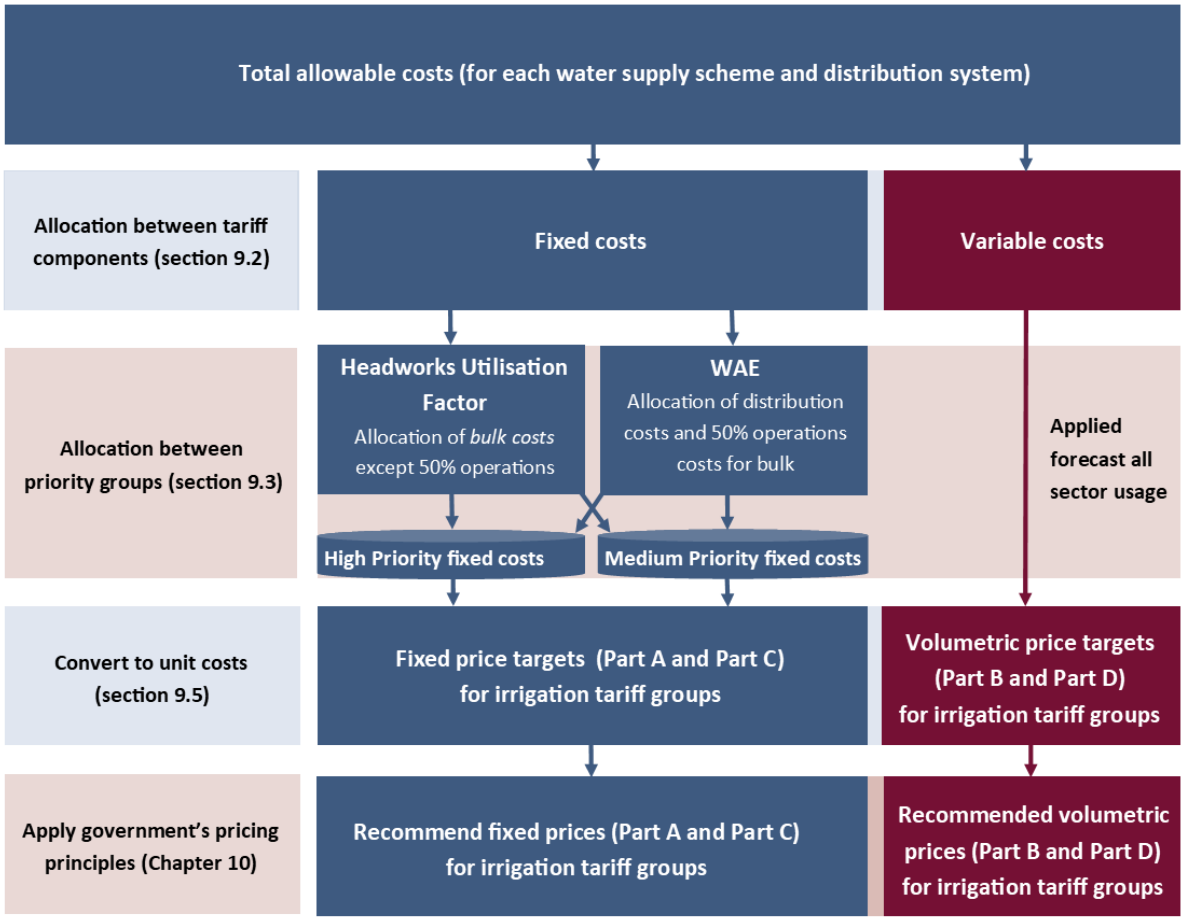
This chapter outlines how we have converted total allowable costs to our draft price targets for each tariff group over the price path period.

To derive allowable costs at the scheme level, we first made some adjustments between schemes to ensure that costs were allocated to the appropriate beneficiaries (section 9.1). We then converted allowable costs at the scheme level to a price target for each tariff group by:

- allocating costs between the fixed and volumetric tariff components (section 9.2)
- allocating costs between priority groups (that is, high priority and medium priority customer groups) (section 9.3)
- allocating costs between tariff groups (where applicable), or other scheme-specific adjustments (section 9.4)
- converting allocated costs into a unit cost for each tariff component (for example, a cost per megalitre (ML) of water usage), then smoothing these unit costs over the price path period to derive the price target for each tariff group (section 9.5).

We then applied the government's pricing principles to establish the transitional path to the price target for each tariff group and derive draft prices (Chapter 10). Our general approach to deriving draft prices is shown in Figure 26.

Figure 26: Our general approach to deriving draft irrigation prices



9.1 Total allowable costs at the scheme level

Sunwater's total allowable costs are shown in Chapter 7. To derive allowable costs at the scheme level, we have adjusted for:

- distribution loss transfers
- cost transfers between distribution systems and associated bulk schemes.

Other scheme-specific adjustments are considered in section 9.4.

9.1.1 Distribution loss transfers

Sunwater owns distribution losses to account for water losses incurred in the delivery of water in distribution systems. Such losses may occur due to pipe leakage, evaporation, storage seepage, overflows and drainage for maintenance. Sunwater's distribution loss water access entitlements (WAEs) were granted to it under the *Water Act 2000* (Qld) and are applicable to each distribution system Sunwater operates. The purpose of holding distribution loss WAEs is to ensure that Sunwater's distribution system customers receive a reliable water supply.

An adjustment must be made to total allowable costs for distribution loss transfers. This adjustment includes:

- removing costs of all distribution loss WAEs from the bulk water supply scheme
- adding costs of the efficient level of distribution loss WAEs to the distribution system.

Sunwater has proposed that each distribution loss WAE be allocated an equal share of costs associated with the water supply service, with those costs intended to be borne by distribution system customers, who are the users of those losses. Sunwater has therefore removed distribution loss revenue from the bulk water supply scheme and added it to the revenue requirement for the distribution system, meaning that distribution system customers pay the cost of these WAEs through their Part C and Part D charges.[278]

We support Sunwater's approach of transferring the water supply costs associated with distribution losses from bulk water supply to distribution customers. This is reasonable, as distribution system customers are the beneficiaries of distribution loss WAEs. It is also consistent with the approach Sunwater adopted, and we supported, in the 2020 review.

The 2020 review recommended that only prudent and efficient bulk costs associated with distribution loss WAEs should be recovered from distribution system customers and that the bulk costs of distribution loss WAEs not required to service distribution system customers should be borne by Sunwater. We calculated the efficient level of distribution loss WAE holdings as the maximum distribution loss WAEs required, after adjusting for distribution system water usage.[279] We also said that Sunwater should review its distribution loss WAEs and develop a strategy for how to treat them.

Sunwater said it had commenced a review of distribution losses to confirm the total volume required to run its distribution systems in the long run. Our understanding is that this process is ongoing and that the efficient level of distribution losses in Sunwater's proposal is based on the approach recommended in the 2020 review.

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[278] Sunwater, sub. 9, p. 122.

[279] This adjustment reflects the fact that when announced allocations are less than 100%, the water to provide for losses is less than the distribution loss WAEs. As water available to customers is also reduced, usage within the system will decrease.

The Lower Mary and Mareeba-Dimbulah schemes were found to have no excess distribution loss WAEs in the 2020 review. Sunwater said this remains the case for these schemes. Sunwater noted that because of efficiencies achieved through the Mareeba-Dimbulah efficiency improvement project, it is in the process of converting 11,508 ML of loss WAEs to usable irrigation WAEs. Sunwater has made a regulatory adjustment to reflect this ahead of the finalisation of this process and, as a result, distribution customers will no longer pay the bulk costs associated with these distribution loss WAEs.[280]

For the Bundaberg scheme, Sunwater holds 7,632 ML of excess distribution losses for this price period. It proposed to continue to bear the costs of these entitlements due to its policy of retaining its entitlements in the Bundaberg scheme until the Paradise Dam Improvement Project and associated works have been completed. For the Burdekin-Haughton scheme, Sunwater said that distribution losses have not exceeded the previously recorded maximum amount; therefore, the findings from the 2020 review can be retained – that is, 40% of medium priority distribution loss WAEs (approximately 75,370 ML) should be borne by Sunwater. It considered there would be limited opportunities to sell any distribution loss WAEs for this scheme that have been converted to another purpose given the lack of demand.[281]

Bundaberg Regional Irrigators Group (BRIG) noted that the current efficient level of distribution losses in the Bundaberg scheme may be excessive given the range of actual achieved efficiency between years.[282] BRIA Irrigators considered that the amount of distribution losses attributed to the Burdekin-Haughton scheme by Sunwater is excessive. It said that the loss allocation attributed to the distribution system should be reduced to the average of the last seven years, noting ongoing efficiency improvements by Sunwater. It considered that Sunwater has no incentive to reduce the loss allocation, as there is no market for this additional water.[283]

We continue to support an approach that allows the prudent and efficient costs associated with an efficient level of distribution loss WAEs to be recovered from distribution customers. In the absence of any alternative approach proposed by Sunwater for this review, we consider that the best approach is for us to continue to estimate the efficient level of distribution losses with reference to the maximum distribution loss WAEs required (after adjusting for system usage), based on historical data for each scheme. While this approach may not reflect any recent efficiency improvements, it provides greater certainty that Sunwater will hold a sufficient volume of distribution loss WAEs to provide for actual losses in the system. There may be variations in actual distribution losses from year to year depending on circumstances.

Our updated assessment (based on the 2020 review methodology) using the most recent data on maximum distribution losses for the period 2011–12 to 2022–23 shows no change in the efficient level of distribution loss WAEs for the Bundaberg and Burdekin-Haughton schemes. Our estimate of the efficient level of distribution loss WAEs for each of the distribution systems is shown in Table 45.

[280] Sunwater, sub. 9, p. 44.
[281] Sunwater, sub. 9, p. 45.
[282] Bundaberg Regional Irrigators Group (BRIG), sub. 41, p. 5.
[283] BRIA Irrigators, sub. 42, p. 4.

Table 45: Efficient distribution loss WAEs in Sunwater schemes – QCA draft position

Distribution system	2020 review		QCA draft position	
	High priority loss WAEs (%)	Medium priority loss WAEs (%)	High priority loss WAEs (%)	Medium priority loss WAEs (%)
Bundaberg	100	70	100	70[a]
Burdekin-Haughton	100	60	100	60
Lower Mary	100	100	100	100
Mareeba-Dimbulah	100	100	100	100

a Our assessment excludes data from 2019–20, as in that year Sunwater lowered Paradise Dam's water storage for works to reduce the risk of dam failure. The released water was offered to customers free of charge, resulting in a higher distribution loss delivery volume than distribution loss allocations available.

Sunwater is best placed to manage the risk of holding excess distribution loss WAEs. We therefore support Sunwater continuing to review its approach to establish the total volume required to operate its distribution systems in the long term. We consider that Sunwater's strategy for its holdings of distribution loss WAEs should address the efficient level of its distribution loss WAE holdings; least–cost service delivery; and outcomes of its customer engagement.

Should this review process identify further holdings of excess distribution loss entitlements, it is open to Sunwater to apply to change the purpose of these entitlements under the water planning framework.[284] In the absence of an alternative methodology proposed by Sunwater, we consider it appropriate to continue to apply the methodology we used in the 2020 review for establishing the efficient level of distribution losses.

9.1.2 Other transfers

Adjustments must also be made in certain schemes to transfer costs between distribution system and bulk water scheme customers where distribution system assets also provide a bulk water function (Bundaberg and Lower Mary distribution systems). In the Mareeba-Dimbulah scheme, an adjustment must be made to account for water released for the Barron Falls Hydroelectric Power Station.

Bundaberg

The water planning framework provides for the Gin Gin main channel (in the Bundaberg distribution system) to also serve a bulk water function. The water plan allows for Sunwater to make releases from Fred Haigh Dam into the channel, and then make releases at the end of the channel into Sheepstation Creek to supplement Bundaberg bulk water allocations that access water from the Burnett River.[285] A portion of the costs of the Gin Gin main channel should therefore be included in bulk water costs.

In the 2020 review we accepted that a cost allocation of 5% was appropriate, given there had been minimal releases since 2012–13. Sunwater said that this situation has not materially changed since

[284] The *Water Act 2000* (Qld) (section 159) and the relevant water management protocol for each scheme provide for a distribution loss allocation holder to apply to change the purpose of distribution loss WAEs. While the criteria are unique to each scheme, they generally specify that Sunwater must provide evidence of permanent efficiency gains and that a sufficient volume of distribution loss WAEs must be held to provide for actual losses in the system.

[285] Burnett Basin Water Plan 2014, Schedule 9, Part 3.

the 2020 review, and so it has proposed to maintain the 5% allocation of distribution costs to be transferred to bulk water costs in this review.[286]

Given the requirements of the water plan and the fact that there has been no material change in transfers since the 2020 review, we consider that 5% is an appropriate allocation.

Lower Mary

In the 2020 review we accepted that the Owanyilla pump station and main channel (part of the Lower Mary distribution system) also perform a bulk water supply function, as they supplement the Tinana Barrage and Teddington Weir. We therefore accepted the transfer of a portion of the Owanyilla pump station and main channel costs to the bulk tariff group for the Tinana Barrage and Teddington Weir.

Sunwater has proposed the same approach and has calculated the transfer amount based on:

- 53% of the water pumped by the Owanyilla pump station supporting Tinana Barrage and Teddington Weir customers (down from 59% at the 2020 review)
- 21% of non-electricity opex allocated to the Lower Mary distribution service being attributable to the Owanyilla pump station (36% at the 2020 review)
- 41% of electricity costs allocated to the Lower Mary distribution service being attributable to the Owanyilla pump station
- renewals revenue (both capital returns and renewals opex) being transferred using the 53% volumetric factor.[287]

We have reviewed the updated amounts proposed by Sunwater for this adjustment, and we consider these to be reasonable.

Mareeba-Dimbulah

The Tinaroo Falls Dam releases (unallocated) water to the Barron Falls Hydroelectric Power Station. While environmental releases to meet river flow requirements can be used to generate hydro-electricity, additional releases for hydro purposes may be made.

We have previously accepted that the headworks utilisation factor (HUF) approach takes account of the expected hydro volumes. However, costs allocated based on water allocations (i.e. variable operating costs and fixed operations costs) do not take into account these volumes. To account for this, Sunwater has previously proposed an approach of attributing a share of opex of the Mareeba-Dimbulah bulk water supply scheme to the Barron falls hydro-electric facility based on the most recent six-year average of annual hydro releases. We accepted that approach.

For this review, Sunwater has proposed the same approach to this adjustment and has extended the averaging period to include more recent data, resulting in a proposed transfer of 24% of relevant operating costs.[288]

We consider that an average of the hydro releases as a proportion of total water taken under WAEs remains an appropriate cost allocation approach. We have reviewed the proposed amount and consider it to be reasonable.

[286] Sunwater, sub. 9, p. 123.
[287] Sunwater, sub. 9, p. 123.
[288] Sunwater, sub. 9, p. 123.

9.2 Allocation of costs between tariff components

Costs must be allocated between fixed and variable (volumetric) tariff components. Our approach to the allocation of costs between tariff components is to take account of the underlying nature of the cost structure – that is, whether costs are fixed or variable with usage. This is consistent with the requirement in the referral for us to consider the fixed and variable nature of the underlying costs in relation to tariff structures.[289]

The allocation of costs between fixed and volumetric components may also vary between schemes.

Sunwater has not proposed any change to its allocation categories or percentages from the 2020 review.[290] Stakeholders have not provided any comments specifically on this matter.

Electricity costs

Electricity costs are a significant component of Sunwater's overall operating costs, due to the cost of pumping water. This is mostly applicable to distribution systems; however, there is also some relatively minor electricity use in bulk schemes (for example, where pumping is required to supplement stream flows). We have had regard to the underlying fixed and variable nature of electricity costs in allocating electricity costs between tariff components. We are satisfied that the approach in the 2020 review, which Sunwater has adopted for this review, remains appropriate.

We have therefore accepted Sunwater's approach whereby electricity costs for distribution systems and specific bulk scheme tariff groups[291] are assigned between fixed and variable costs based on the fixed and variable nature of the underlying electricity tariff components. For remaining bulk schemes, we have accepted Sunwater's proposal to maintain the 2020 review approach of assigning all electricity costs to fixed costs.

Other costs

In the 2020 review, we allocated 20% of direct operations and maintenance opex to variable costs for bulk schemes and distribution systems. While we acknowledged that allocation of costs between fixed and variable components involved a degree of judgement, we considered this cost allocation appropriate, with a view to balancing complexity, cost and transparency. Sunwater has not proposed any change to this allocation approach for this review.[292]

We consider this approach remains appropriate, as we understand that there has been no significant change to service delivery, including operational and maintenance practices, since the 2020 review that would warrant a change in this cost allocation approach. Stakeholders have not raised this issue or proposed any alternative approach. We therefore recommend that 20% of direct operations and maintenance costs be assigned to variable costs.

Summary

Table 46 shows our proposed cost allocations for Sunwater.

[289] Referral, para. C (1.1)(a).
[290] Sunwater, sub. 9, p. 131.
[291] Barker Barambah (Redgate relift tariff group) and Upper Condamine (North Branch tariff groups) bulk schemes.
[292] QCA, *Rural irrigation price review 2020-24, Part B: Sunwater*, final report, January 2020, p. 136.

Table 46: Allocation of costs to the volumetric tariff component – QCA draft position (%)

Activity	Sunwater proposal	QCA draft
Operations and maintenance[a]	20	20
Electricity pumping costs	Scheme-specific	Scheme-specific
Other electricity costs	–	–
Insurance	–	–
Overhead and indirect costs	–	–
Renewals allowance	–	–

a Excludes electricity and insurance costs.

9.3 Allocation of costs between priority groups

WAEs held by Sunwater's customers are defined in terms of the reliability or priority group of the entitlement. These are usually designated as being either medium or high priority WAEs. Holders of high priority WAEs receive a higher level of service in terms of reliability – for example, they typically can rely on being able to access their nominal volume more often than holders of lower priority WAEs; they tend to be allocated a larger share of their WAEs than lower priority WAE holders; and they often receive 100% of their nominal volume before medium priority customers get any water.

Similar to the 2020 review, Sunwater has proposed to allocate costs between priority groups using the HUF. Sunwater defined HUFs as the percentages of a scheme's storage headworks' volumetric capacity able to be utilised by each priority group of WAEs in that scheme, taking into consideration:

- the application of water-sharing rules and other operational requirements set out the relevant operations manual
- the probability of utilisation of the scheme storages under conditions of relative supply shortage.[293]

Sunwater has not proposed any changes to the way HUFs have been calculated or applied but has reviewed the inputs to calculating the HUF to determine if there are any material changes to water entitlement groupings (high and medium priority entitlements), usage and sharing rules and hydrological performance. From this review, Sunwater identified three schemes that it said required a recalculation of the HUF. Reasons for the recalculations are outlined in Table 47. We have confirmed the revised HUF calculations are appropriate, as they are consistent with the standard HUF methodology.

Table 47: Schemes with HUFs recalculated for this review

Scheme	Allocation to medium priority		Reason for change
	2020 review	Revised	
Chinchilla Weir	12%	16%	Revision required due to a change in the model simulation period and the updated hydrologic model.
Mareeba-Dimbulah	47%	34%	Revision required due to a new water plan that results in an updated hydrologic model and a change in the model simulation period.

[293] Sunwater, sub. 9, Appendix E, p. 4.

Scheme	Allocation to medium priority		Reason for change
	2020 review	Revised	
Upper Condamine[a]	8%	8%	Revision required due to a new water plan that results in an updated hydrologic model and a change in the model simulation period.

a The HUF was recalculated but did not change in value.
Source: Sunwater, sub. 9, p. 45 and sub. 14; QCA, *Rural irrigation price review, Part B: Sunwater*, final report, January 2020, p. 144.

The HUF methodology estimates the relative share of storage assets in each scheme required to supply medium and high priority WAEs. This approach allocates a higher proportion of asset-related costs to high priority customers as they receive greater benefit from the assets. We consider that the allocation of asset-related costs between priority groups using the HUF is an appropriate approach as it reflects the underlying cost drivers for different priority WAEs. It reflects that the storage capacity required for each megalitre (ML) of high priority WAE is larger than that for medium priority WAE. This is the same approach we adopted in the 2020 review, and we consider it remains appropriate for this review.

Central Downs Irrigators Limited said that we should review the HUF and how costs are attributed to it in the Upper Condamine scheme.[294] They said that risk A priority WAEs are solely supplied by the river and should be not allocated costs associated with Leslie Dam. We have confirmed that the revised HUF calculation for Upper Condamine does not include nominal volumes for risk A priority WAEs, consistent with the approach in previous reviews.[295] In addition, consistent with previous reviews, we have derived a lower fixed (Part A) price for this tariff group reflecting no recovery of renewals costs.

Table 48 summarises Sunwater's proposed approach to allocating fixed costs between high and medium priority WAEs, which is consistent with the approach we applied in the 2020 review.

We consider this approach reasonable, as for bulk schemes it allocates asset-related costs using the HUF and service–related costs based on the WAE. We note that Sunwater proposed recovering the build costs of its new billing system, CASPr, in its renewals allowance, with the recovery of all other non-infrastructure opex and capex (such as expenditure on other information and communication technology (ICT) assets) through overhead and indirect costs.[296] In relation to the renewals allowance, while we consider it appropriate to use the HUF approach to allocate costs related to infrastructure assets between medium and high priority customers, we do not consider it appropriate to use this approach to allocate costs related to non-infrastructure assets (such as ICT assets), as these are primarily service related.

We consider it appropriate to allocate all costs in distribution systems based on the WAE.

[294] Central Downs Irrigators Limited, sub. 46, p. 3.
[295] Sunwater, sub. 14, p. 10.
[296] Sunwater proposed to recover this using its proposed RAB approach (Sunwater sub. 9, p. 66). In deriving its proposed prices under a renewals annuity approach, it also incorporated its proposed build costs for its new billing system in the renewals annuity (see Sunwater, sub. 10). However, as mentioned in Chapter 4, we have not accepted Sunwater's proposal to allocate its new billing system costs in a way that is inconsistent with its standard cost allocation methodology.

Table 48: Fixed cost allocation between high and medium priority groups – QCA draft position

Cost component	Fixed cost allocation methodology	
	Bulk schemes	Distribution systems
Operations[a]	50% by HUF, 50% by WAE[b]	WAE (excluding distribution losses)
Maintenance	HUF	WAE (excluding distribution losses)
Electricity	HUF	WAE (excluding distribution losses)
Insurance	HUF	WAE (excluding distribution losses)
Maintenance	HUF	WAE (excluding distribution losses)
Renewals allowance	HUF	WAE (excluding distribution losses)

a Excludes electricity and insurance. b Includes distribution losses.

9.4 Allocation of costs between tariff groups

Costs may also need to be further allocated to tariff groups to reflect other cost differences within a scheme or priority group. Where such differences exist, we have adopted a scheme-specific approach to further allocate costs to tariff groups.

Scheme-specific adjustments considered in this section include:

- tariff reform matters, either identified by us in the 2020 review or identified as an issue by Sunwater or its customers – this includes the Mareeba-Dimbulah scheme (section 9.4.1), Burdekin–Haughton scheme (9.4.2) and the Eton scheme (section 9.4.3)
- Sunwater's proposed treatment of other scheme-specific cost allocation adjustments between different tariff groups (section 9.4.4).

In terms of us considering new tariff groups, the referral includes the following requirement in its definition of the price target:

> Where new tariff groups are to be considered, the authority is to avoid shifting costs from one customer or group of customers to another, within a water supply scheme, in the absence of the Businesses having significant commercial interest in the change, and in the absence of agreement from customers.[297]

Sunwater said it is reasonable to apply the requirement in the referral in relation to new tariff groups to pre-existing tariff groups also – that is, it considered that changes to the sharing of costs between existing tariff groups should not be pursued in the absence of a compelling commercial reason on Sunwater's part, and customer support or acceptance of the need for a change.[298]

In our view, the referral requirement applies to the consideration of new tariff groups and does not, in principle, constrain us in recommending changes to existing tariff groups should we consider that to be appropriate. In our assessment of scheme-specific adjustments, we have had regard to a range of matters, including efficient resource allocation, the protection of consumers, the cost and standard of the service, and environmental and social welfare considerations.[299] We have also had regard to the outcomes of Sunwater's customer engagement.

[297] Referral, section 1.
[298] Sunwater, sub. 9, p. 128.
[299] QCA Act, s. 26(1).

9.4.1 Mareeba-Dimbulah

We generally support Sunwater's proposed approach to pricing and cost allocation for the Mareeba-Dimbulah water supply scheme, which maintains the approach we recommended in the 2020 review.

The Mareeba-Dimbulah water supply scheme has an access charge and six tariff groups, five of which relate to the distribution system. In the 2020 review, we recommended that Sunwater engage with its customers and consider reforms to the Mareeba-Dimbulah tariff group, namely:

- in consultation with customers, Sunwater should consider the interests of customers and provide greater transparency as to the costs underlying the three distinct tariff groups in the channel outside the relift section of the distribution system
- Sunwater should investigate the cost of supply to customers in the Walsh River and supplemented streams tariff group in the distribution system. If this assessment does not confirm the current cost allocation, Sunwater should engage with its customers and propose an alternative cost allocation for the next review.

Sunwater has not proposed any changes to the Mareeba-Dimbulah tariff groups or the cost allocators for these groups. Sunwater said its customer engagement did not identify a strong desire for tariff reform at this time. Further, it said its priority has been continuation of the service during covid-19 and delivery of efficiency improvements. Sunwater proposed to continue to engage with its customers and said it may explore these issues further at a future review.[300]

We have given weight to the outcomes of Sunwater's customer engagement on tariff reform in this scheme. Given no submissions were received from stakeholders on this matter, and Sunwater's view that there is no clear customer desire for tariff reform at this time, we accept that continuing with the current approach for this price path period is reasonable in these circumstances. We welcome any further stakeholder comments on this matter.

In line with this approach, we have accepted Sunwater's general approach[301] to deriving proposed price targets for tariff groups in this scheme:

- Access charge (reflecting the cost of managing a customer account) – the uniform access charge that applies to all scheme customers is to be maintained in real terms.
- River – Supplemented Streams and Walsh River tariff group – fixed (Part C) and volumetric (Part D) components of the price target are set to recover 60% of the distribution system charges.
- Outside a relift tariff groups – the existing pricing differential for the fixed (Part C) component between the three tariff sub-groups is to be maintained.
- Channel (relift) – all scheme-based electricity costs are allocated to relift customers on the basis that they use most of the electricity in the scheme.

Sunwater has also proposed to allocate a portion of opex for this scheme to the Barron Falls Hydroelectric Power Station, which receives releases of unallocated water from the Tinaroo Falls Dam (section 9.1.2).

[300] Sunwater, sub. 9, p. 129.
[301] We have made some adjustments to the calculation of tariff groups in the distribution system to ensure that the draft price targets fully recover the irrigation share of allowable costs in the distribution system.

9.4.2 Burdekin–Haughton distribution system

There are three tariff groups in the Burdekin–Haughton distribution system:

- Burdekin Channel
- Burdekin Channel – Glady's Lagoon (other than Natural Yield)
- Burdekin Channel – Giru Groundwater.

Sunwater preferred to continue the current cost allocation and pricing practices in this scheme, which result in prices for these tariff groups transitioning over time to the same price target.[302] However, stakeholders in this distribution system had divergent views on the appropriate approach to cost allocation and pricing, with stakeholders in the Burdekin Channel Giru Groundwater tariff group (Giru Groundwater tariff group) seeking a lower price target than the other tariff groups.

Burdekin Channel – Giru Groundwater

In the 2020 review we recommended that the Giru Groundwater tariff group be treated as part of the distribution system and that the same price target apply across the Burdekin–Haughton distribution system.

Stakeholders in the Burdekin–Haughton distribution system had divergent views on the appropriate approach to cost allocation and pricing in this review. Giru Benefited Groundwater Area (GBGA) stakeholders did not support our recommended pricing approach in the 2020 review. They considered that the price should reflect the previously recognised natural (unsupplemented) yield and differences in cost and service levels for this tariff group compared to other Burdekin channel customers.[303] Other stakeholders supported our recommendations in the 2020 review.[304]

Sunwater acknowledged that customers in the Giru Groundwater tariff group continue to raise concerns with the alignment of their price target with that of the other tariff groups in the distribution system. However, it considered that current pricing practices are an appropriate pricing response to the policy settings contained in the Water Plan (Burdekin Basin) 2007 and that it did not have any information that would support a change to the findings in the 2020 review in relation to cost and service levels. Sunwater has therefore proposed to continue the current cost allocation and pricing approach for this scheme.[305]

A detailed assessment of the issues raised in relation to the Giru Groundwater tariff group is in Appendix D. An overview of our preliminary views is given below.

Water planning and regulatory framework

We consider it appropriate to recognise pre-existing rights to free water where they are part of a current agreement, legislation or government policy. However, the current water planning framework no longer recognises the 19,700 ML of unsupplemented yield in the GBGA that was previously acknowledged in the 2004 Interim Resource Operations licence for the Burdekin–Haughton water supply scheme, with all entitlements treated as supplemented. The referral also does not specify any free water allocations for this tariff group. We consider that we should recommend prices that are consistent with the water planning and regulatory framework. This

[302] Sunwater, sub. 9, p. 130.
[303] Giru Benefited Area Committee, sub. 51; Queensland Cane Agriculture and Renewables Limited (QCAR), Australian Cane Farmers Association Limited (ACFA) and AgForce Cane Board Limited (ACL) joint submission, sub. 58.
[304] BRIA Irrigators, sub. 42, pp. 4, 8–10.
[305] Sunwater, sub. 9, p. 130.

framework does not provide a basis for us to recognise an amount of unsupplemented yield as effectively free water for the Giru Groundwater tariff group.

Differential pricing

Our preliminary view is that there is likely to be some difference in cost and service levels for customers in the Giru Groundwater tariff group compared to other distribution system customers given the different nature of the operational system. However, taking into account the assets required to serve customers in this tariff group, our draft position remains that any such difference is not sufficiently material to warrant a different (lower) price for the Giru Groundwater tariff group.

Extent of supplementation by the channel system

Our assessment of the extent of supplementation of Haughton Zone A (including the GBGA) by the channel system, using updated data, indicates that on average, water diverted from the channel system is around 97% of total water used by customers along the Haughton River. It therefore remains the case that Haughton Zone A (including the GBGA) is a system that is materially supplemented by water delivered by the channel system.

Summary

Based on the information available to us at this time, our preliminary view is that:

- as the current water planning and regulatory framework treats all entitlements in Haughton Zone A (including GBGA) as supplemented, there does not appear to be a basis for providing a discount to the Giru Groundwater tariff group customers to account for 'unsupplemented yield'
- price differentiation for the Giru Groundwater tariff group is not warranted, when all relevant costs are considered
- Haughton Zone A (including the GBGA) remains materially supplemented by water delivered by channel infrastructure.

Burdekin Channel – Glady's Lagoon (other than Natural Yield)

The Glady's Lagoon irrigation section of the distribution system is a natural watercourse and lagoon located between the Haughton main channel (HMC) and Ravenswood Road within the Burdekin–Haughton distribution system.

Sunwater has not proposed any change to the current pricing approach for the price path period. It advised that this tariff group comprises 1,752 ML in WAEs, and that current pricing arrangements recognise 360 ML of natural yield, which is provided free to the two customers in this tariff group.[306]

In the 2020 review, in the absence of updated hydrological assessments of natural yields at Glady's Lagoon, we recommended that Sunwater maintain its pricing approach. We also recommended that Sunwater investigate the cost to supply this tariff group and engage with its customers about an alternative approach should this not confirm the current cost allocation.

BRIA Irrigators submitted that as the unsupplemented yield from Glady's Lagoon will vary from year to year, the customers in this tariff group should pay the Burdekin channel tariff for all metered releases from the HMC into the lagoon. Any usage above this should be deemed system yield and not attract a charge. BRIA Irrigators also noted that Sunwater is considering lowering the level of

[306] Sunwater, response to RFI 112.

Glady's Lagoon as part of its groundwater project and that this will reduce the amount of system yield.[307]

Sunwater has not proposed any change to the existing pricing approach for this tariff group and has not provided updated information on any expected change in yield due to its groundwater project.

Should the system yield change in future due to Sunwater's groundwater project, then this may provide a basis for reconsidering the pricing approach for this tariff group. Sunwater said it has not conducted a detailed cost-to-serve review of the Burdekin distribution service and does not have an allocation methodology to assign channel costs between sub-schemes.[308] In the absence of updated information on Sunwater's cost of supply to this tariff group, we propose to maintain the existing pricing arrangements on the basis of stability in pricing and consistency of approach.

Groundwater

Rising groundwater has been identified as an issue in the Burdekin–Haughton scheme, posing a risk to the productivity and sustainability of agriculture in the Lower Burdekin region.[309] Stakeholders have identified the lack of a pricing incentive to use groundwater as a barrier to growers drawing groundwater for irrigation needs. Canegrowers Burdekin considered that the environmental benefit of dewatering undertaken by growers should be captured as a community service obligation (CSO). BRIA Irrigators did not support a tariff adjustment to provide an incentive to pump groundwater, noting that fixed and variable costs should be accurately apportioned.[310]

Differential pricing is an option that may incentivise the use of groundwater over surface water and thereby assist in addressing the issue of the rising water table. A cost-reflective price for groundwater would need to take into account the cost of any distribution infrastructure used to supplement the groundwater aquifer. This may vary between sub-schemes in the Burdekin-Haughton distribution system.

In practice, differential pricing would require establishing a new tariff group for groundwater and a reallocation of costs between Burdekin–Haughton distribution system customers. The referral requires us, when considering a new tariff group, to avoid shifting costs from one customer or group of customers to another within a scheme in the absence of the business having a significant commercial interest in the change and in the absence of agreement from customers. These requirements do not appear to be met in this scheme at present. We further note that CSOs are a matter for government.

9.4.3 Eton risk priority

The Eton water supply scheme provides customers with non-standard bulk water services in the form of risk priority allocations (risk priority) for water sourced via the Mirani diversion channel. It also has High A (high priority) and High B (medium priority) WAEs.

Sunwater has proposed tariff reform in the Eton scheme that is intended to address what it said is a structural under-recovery of revenue. Sunwater believed the under-recovery is due to the practice of assigning fixed costs to the 504 ML in entitlements held by the risk priority WAE holders, the 100%

[307] BRIA Irrigators, sub. 42, p. 10.
[308] Sunwater, sub. 9, p. 130.
[309] Department of Regional Development, Manufacturing and Water, *Rising groundwater in the Lower Burdekin*, Queensland Government, DRDMW website, accessed 18 April 2024.
[310] Canegrowers Burdekin, sub. 44, pp. 1–2; QCAR, ACFA and ACL joint submission, sub. 58, pp. 7–8; Attachment 1, p. 2; BRIA Irrigators, sub. 42, p. 16.

volumetric tariff applied and the typically low usage in this group (given the highly uncertain nature of this water). The proposed change also reflects that Part C and Part D charges no longer apply given Sunwater no longer manages the distribution system in this scheme.

Sunwater's proposal includes:

- calculating the risk priority tariff as the sum of Part A and Part B price target components, but recovering these as a 100% volumetric price[311]
- removing the 504 ML in risk priority entitlements from the calculation of prices for High A and High B entitlements to address a structural under-recovery of fixed costs
- treating any revenue earned from risk priority entitlements as a revenue offset.[312]

We accept that Sunwater has experienced an under-recovery of revenue arising from the structure of this tariff in the current price path period. This is due to the combination of the allocation of fixed costs to the risk priority tariff group,[313] the 100% volumetric tariff that applies to this tariff group and historically low average annual usage (at 9% of the total of 504 ML risk priority entitlements). Sunwater's proposed tariff reform for this tariff group is a reasonable approach to address this issue:

- The calculation of the 100% volumetric price as the sum of Part A and Part B price targets continues the past practice of fully volumetric pricing for this tariff group, adjusted to reflect the divestment of the channel system to local management (previously, prices were set as the sum of Part A, Part B, Part C and Part D charges). We note that this treatment differs from other schemes with risk priority WAEs (e.g. Upper Condamine Risk A tariff group) or water harvesting WAEs (e.g. the Burdekin-Haughton distribution system), reflecting different conditions of supply in each scheme.[314]
- The exclusion of the risk priority WAEs from the price calculation process and treatment of any revenue earned from risk priority WAEs as a revenue offset allow Sunwater to recover its full costs from risk priority WAE holders and the broader customer group.
- It is appropriate to calculate the revenue offset based on the risk priority tariff group average usage, and not that of whole-of-scheme average usage (as suggested by Eton Irrigation Cooperative Ltd (EICL)).[315] Basing the offset calculation on whole-of-scheme usage means Sunwater would be unlikely to recover its full costs.

A stakeholder in this scheme indicated a preference for risk priority WAEs to be considered with the other groups in our recommendations, or to otherwise provide for greater transparency of the charges.[316] We consider that the approach to pricing these entitlements described above will address the issue of Sunwater's cost recovery (and will exclude distribution system costs), while also providing transparency of pricing arrangements.

EICL noted that many of the customers on the Mirani diversion channel with risk priority WAEs also have allocations from the Pioneer River scheme, which are delivered using Eton scheme assets. EICL considered that a revenue offset should also be included to account for the actual costs of pumping

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[311] The Eton risk priority group's volumetric price is proposed to be calculated as the sum of Part A and Part B cost-reflective electricity inclusive medium priority charges (Sunwater, response to RFI 161).
[312] Sunwater, sub. 9, p. 129; Sunwater, sub. 27, p. 10; Sunwater, *Irrigation Price Path 1 July 2025 to 30 June 2029, Eton Irrigation Water Supply Scheme*, 26 June 2023, pp. 29–32.
[313] In the 2020 review, we recommended prices for the Eton (medium priority) tariff group based on combined High B priority WAEs and risk priority WAEs volumes (QCA, *Rural irrigation price review 2020-24, Part B: Sunwater*, final report, January 2020, p. 153, table 73). The government effectively accepted these prices (and applied a 15% discount); however, the tariff group was renamed to Eton (High B priority), effectively excluding risk priority WAEs from this tariff group. As a result, Sunwater has been unable to recover the costs allocated to the risk priority tariff group over the current price path period.
[314] Sunwater, response to RFI 157.
[315] EICL, sub. 49, pp. 9–10.
[316] B Nicholson, sub. 56, pp. 3–5.

and managing the Pioneer River allocations of these customers and any associated increased maintenance costs.[317]

We understand that there are currently six customers with risk priority WAEs who also may use Pioneer River WAEs to take water held in the Pioneer scheme via the Mirani diversion channel in certain circumstances. This generally occurs when Sunwater has ceased using the channel to transfer water from the Pioneer River to Kinchant Dam, with residual water in the channel able to be retained for a short period to enable risk priority customers to access.[318] Sunwater has advised that over the last 14 years these customers have taken a cumulative total of 304 ML of water using Pioneer River WAEs via the Mirani diversion channel. Given this, we consider that any Eton water supply scheme costs associated with the delivery of water to Pioneer River water supply scheme customers are not material.

9.4.4 Other scheme-specific adjustments between tariff groups

Table 49 provides a summary of other scheme-specific adjustments that we have adopted in allocating allowable costs between tariff groups.

Table 49: Scheme-specific adjustments to allocate allowable costs between tariff groups

Scheme	Tariff groups	Proposed approach
Barker Barambah water supply scheme	Redgate relift	We consider Sunwater's proposed cost allocation approach for electricity costs for the Redgate pump station is appropriate. Sunwater proposed to allocate all scheme-level electricity costs to customers in the Redgate relift tariff group.[a] Customers in this group are the sole beneficiaries of the electricity used at the Redgate pump station. This is consistent with our approach in the 2012 and 2020 reviews.
Lower Mary water supply scheme	Tinana and Teddington Weir	In our 2012 and 2020 reviews we accepted that the Owanyilla pump station and main channel – which are Lower Mary distribution service assets – also perform a bulk water function, as they supplement the Tinana Barrage and Teddington Weir. Sunwater has proposed the same approach for this review but has updated transfer amounts[b] (see section 9.1.2 for our assessment of these cost transfer amounts). All costs transferred from the Lower Mary distribution system relating to Owanyilla pump station and main channel costs are allocated to the Tinana and Teddington Weir tariff group.
Upper Condamine water supply scheme	North Branch North Branch – Risk A Sandy Creek or Condamine River	We consider that Sunwater's proposed approach to allocating scheme-level electricity and renewals costs is appropriate.[c] All electricity costs are allocated to North Branch tariff groups (North Branch and North Branch – Risk A) as they are the sole beneficiaries from electricity use at the Yarramalong pump station. North Branch – Risk A is not allocated any renewals costs since the WAEs in this tariff group have a lower priority than medium priority, as it is more like water harvesting than supplemented supply.

a Sunwater, sub. 18, p. 3; b Sunwater, sub. 9, p. 123; c Sunwater, sub. 39, p. 3.

[317] EICL, sub. 49, pp. 9–10.
[318] Eton Risk priority customers may also apply to Sunwater to access their Pioneer Valley WAEs via the Mirani diversion channel (without it entering Kinchant Dam), and Sunwater may approve this (subject to operational conditions) by initiating a transfer in accordance with ROL conditions. However, given contract terms and current operational practice, the taking of Pioneer Valley water via the Mirani diversion channel generally precludes this approach (Sunwater, response to RFI 158).

9.4.5 Merging existing tariff groups

Sunwater submitted that in some schemes several current tariff groups exist for historical reasons and, where prices in these groups have reached parity by 1 July 2025, there is no longer an ongoing basis for their continued differentiation. In these cases, Sunwater proposed they be replaced by a single tariff group going forward. Sunwater has proposed to do this for the tariff groups listed in Table 50.

Table 50: Tariff groups proposed to be merged by Sunwater

Scheme	Service	Tariff group
Burdekin-Haughton	Distribution	Burdekin Channel Burdekin Channel – Glady's Lagoon (other than Natural Yield)
Nogoa-Mackenzie	Water supply	Nogoa-Mackenzie (high priority LMS) Nogoa-Mackenzie (high priority)
Eton	Water supply	Eton (high B priority LMS) Eton (high B priority)
St George	Water supply	St George (medium priority LMS) St George (medium priority)
Callide	Water supply	Callide – Callide and Kroombit Creek Callide – Benefited Groundwater Area
Dawson Valley	Water supply	Dawson Valley – River (high priority LMS) Dawson Valley – River (high priority) Dawson Valley – River (medium priority LMS) Dawson Valley – River (medium priority)
Proserpine	Water supply	Proserpine River Proserpine River – Kelsey Creek Water Board

Source: Sunwater, sub. 9, pp. 131–132.

In general, we consider that merging tariff groups in these circumstances is reasonable and will simplify pricing arrangements. However, this will not be appropriate for tariff groups with different underlying pricing arrangements.

Given this, we consider that it is not appropriate to merge the Burdekin Channel – Glady's Lagoon (other than Natural Yield) tariff group with the Burdekin Channel tariff group as there are different underlying pricing arrangements for this tariff group (i.e. customers are not charged for 360 ML of identified natural yield).

9.5 Deriving the price target

The final step in deriving the price target for each tariff group is for the allocated costs to be converted into a unit cost for each of the tariff components (i.e. fixed and variable cost per ML) using the volume forecasts from Chapter 8. These unit costs are then smoothed over the price path period using our measure of inflation to derive the price target for each tariff group.[319]

[319] Referral, Sch. 2, para. A. Our estimate of inflation is discussed in Chapter 6.

The fixed (Part A and C) prices are based on WAEs in each tariff grouping. The volumetric (Part B) price reflects the average water use for the scheme as a whole, based on the average 20-year water use (see Chapter 8).

As outlined in Chapter 7, we propose using a renewals annuity approach to derive the renewals allowance. Our estimates of price targets for each scheme under a renewals annuity approach are provided in Appendix E.

Draft price targets that have been derived under Sunwater's proposed RAB approach are provided in Appendix G, for stakeholders' information.

10 Draft prices

The last step to reach our draft price recommendations is to apply the government's pricing principles to establish the transitional path to the price target for each tariff group. The pricing principles specify the rules for transitioning the price targets to our draft prices, although there are exceptions to the strict application of the transitional element of the pricing principles in special cases.

Where customers reach the price target during the price path period, their prices reflect the price target for the rest of the period.

We are directed under the referral to recommend appropriate prices and, for relevant water supply schemes, other prices including drainage prices, water harvesting prices and termination fees to be charged by Sunwater for the price path period.[320] This chapter sets out:

- how the government's pricing principles apply, and our draft price recommendations (section 10.1)
- our approach to recommending miscellaneous charges, including drainage prices, water harvesting prices and termination fees (section 10.2).

10.1 Draft recommended prices

Sunwater draft recommendation 1

We recommend that prices for irrigation customers for each water supply scheme and distribution system should be set according to the prices set out in Appendix F, Tables 80 and 81.

The government's pricing principles are broadly the same as the principles for the 2020 review, although there are two main differences:

- Different approach to transitioning fixed prices that are above the associated fixed component of the price target – if the total fixed price or any of the individual fixed prices are above the associated fixed price component of the price target, the relevant fixed prices are to be reduced to the associated fixed price component of the price target in the first year of the price path period. In the 2020 review, fixed prices were generally to be maintained in nominal terms throughout the period until the price target was reached.[321]
- Prescriptive approach to transitioning volumetric prices that are below the associated volumetric component of the price target – if the total volumetric price is below the total volumetric component of the price target, the volumetric prices are to be increased each year by a maximum of inflation plus $2.54/ML (2024–25 dollars, increasing annually by inflation). While this is consistent with our approach in the 2020 review, for that review we were provided with flexibility to decide on an appropriate transitional approach.

[320] Referral, para. B(1.1)(a).
[321] Except for the fixed bulk (Part A) price for distribution system customers.

The referral also provides for special cases, where we may apply the transitional element of the government's pricing principles as we consider appropriate. These include where:

- allowable costs include an allowance for expenditure on improved service levels
- allowable costs include an allowance for capex associated with the augmentation of existing assets or new assets
- new tariff groups or new tariff components are considered.[322]

Sunwater has proposed a new tariff group for the Eton risk priority water access entitlements (WAEs) (see section 10.1.1).

In all cases, where the fixed or volumetric price for a tariff group reaches the corresponding component of the price target during the price path period, the corresponding component of the price target applies for the remainder of the period.

Having applied the government's pricing principles, as outlined above, our draft recommendation is that prices for irrigation customers for each water supply scheme and distribution system should be set according to the prices set out in Appendix F, Tables 80 and 81.

10.1.1 Eton risk priority

The referral provides some flexibility in applying the pricing principles in certain circumstances – namely, where there are improved service levels, augmentations of existing assets or new assets, or new tariff groups or tariff components.[323]

We have applied the pricing principles as we consider appropriate in recommending draft prices for the Eton risk priority WAEs. This is a non-standard bulk water service in the form of risk priority allocations for water sourced from the Mirani diversion channel. Sunwater proposed a tariff reform in the Eton scheme, which is intended to address what it said is a structural under-recovery of revenue arising due to the pricing arrangements for this group of customers.

For risk priority customers in the Eton scheme, we accept Sunwater's proposed approach to setting prices (see section 9.4.3). As this effectively establishes a new Eton risk priority tariff group, we have discretion in how it is transitioned to the price target. We consider that it is appropriate for the Eton risk priority tariff group to transition immediately to the price target as customers can choose to take these risk priority WAEs at this price, given it is 100% volumetric. We also note that this is consistent with the existing pricing arrangements for these customers.

10.2 Miscellaneous prices

The referral directs us to make recommendations about other prices, including drainage prices, water harvesting prices and termination fees.[324] Sunwater said that revenue it earns from miscellaneous fees and charges (notably access and drainage charges) accounts for less than 2% of its total revenue requirement. This revenue is treated by Sunwater as a revenue offset and is deducted from the overall revenue requirement for each scheme and sub-scheme.[325]

[322] Referral, para. B(1.1).
[323] Referral, section 1.
[324] Referral, para. B(1.1)(a).
[325] Based on pre-adjusted revenue (Sunwater, sub. 9, p. 122).

Sunwater draft recommendation 2

We recommend that:

- the current drainage price for the Burdekin-Haughton distribution system, updated annually, should apply
- the drainage diversion price for the Burdekin–Haughton distribution system should increase annually in line with our measure of inflation
- distribution system water harvesting charges should comprise any applicable government water harvesting charges, our recommended volumetric Part D price, and a Sunwater lease fee if relevant
- for termination fees:
  - termination fees should be calculated as up to 11 times (including GST) the relevant fixed price target
  - Sunwater should have the discretion to apply a lower multiple to the relevant fixed price target or waive the termination fee
  - Sunwater should never recover any revenue shortfall from remaining customers upon exit of the scheme by another customer.

10.2.1 Drainage prices

Drainage price

Sunwater provides drainage services to remove farm run–off water and stormwater from irrigated properties in the Burdekin–Haughton distribution system. A charge for this service is levied on customers under the *Water Act 2000* (Qld) and Water Regulation 2016 (Qld).

Sunwater submitted that from 1 July 2022, the Queensland Government introduced a new mechanism for how fees are updated annually to reflect indexation. Under this approach, all regulatory fees in legislation have changed to 'fee units', with the fee unit value prescribed in the Act Interpretation (Fee Unit) Regulation 2022. Sunwater submitted that the fee unit value ($31.54 per hectare of irrigable land in 2023–24) is updated annually in line with the government indexation rate, which Sunwater does not control. Sunwater has assumed an inflation rate for the increase of its revenue from this source. Sunwater said that the cost of developing accurate cost–reflective drainage charges would likely exceed the benefits.[326]

The 2020 review recommended that revenues from drainage charges should continue to be treated as a revenue offset, with any shortfalls being recovered from the Part C price. This was based on our view that the cost of establishing a cost–reflective drainage charge would outweigh the benefits, considering the complexities involved and inaccurate historical drainage cost data.

BRIA Irrigators supported our recommendation in the 2020 review and suggested that Sunwater should provide greater transparency on drainage maintenance expenditure to ensure costs are correctly apportioned between drainage charges, diversion licence charges and channel maintenance.[327] We agree that improved transparency in the cost allocation for drainage services

[326] Sunwater, sub. 9, p. 143.
[327] BRIA Irrigators, sub. 42, p. 143.

would be beneficial, particularly given that not all distribution system customers benefit from drainage services.

We recognise that there are still considerable complexities with establishing a cost–reflective drainage charge, which would require unbundling renewals annuity balances and improving the allocation of costs between drainage and channel services. We consider that the costs of establishing a cost–reflective charge would likely exceed the benefits. On this basis, we consider that the current drainage price for the Burdekin–Haughton system is appropriate. We expect that this would be updated annually in line with the government indexation rate. In calculating the revenue offset, it is appropriate to apply our measure of inflation (see Chapter 6). We also note BRIA Irrigator's support for the continuation of this approach. Nevertheless, we consider that Sunwater should take steps, where cost-effective, to improve the transparency of its cost allocation for this service.

Drainage diversion price

Sunwater currently charges customers in the Burdekin–Haughton distribution system for the use of water diverted from the drainage network.

Sunwater submitted that revenue from diversion charges partially recovers the costs of water use from the drainage network in the Burdekin–Haughton distribution system. It proposed to increase diversion charges by an inflation escalator each year for the price path period, with the 2023–24 price being $187.71 per pump.[328]

We consider that it is appropriate for diversion charges to continue to be escalated annually by our measure of inflation over the price path period.

10.2.2 Water harvesting charges

Water harvesting occurs where customers in a distribution system can access water in excess of their WAE holdings from a channel or pipeline during authorised or announced high-flow periods, such as flood events.

Sunwater holds distribution system water harvesting WAEs for the Burdekin–Haughton distribution system. It has not proposed any change to the current pricing arrangements for distribution system water harvesting charges.[329]

In the 2020 review, we recommended that distribution system water harvesting charges should comprise any applicable government water harvesting charges, a charge reflecting the cost of delivery and a Sunwater lease fee, if relevant.[330]

Government charges for water harvesting currently do not apply to the Burdekin–Haughton distribution system.[331]

Sunwater incurs a cost for delivering water through its distribution channels for the purpose of water harvesting. Our view is that the charge for use of the distribution system should be cost–reflective – that is, it should reflect the Part D charge, which we have calculated based on the prudent and efficient distribution system costs.

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[328] Sunwater, sub. 9, p. 143.
[329] Sunwater, sub. 9, p. 144.
[330] QCA, *Rural irrigation price review 2020–24, Part B: Sunwater,* final report, 2020, p. 158. These potential components of a water harvesting charge were identified in our 2012 review.
[331] Water management areas subject to this charge are listed in Schedule 14 of the Water Regulation 2016.

Sunwater may also set a lease fee for providing water harvesting services and, as water harvesting WAEs held by Sunwater are traded to customers within the water trading market, lease fees are determined within a market context. Where lease fees apply, we consider that this is the appropriate way to set fees. However, as Sunwater has not set a lease fee for the Burdekin–Haughton distribution system, a lease fee is not applicable at this time.

10.2.3 Termination fees

Termination fees apply when distribution system WAEs are permanently transferred to a different section of the scheme. This is typically to the river or, in some cases, other scheme sub-systems.

Termination fees also apply in the Lower Mary water supply scheme when WAEs are transferred from the Lower Mary (Tinana Barrage and Teddington Weir) tariff group to the Lower Mary (Mary Barrage) tariff group.

The purpose of termination fees is to allow Sunwater to recover its fixed costs associated with permanently transferred WAEs and to protect remaining customers from any price increases as a result of the permanent transfer of WAEs.

Sunwater has not proposed to make any changes to the way this fee is calculated for the 2025–29 price path period. It has therefore proposed, consistent with the approach adopted in the 2020 review, to calculate this fee by multiplying the relevant cost-reflective fixed charge by a multiplier of 11.[332]

In the 2020 review we recommended that the termination fee should be a multiple of 11 times (including GST) the relevant fixed cost-reflective price. This figure was based on Australian Competition and Consumer Commission (ACCC) guidelines for the Murray–Darling Basin (MDB) initially issued in 2011, and subsequently updated in 2020.[333] The ACCC considered that the imposition of a termination fee ensures a contribution from exiting irrigators for the ongoing fixed costs of operating the infrastructure, providing some revenue certainty for infrastructure operators and some protection against a future price increase for remaining customers.[334]

We consider that the approach Sunwater proposed to calculate the termination fee is appropriate. It is consistent with our recommended approach in the 2020 review and reflects the current ACCC guidelines on the appropriate multiple to apply in calculating termination fees. We consider that this multiple should be based on the fixed price target (rather than actual fixed prices).[335] Stakeholders have not raised any concerns with this approach. We note that a lower multiple could be applied at Sunwater's discretion. Under our recommended approach, any revenue shortfall from termination fees is borne by Sunwater, not remaining customers, so that Sunwater should have an incentive to find a new customer and to improve efficiency.

We therefore consider that a termination fee of up to 11 times (including GST) the relevant fixed price targets is appropriate. We consider that this appropriately balances the interests of the terminating customer, remaining customers and Sunwater.

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[332] Sunwater, sub. 9, pp. 143–144.
[333] QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, 2020, pp. 153–155. The ACCC completed a review of the water charge rules for the MDB in 2016. Following this review, termination fees rules are contained in Part 10 of the Water Charge Rules 2010. See ACCC, *Review of the Water Charge Rules*, final advice, September 2016, p. 271.
[334] The ACCC also considered that the maximum termination fee should only include fixed infrastructure charges imposed per unit of water delivery right held. ACCC, *Review of the Water Charge Rules*, final advice, September 2016, p. 14, 263.
[335] The ACCC recommended termination fees be based on actual fixed prices, reflecting the fact that most operators in the MDB have historically set fixed prices below fixed costs. The ACCC considered that, by setting the termination fee based on actual fixed prices, operators would have an incentive to move towards cost-reflective prices. However, Sunwater does not have the discretion to alter its tariff structure or set prices to cost-reflective levels.

We have reviewed the maximum termination fees proposed by Sunwater. Table 51 shows our draft maximum termination fee for each tariff group, based on the price targets set out in Appendix E.

Table 51: Maximum termination fees per tariff group ($/ML WAE, nominal)

Tariff group	2025-26	2026-27	2027-28	2028-29
Bundaberg channel	1,143.32	1,172.47	1,202.37	1,233.02
Burdekin channel	568.81	583.31	598.18	613.44
Burdekin – Giru Groundwater	568.81	583.31	598.18	613.44
Burdekin – Glady's Lagoon (other than Natural Yield)	568.81	583.31	598.18	613.44
Lower Mary – Tinana and Teddington	291.91	299.35	306.99	314.82
Lower Mary channel	1,517.00	1,555.68	1,595.35	1,636.02
Mareeba-Dimbulah – outside a relift up to 100 ML	806.98	827.56	848.66	870.30
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	716.03	734.28	753.01	772.21
Mareeba-Dimbulah – outside a relift over 500 ML	564.30	578.68	593.44	608.57
Mareeba-Dimbulah – river supplemented streams and Walsh River	392.42	402.42	412.68	423.20
Mareeba-Dimbulah – relift	834.48	855.76	877.58	899.96

Source: QCA analysis.

11 Impact of draft prices

This chapter discusses the impact of our draft price recommendations on irrigation customers and estimates the revenue shortfall for each tariff group with draft prices below the draft price target. More detailed information at the scheme and tariff level is provided in scheme information sheets, which are available on our website.

11.1 Indicative price impacts

We reached our draft price recommendations by applying the government's pricing principles.[336] For each tariff group, we compared our draft price recommendations (Appendix F) with the draft price target (Appendix E) over the price path period. Overall, 12 of the 43 tariff groups will have prices at the price target in the first year of the price path period, with a further 10 tariff groups reaching the price target by the end of the price path period.

Based on our draft price recommendations, price increases would vary over the price path period for each tariff group and between tariff groups (Figures 27 and 28). Our analysis is based on the total price per megalitre (ML) of water access entitlement (WAE) for each tariff group. This is derived as the total fixed price plus the total volumetric price multiplied by the assumed scheme usage percentage of WAE (see Chapter 8). As a result, the price increases for individual customers will vary if their water usage differs from the assumed scheme usage.

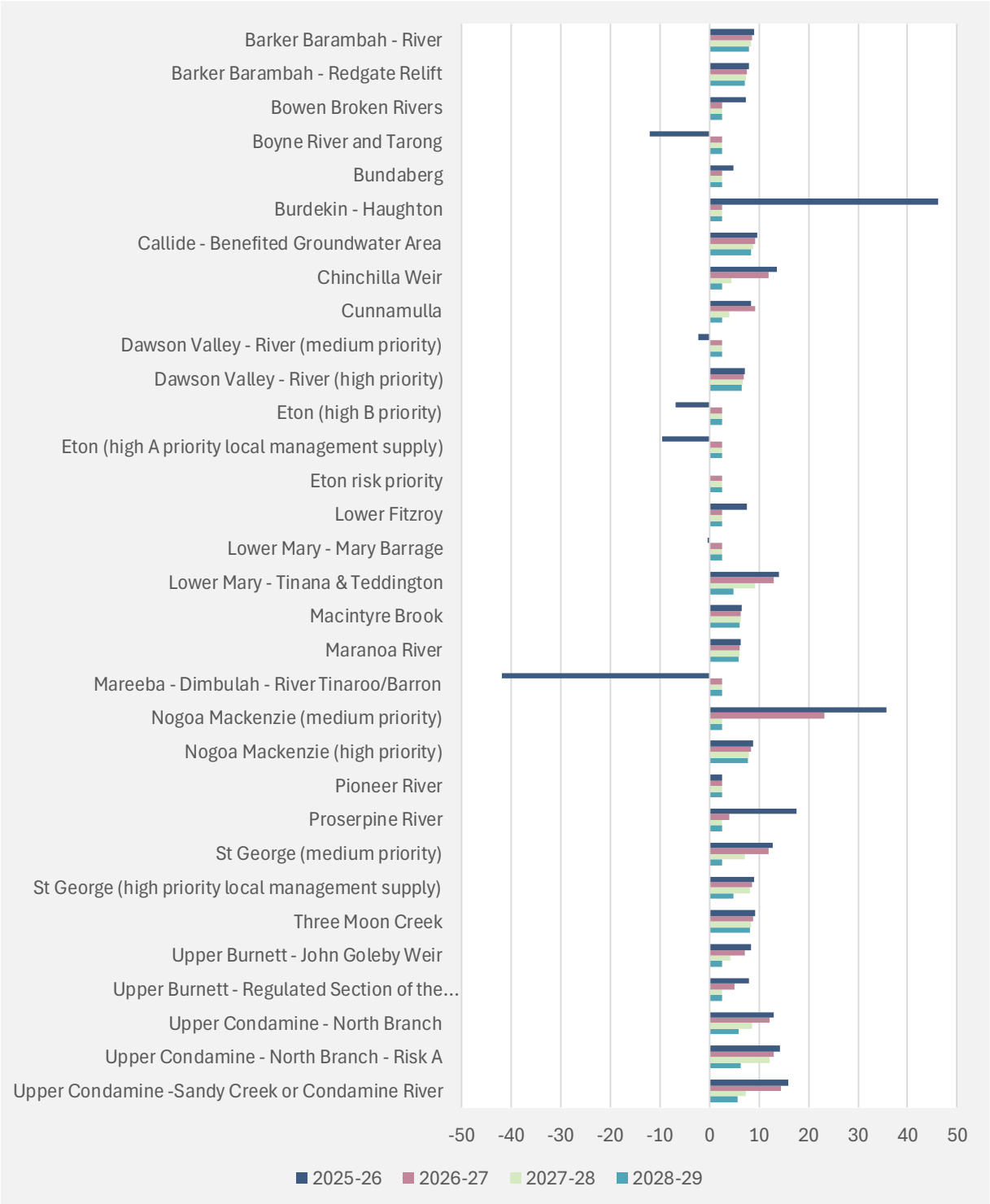
In 2025–26, a key driver of the difference in price changes between tariff groups is whether the fixed and volumetric components of the 2024–25 price are above or below the corresponding tariff components of the 2025–26 price target. Any components that are above will immediately reduce to the price target and any components that are below will increase by no more than inflation plus $2.54/ML (2024–25 dollars) towards the price target.

In addition to this driver, price changes in 2025-26 and price increases for the remainder of the price path period will depend on:

- whether the tariff group is transitioning to the price target or at the price target – all else being equal, tariff groups that are transitioning to the price target would generally face larger price increases (i.e. increases above forecast inflation) than customers that have reached the price target (i.e. increases by forecast inflation only)
- the relative level of the price in the previous year – if a tariff group is transitioning to the price target, an increase of inflation plus $2.54/ML (2024–25 dollars) applied to a relatively low price would result in a larger percentage increase than if it were applied to a relatively high price.

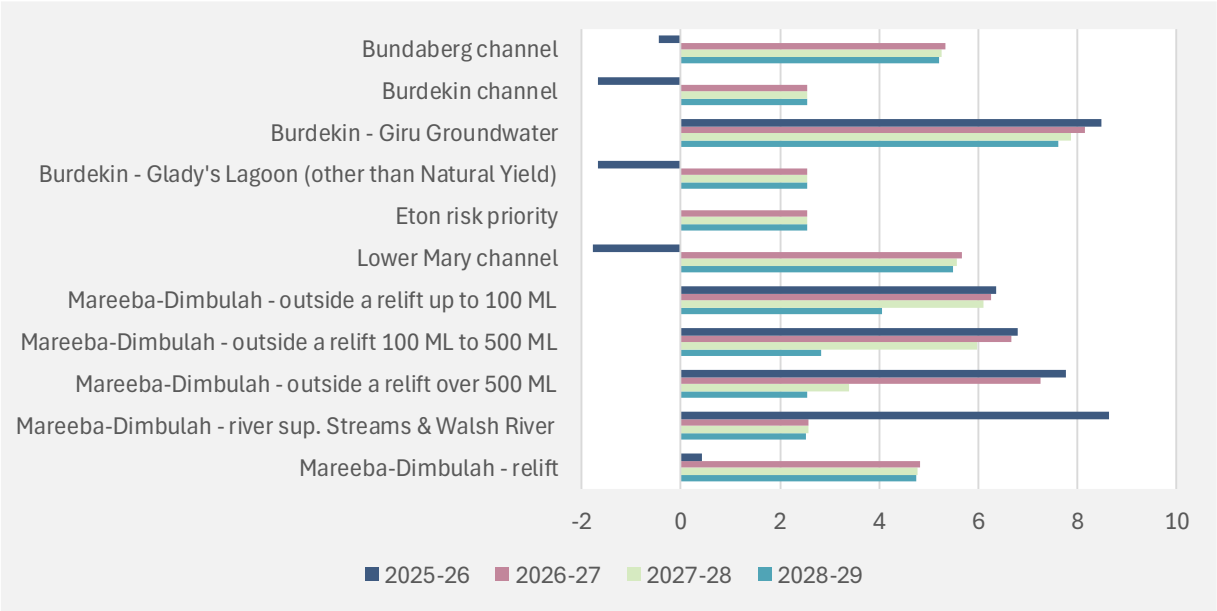
[336] With the exception of the Eton risk priority tariff group (see section 10.1.1).

Figure 27: Changes in draft irrigation prices, bulk WSSs (nominal, % change)



Note: The base year price is the 2024–25 irrigation price before the 15% discount that Sunwater was directed to apply to irrigation prices.

Figure 28: Changes in draft irrigation prices, distribution systems (nominal, % change)



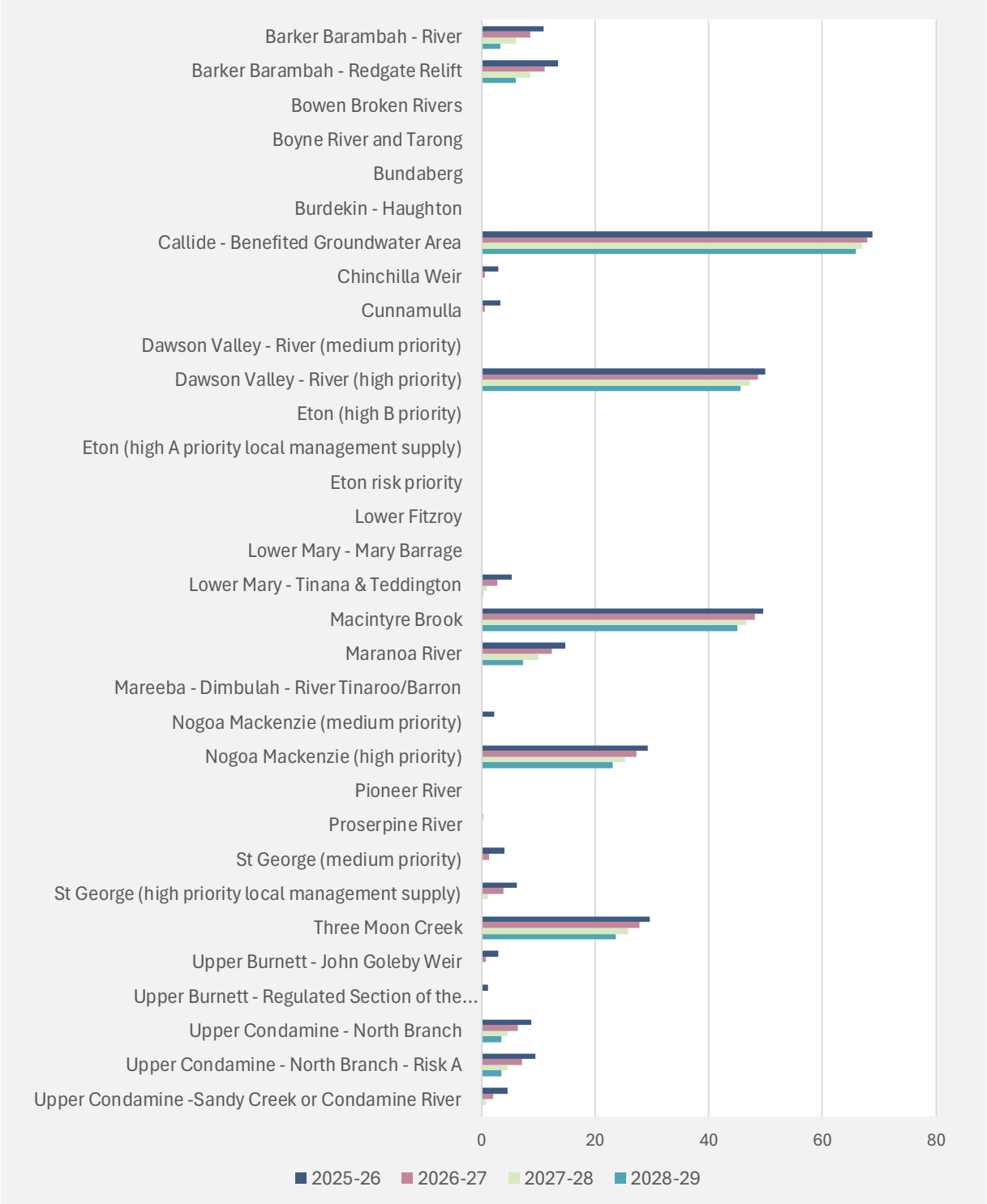
Note: The base year price is the 2024–25 irrigation price before the 15% discount that Sunwater was directed to apply to irrigation prices.

The government provides a CSO payment to Sunwater when prices are below the price target. Based on our draft price recommendations and draft price targets, we estimated the revenue shortfall per megalitre of WAE for each tariff group over the price path period (Figures 29 and 30).[337] The estimated revenue shortfall:

- is highest for those tariff groups that are the furthest from the price target
- decreases over the period as prices move closer to the price target or reach the price target (in which case the shortfall become zero).

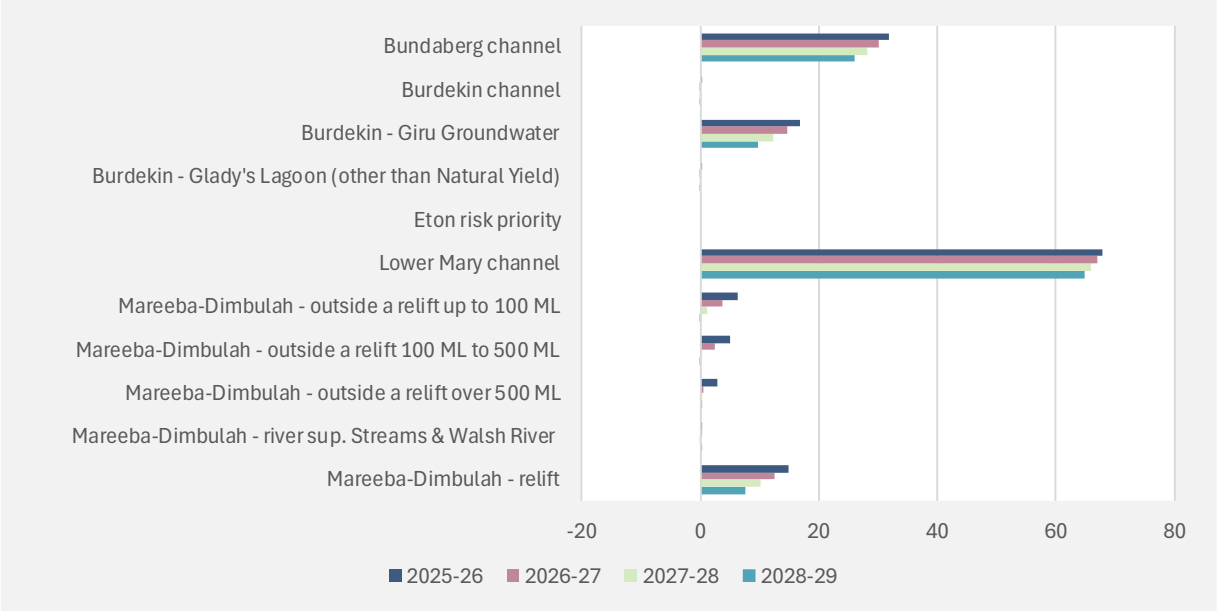
[337] The estimated shortfall does not cover the allowances for a return on (and of) dam safety upgrade capex and assets built before 1 July 2000, because they are excluded from the costs that are allowed to be recovered through the price target.

Figure 29: Estimated revenue shortfalls, bulk schemes ($/ML, nominal)



Note: The annual revenue shortfall per ML of WAE for each tariff group is calculated as the difference between the draft recommended price and draft price target, with the volumetric price component multiplied by the assumed scheme usage for volumetric prices.

Figure 30: Estimated revenue shortfalls, distribution systems ($/ML, nominal)



Note: The annual revenue shortfall per ML of WAE for each tariff group is calculated as the difference between the draft recommended price and the draft price target, with the volumetric price component multiplied by the assumed scheme usage for volumetric prices.

11.2 Stakeholders raised concerns about affordability

We acknowledge the concerns raised by several stakeholders about the affordability of irrigation prices and the broader impact on business viability and regional development.[338]

In determining irrigation prices, the government says that it is seeking to strike a balance between cost recovery, customer impacts, and simple and transparent pricing.[339] Previous statements by the government also suggest that its irrigation pricing policy and pricing decisions have been informed by considerations of affordability, capacity to pay and minimisation of price shocks.[340]

To assist the government with its pricing decisions, we were directed to recommend prices that are consistent with the government's pricing principles.[341] The pricing principles set out how prices are to transition to the price target and how the price target is to increase over the price path period. The benefits to customers of prices set according to the pricing principles include:

- protection from large cost increases, because of the cap on annual price increases
- for many customers (in 31 of Sunwater's 43 tariff groups), prices that are below the price target for some or all the price path period

[338] Canegrowers Mackay, sub. 45, pp. 1-3; QFF, sub. 59, pp. 5–7; Australian Cane Farmers Association Limited and Queensland Cane Agriculture and Renewables, sub. 58, pp. 5-7, Attachment 1; BRIA Irrigators, sub. 42, p. 6; Central Highlands Cotton Growers and Irrigators Association (CHCGIA), sub. 47, p. 2; Nogoa-Mackenzie IAC, sub. 57, p. 1; Barker Barambah IAC, sub. 40, p. 1; B Nicholson, sub. 56, p. 3; BRIA Irrigators, sub. 42, p. 6.

[339] Queensland Government, *Seqwater and Sunwater irrigation pricing*, Business Queensland website, accessed 8 May 2024.

[340] Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, pp. 25–30; A Lynham (Minister for Natural Resources, Mines and Energy), *Price freeze offers further relief for farmers*, media statement, Queensland Government, 5 May 2020; Queensland Government, *Submission to the Productivity Commission* [sub 45], National Water Reform issues paper – March 2017, 21 April 2017, p. 7.

[341] There are a few exceptions to the requirement to apply the transitional element of the pricing principles.

- for customers at the price target, prices that are below the full costs of supplying irrigation services.[342]

In addition, while the government considers our price recommendations, it is not bound to accept them. For the current price path period, the government set prices that were lower than the prices we recommended in our 2020 review (see Appendix A). The government decided to provide additional price relief given concerns about the ability of irrigation customers to withstand price increases due to the impacts of the covid-19 pandemic, drought, and broader economic conditions.[343]

We have limited scope to directly consider or address affordability concerns, given the bounds within which we are to provide our price recommendations. In addition, delivering support through lower prices is generally an inefficient and ineffective way of improving affordability, because the support cannot be targeted to those that most need it, consumption and investment decisions may be distorted, and the costs to the broader community may be higher than necessary.

However, our price recommendations may indirectly affect affordability because we ensure that only prudent and efficient costs are recovered through the price target. When setting the price target, we also have some scope to consider accommodating customer preferences to mitigate price impacts, such as accepting lower service standards to reduce costs or changing the proportion of costs allocated to each of the tariff components. However, we would need to consider those preferences alongside other relevant matters, such as:

- impacts on economic efficiency – for example, whether there is any inefficient cost shifting to other customers or distortions to price signals
- impacts on the revenue shortfall – whether there would be an increase in the revenue shortfall (i.e. the difference between the revenue recovered from irrigation prices and the revenue that would be recovered if the price target was charged), which may occur because of the way the pricing principles operate.

Stakeholders in some schemes were concerned about the impact of poor scheme reliability on the ability of customers to pay fixed charges when there is little or no water available.[344] When water allocations are low, customers will pay more for each ML of water they take. In schemes that have lower reliability, one option might be to increase the allocation of costs to the volumetric charge when setting the price target. In assessing the appropriateness of such an approach, we would also need to consider:

- the implications on Sunwater's risk profile and whether it needed to be compensated for accepting additional revenue risk
- the impact on the efficiency of price signals
- the requirement in the referral to consider the fixed and variable nature of costs in relation to tariff structures
- whether there would be an increase in the revenue shortfall.

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[342] The price target recovers allowable costs, which exclude certain costs, such as a return on and of both the initial investment in existing assets (as at 1 July 2000) and dam safety upgrade capex.

[343] Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, p. 28; A Lynham (Minister for Natural Resources, Mines and Energy), *Price freeze offers further relief for farmers*, media statement, Queensland Government, 5 May 2020.

[344] The Lockyer Water Users Forum also said that assets may be stranded without an alternative pricing policy for underperforming assets. See Lockyer Water Users Forum, sub. 52, pp. 1–3; Murgon and Gatton workshop summaries at QCA, *Irrigation price investigation 2025–29*, QCA website.

However, the suggestion by the Lockyer Water Users Forum that we recommend waiving fixed charges when no water is available[345] would be inconsistent with the pricing principles. We also consider that this is a matter for the government to consider, as we have not been asked to advise on policy matters.

We note that other support measures may be available to customers that require additional financial assistance. For instance:

- Sunwater has a hardship policy and can support customers through flexible payment options.[346]
- The Farm Management Deposit Scheme aims to help primary producers to deal with fluctuations in cashflow by setting aside pre-tax income that can be drawn on in future years when it is needed.[347]
- The Queensland Rural and Industry Development Authority delivers government financial assistance programs to primary producers, such as loans, grants, and rebates. This includes drought and disaster assistance programs, loans to improve business sustainability, and support to producers facing financial difficulties.[348]

It is a matter for the government to decide whether to further subsidise irrigation prices or to provide additional external support to address affordability concerns or to meet other policy objectives.

[345] Lockyer Water Users Forum, sub. 52, pp. 1–3.
[346] Sunwater, *Managing your account - hardship*, Sunwater website, accessed 8 May 2024.
[347] Australian Government Department of Agriculture, Fisheries and Forestry (DAFF), *Farm Management Deposits*, DAFF website, accessed 8 May 2024; Australian Taxation Office (ATO), *Farm management deposits*, ATO website, accessed 8 May 2024.
[348] See the Queensland Rural and Industry Development Authority website.

12 Managing cost risk

In this chapter, we explain our draft recommendations on appropriate price review triggers and other mechanisms to manage the risks associated with material changes in allowable costs outside Sunwater's control.[349]

12.1 Key findings

We propose to maintain the review event mechanism to address uncontrollable opex risk. We also propose to maintain the current list of review events, but to clarify the definitions and the criteria for assessing review event applications.

We understand that Sunwater is working with customer representative groups on an alternative proposal for an electricity cost pass-through (ECPT) mechanism, given the lack of support for its original proposal. If Sunwater intends to propose an alternative ECPT mechanism, it should clearly explain how the mechanism is compatible with the government's pricing principles, demonstrate that the benefits of introducing the mechanism outweigh the costs, and ensure that stakeholders have been appropriately consulted.

We propose to maintain the current approach of undertaking an ex post true-up of renewals and other capex, subject to an assessment of those costs for prudency and efficiency.

[349] Referral, para. B(1.1)(b).

Sunwater draft recommendation 3

We recommend the following mechanisms to manage Sunwater's uncontrollable cost risk over the price path period:

- a review event mechanism for opex risk that provides for an adjustment to allowable costs if:
  - any of the following events occur during the price path period:
    - an increase or decrease in electricity costs
    - an increase or decrease in insurance premiums
    - an increase or decrease in costs caused by a change in government policy or regulatory requirement
  - the following criteria are met:
    - the event results in a change in total costs that is sufficiently material that it could not reasonably be met by an efficient business operating within business-as-usual budget constraints, through prudent reprioritisation of expenditure
    - the costs of the event are prudent and efficient
    - an adjustment has been made to the costs of the event for any factors that offset those costs
- an end-of-period true-up for prudent and efficient renewals and other capex.

12.2 Opex risk

We generally expect Sunwater to operate within its overall opex allowance and to manage variations in opex over the price path period. However, we acknowledge that events may occur during the period that are outside Sunwater's control, and those events may have a material impact on Sunwater's costs that it is unable to manage within its overall allowance.

In the 2020 review, we recommended addressing uncontrollable opex risk through a review event mechanism.[350] The government accepted our recommendation.[351] Under the review event mechanism, an adjustment is made to Sunwater's opex allowance to reflect a material change in costs caused by the occurrence of specified review events, if the change in costs is prudent and efficient. Our assessment of Sunwater's proposal to recover review event costs in the current price path period is provided in Chapter 4.

Sunwater proposed to continue to manage uncontrollable opex risk through a review event mechanism.[352] We consider that the review event mechanism should continue to apply because it provides a reasonable balance between:

- allocating most opex risk to the business, including responsibility for managing variations in costs and re-prioritising expenditure within the opex allowance, to incentivise the business to efficiently manage risk and pursue efficiency gains

[350] QCA, *Rural irrigation price review 2020–24, Part A: Overview*, final report, January 2020, p. 43.
[351] Referral, para. B(1.1)(a); Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, p. 26.
[352] Sunwater, sub. 9, p. 39.

- allocating opex risk associated with a limited number of review events to customers and the government (if customers are paying transitional prices), to provide a reasonable opportunity for the business to recover its efficiently incurred costs and maintain an appropriate level of service.

We assess Sunwater's proposal to maintain the current list of review events, which addresses risks related to electricity costs, insurance premiums, and government policy.[353] Sunwater also consulted with customers on the introduction of an ECPT mechanism to work in conjunction with the electricity review event. We have not identified other risks that would justify the inclusion of additional review events.

12.2.1 Electricity cost risk

Sunwater proposed to retain the current review event, which would allow a true-up for a material change in electricity costs. Sunwater also consulted with customers in schemes that have high electricity costs about the introduction of an ECPT mechanism. The ECPT mechanism would apply instead of the review event mechanism for specified tariff groups in those schemes.[354]

Proposed ECPT mechanism

Customers in certain tariff groups were consulted about whether they supported the introduction of an ECPT mechanism.[355] The following tariff groups were selected on the basis that they have high electricity costs due to significant pumping requirements:

- Barker Barambah – Redgate relift
- Bundaberg – channel
- Burdekin-Haughton – channel
- Eton – high priority and medium priority
- Lower Mary – channel
- Mareeba-Dimbulah – channel relift
- Upper Condamine – North Branch (medium priority) and North Branch (risk A).

Sunwater said that it had engaged with its Consultative Committee to co-design and test the proposed mechanism, before consulting with customers.[356] This followed a three-year ECPT trial conducted by Sunwater for each of the above tariff groups (except the Eton tariff groups), which ended on 30 June 2023. However, the mechanism that Sunwater developed and consulted on with customers differed from the mechanism that applied during the trial.

Under the proposed mechanism, electricity costs would be removed from the fixed and volumetric components of the price target and recovered through new tariff components to be paid for by customers – a fixed (Part E) charge and a volumetric (Part F) charge. Sunwater would then set prices quarterly based on actual electricity costs (with a lag of up to three months) and apply a final true-up at the end of the financial year. There would also be an annual reporting and review process, which

[353] While Sunwater did not propose to retain the off-stream pumping cost review event, the purpose of that event was to address a scheme-specific cost risk applicable to Seqwater. We have not assessed Sunwater's proposal to include a new review event to capture 'other unforeseen costs', on the basis that Sunwater has not provided any justification or rationale for including this event.
[354] Sunwater, sub. 9, pp. 22, 39.
[355] Sunwater, sub. 9, pp. 22, 39.
[356] Sunwater, sub. 9, pp. xvi, 53

would provide a means for customers to challenge the prudency and efficiency of the costs to be passed through.[357]

In contrast, the trial mechanism provided an annual rebate to customers for any over-recovery of electricity costs, and customers were not billed for any under-recovered amounts. For those customers paying prices below the price target, any over- or under-recovery was adjusted downwards on the basis that their prices only covered a portion of electricity costs.[358]

An important distinction between the mechanisms is that customers on transitional prices would partially lose the benefit of subsidised prices under the proposed mechanism, because they would be liable for the full amount of electricity costs through the new Part E and Part F charges. Any cost under-recovery would also no longer be waived as it was under the trial mechanism. Sunwater advised that it adopted the proposal to set charges quarterly to address the concerns of Consultative Committee representatives about potential bill shocks associated with an annual billing approach.[359] Sunwater said it was clear with customers that it did not believe the calculation of a quarter-by-quarter price could be implemented in conjunction with the pricing principles.[360]

While Sunwater advised that there was initially strong customer support for its proposal, that support was withdrawn in all schemes, except the Eton scheme, by the end of the consultation period when final prices were presented:

> In some instances, presenting this material to customers led to them raising concerns that adopting a pass-through would not be in their best interests, contrary to their earlier feedback.
>
> This was most apparent in schemes with a service on a transition price. The removal of electricity from the base price in these circumstances tended to show customers would pay a higher overall bill for their irrigation service under this proposal. [361]

Given the lack of customer support, Sunwater proposed to introduce an ECPT mechanism for the Eton scheme only.[362] However, comments from stakeholders at the Mackay workshop suggest that many Eton customers do not support the proposed mechanism.[363] Eton Irrigation Cooperative Ltd (EICL) also raised some concerns about the operation of the mechanism and said it would continue to work with Sunwater and Eton customers to develop an efficient and equitable mechanism.[364]

Stakeholders in other schemes reiterated their objection to Sunwater's proposed mechanism in submissions and at workshops.[365] BRIA Irrigators also commented that the proposal unnecessarily complicated tariffs and billing.[366] However, BRIA Irrigators and Bundaberg Regional Irrigators Group (BRIG) supported introducing an ECPT mechanism that was consistent with the trial mechanism (without the 'no worse off' parameter).[367] BRIA Irrigators said this approach would avoid price shocks and allow customers to maintain the benefit of subsidised prices.[368] Central Downs Irrigators were

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[357] Sunwater, sub. 15, pp. 12–18
[358] Except in the first year of the trial, when the pass-through amount appeared to be calculated on the assumption that customers were at the price target (Sunwater, *Electricity Cost Pass-Through Trial*, Sunwater website, accessed 22 May 2024).
[359] Sunwater, sub. 9, p. 56.
[360] Sunwater, sub. 9, p. 134.
[361] Sunwater, sub. 9, p. 32.
[362] Sunwater, sub. 9 , p. 53.
[363] Mackay workshop summary at QCA, *Irrigation price investigation 2025–29*, QCA website.
[364] EICL, sub. 49, p. 3.
[365] Wilmar Sugar Australia, sub. 62, p. 1; BRIA Irrigators, sub. 42, pp. 4, 13–14; Bundaberg Regional Irrigators Group, sub. 41, pp. 3-4, 8-14; Central Downs Irrigators, sub. 46, p. 3.
[366] BRIA Irrigators, sub. 42, pp. 4, 13–14.
[367] BRIA Irrigators, sub. 42, pp. 4, 13–14; BRIG, sub. 41, pp. 3–4.
[368] BRIA Irrigators, sub. 42, pp. 13–14.

also supportive of an ECPT mechanism that maintained the subsidy, on the basis that an ECPT mechanism would provide a more efficient means of recovering electricity costs.[369]

We are concerned that Sunwater's consultation may not have been sufficient, because customers did not appear to understand how the proposed mechanism would work or what the potential bill impacts would be until late in the consultation process. The differences between the proposed mechanism and the trial mechanism may have contributed to this confusion, and it is not clear whether those differences were clearly communicated to customers.

Sunwater said it was important to unbundle electricity costs from existing prices to convey price signals more clearly to customers, and the proposed methodology for calculating the prices was designed to be as cost-reflective as possible.[370] However, the prices would not signal the efficient costs of future usage, because they would reflect the costs incurred in a previous period.

Given the lack of support for its proposal, Sunwater said that it was working with customer representative groups on an alternative proposal. While we have not yet received an alternative proposal to assess, as a threshold issue, an ECPT mechanism appears to be inconsistent with the government's pricing principles, which cap annual price increases for all customers (whether they are transitioning to the price target or are at the price target). Introducing greater pricing complexity and volatility also appears to be inconsistent with the government's aim of keeping prices simple and transparent.[371] The mechanism would also lead to higher administration costs, and it is not clear why a pass-through mechanism is specifically proposed for electricity costs but not other costs that may be captured by the review event mechanism.[372]

Even if the pricing principles did allow for the introduction of an ECPT mechanism, any mechanism resulting in customers paying actual costs does not appear to have the support of customers on transitional prices because they would lose the benefit of the subsidy. While some stakeholders indicated they support an alternative mechanism that would maintain the subsidy, we do not fully understand the rationale for introducing a cost pass-through mechanism with a subsidised price. Ex post adjustments, like those made to recover the costs associated with review events, are reflected in the price target, not transitional prices, because transitional prices are based on a gradual transition to the price target rather than a direct linkage with costs.

Sunwater said that an insight from the ECPT trial was that it provided customers with improved transparency about electricity usage, electricity tariffs and actual electricity costs.[373] However, improved transparency could be achieved in other ways. For schemes with high electricity usage, Sunwater's service and performance plans (SPPs) already include information on electricity costs, recent and planned efficiency initiatives, and usage and efficiency related metrics.[374] The SPPs have recently been updated in consultation with customers, and they could be further updated to include the additional information Sunwater proposed to include in the annual ECPT mechanism report.

If Sunwater intends to propose an alternative ECPT mechanism, it should clearly explain how the mechanism is compatible with the government's pricing principles, demonstrate that the benefits of

[369] Central Downs Irrigators, sub. 46, p. 3.
[370] Sunwater, sub. 15, p. 15.
[371] Referral, para. C(1.1)(b)(ii); Queensland Government, *Seqwater and Sunwater irrigation pricing*, Business Queensland website, accessed 29 April 2024.
[372] BRIA Irrigators (sub. 42, pp. 4, 14) and Bundaberg Regional Irrigators Group (sub. 41, p. 4) suggested also treating insurance costs as a pass-through.
[373] Sunwater, sub. 15, p. 14.
[374] See, for instance, Sunwater, *Final Service and Performance Plan 2023*, Burdekin Haughton Distribution Service Contract, 13 December 2023, pp. 8–10.

introducing the mechanism outweigh the costs, and ensure that stakeholders have been appropriately consulted.

Proposed review event

Sunwater's electricity cost risk has reduced since the last review because Sunwater has shifted major pumping stations from regulated electricity tariffs with variable prices to a market contract with fixed wholesale prices.[375] Around 86% of electricity is purchased through the market contract, which expires mid-way through the last year of the price path period.[376] While some residual wholesale price risk remains, we expect it to be relatively minor.

However, Sunwater remains exposed to the risk of changes in network charges. Network charges are updated annually and passed through to Sunwater under the market contract,[377] and they are a component of the regulated retail prices that apply to electricity purchased under a non-market contract. Network charges are outside Sunwater's control because they are regulated by the Australian Energy Regulator (AER). The AER makes revenue determinations every five years and approves network charges annually. The next revenue determinations for the Queensland distributors will be made by the AER in April 2025 and cover the period 2025 to 2030.[378]

We considered whether to define the review event more narrowly than in our 2020 review to reflect Sunwater's reduced risk exposure. However, we considered that this would add unnecessary complexity to the definition for limited benefit. The effect of excluding the wholesale price element is likely to be minimal because wholesale electricity prices are fixed for most of the electricity that Sunwater will purchase over the price path period. It is also difficult to accurately isolate the various impacts on electricity costs given our approach to forecasting costs (see Chapter 4).

Our draft recommendation is that the review event should be retained. Sunwater has high electricity requirements, particularly in distribution systems, and it is still exposed to cost risk that is outside of its control, albeit to a lesser extent than at the time of the 2020 review. The review event could be applied so that it is consistent with the pricing principles, which would result in less price volatility relative to an ECPT mechanism (see section 12.2.5).

12.2.2 Insurance premium risk

Sunwater proposed to retain the insurance premium review event. This would allow a true-up for the difference between actual insurance premiums and forecast insurance premiums included in Sunwater's opex allowance, if the change in premiums is material.

Sunwater's view was that it was appropriate to retain the review event on the basis that it represents a fair sharing of risk with customers and prevents inefficient upfront costs to customers through risk-averse cost forecasting.[379] EICL queried whether an insurance review event would prevent Sunwater from being rigorous with its cost forecasting and efforts to contain insurance costs.[380]

Review events may reduce incentives to manage costs efficiently, but the effect is mitigated by requiring Sunwater to demonstrate that any additional costs incurred are prudent and efficient. Sunwater's actions to manage and contain insurance premiums in the current period demonstrate

[375] Sunwater, sub. 9, p. 72, sub. 15, pp. 2–3, 10.
[376] This relates to 2022–23 actual electricity consumption. From Sunwater, response to RFI 13.
[377] Sunwater, response to RFI 152.
[378] For further information about the reviews, see AER, *Ergon Energy - Determination 2025–30* and *Energex - Determination 2025–30*, AER website, 2023, accessed 4 June 2024.
[379] Sunwater, sub. 9, p. 40.
[380] EICL, sub. 49, pp. 8–9.

that it has some control over insurance premiums.[381] However, premiums are also affected by external risk factors that are outside Sunwater's control, and we acknowledge the difficulty of forecasting premiums in the current environment.

Our draft recommendation is that the insurance review event should be retained.

12.2.3 Government policy risk

Sunwater proposed to retain the review event that would allow a true-up for a material change in costs arising from a policy change or regulatory impost.[382]

Our draft recommendation is that this event should be retained because Sunwater has limited control over the events occurring or the resultant cost impact. However, we consider the definition should be clarified to capture changes in regulatory requirements, rather than being limited to regulatory imposts.

12.2.4 Assessing review event applications

We propose to clarify the criteria that would apply to the assessment of review event applications. We consider that an adjustment to allowable costs should only be made if the definition of a specified event is met and the following criteria are satisfied:

- The event results in a change in total costs that is sufficiently material that it could not reasonably be met by an efficient business operating within business-as-usual budget constraints, through prudent reprioritisation of expenditure.
- The costs of the event are prudent and efficient.
- An adjustment has been made to the cost of the event for any factors that offset those costs.

12.2.5 Timing of review event assessments

If a review event occurs during the price path period, an adjustment to reflect the change in costs could either be made during the period or at the end of the period. However, we could not undertake a mid-period review unless we were directed to do so by the government.

A within-period review could introduce price volatility and may be inconsistent with the government's pricing principles, which define how prices are to increase over the price path period.[383] An end-of-period adjustment may therefore be more appropriate.

However, Sunwater could approach the government to propose a mid-period review, if it considered that it was unable to manage cost increases until the next price path period. Proposals could be considered on a case-by-case basis, and it would be open to the government to obtain our advice to inform the assessment.

[381] Sunwater, sub. 9, pp. 22, 39–40, 69–71.
[382] Sunwater, sub. 9, p. 39.
[383] QFF (sub. 59, pp. 4–5) was opposed to within-period reviews.

12.3 Renewals expenditure risk

When we determine the allowance for renewals expenditure for the upcoming price path period, we are required to adjust the allowance to reflect prudent and efficient renewals expenditure incurred in previous periods (see Chapter 5).[384]

Allocating renewals expenditure risk to Sunwater may encourage it to become more efficient. It would also balance incentives for efficient opex with incentives for efficient renewals to avoid inefficient substitution between opex and renewals. As discussed in section 5.2.2, there is currently the potential for Sunwater to classify non-recurrent opex as non-routine and thereby benefit from the ex post review process, while diluting the incentive effects of excluding controllable opex from ex post review.

However, it is more difficult to forecast renewals expenditure accurately than to forecast recurrent opex because Sunwater's renewals expenditure is generally lumpy and non-recurrent. Further, allocating renewals risk to Sunwater may encourage the inefficient deferral of spending to future periods, or a reduction in spending that would otherwise be efficient, which may adversely affect service provision.

It can be difficult to distinguish between underspending due to genuine improvements in efficiency and underspending due to the inefficient deferral of expenditure. The risk of forecasting error could also require larger contingencies to be built into cost forecasts, which may result in prices that are higher than necessary.

Overall, we consider that the improvements we have proposed to the ex post review process in section 5.4.5 and to the expenditure classification approach in section 5.2.2 largely address the shortcomings of the ex post review process as currently applied to Sunwater. Were Sunwater to adequately address the deficiencies in its asset planning and management approach, it may be appropriate to reconsider the appropriate allocation of renewals risk and the role of ex post assessments in future reviews.

Our draft recommendation is to maintain the current approach of adjusting forecast renewals and other capex for actual costs, subject to an ex post assessment for prudency and efficiency. However, as outlined in section 5.4.5, we propose improved reporting processes to strengthen the effectiveness of the ex post review process.

[384] Referral, para. B(1.1)(a).

Appendix A: Background on irrigation pricing

The government considers our recommendations when making decisions about the irrigation prices that the businesses can charge.

In this appendix, we provide an overview of our price recommendations from the 2020 review, the government's consideration of our recommendations and its subsequent decision about the prices to apply in the current price path period.

A.1 Price recommendations from our 2020 review

Our previous review recommended prices for the period 1 July 2020 to 30 June 2024.[385] In accordance with the pricing principles specified in the referral, we recommended that the fixed and volumetric components of a customer's prevailing price transition towards a price that recovers allowable costs (the price target) in the following way:

- fixed prices – annual increases of inflation plus an additional component of $2.38 per megalitre (ML) of water access entitlement (from 2020–21, increasing by inflation) where the prevailing total fixed price was below the associated component of the price target[386]; no change in the total fixed price where the prevailing total fixed price was above the associated component of the price target[387]
- volumetric prices – annual increases by no more than inflation plus $2.38 per ML (from 2020–21, increasing by inflation) where the prevailing volumetric price was below the associated component of the price target, and move straight to the price target where the prevailing volumetric price was above the associated component of the price target.[388]

The government did not accept our price recommendations (except for our recommendations on miscellaneous prices), but it did set prices that were based on our recommendations, as discussed below.[389] We made other recommendations that were accepted, including recommendations on apportioning dam safety upgrade capex, addressing risks and improving customer engagement.

A.2 Prices in the current price path period

The government determined prices for each year of the current price path period that were lower than the prices we recommended:[390]

- For 2020–21, prices were maintained at 2019–20 levels[391], as part of a broader package of measures to support businesses through the covid-19 pandemic. The government also said

[385] QCA, *Irrigation price investigation 2020-24*, final report, January 2020.
[386] The required increase was applied firstly to the bulk fixed price (Part A).
[387] For distribution systems, the prevailing bulk fixed price (Part A) was reduced to the associated component of the price target where the prevailing bulk fixed prices was above the associated component of the price target.
[388] In accordance with the government's pricing principles, once a fixed or volumetric price reached the associated component of the price target, we recommended that the relevant component of the price target applies.
[389] Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, pp. 25–30.
[390] Note that we were not directed to recommend prices for the last year of the period (i.e. 2024-25).
[391] Unless the fixed or volumetric price we recommended for 2020–21 was lower, in which case customers were to pay the lower price.

its decision had been informed by the impacts of drought and broader economic conditions on the ability of customers to withstand price increases.[392]

- From 2021–22 to 2024–25, prices in each year generally reflect the prices we recommended for the previous year.[393] Sunwater and Seqwater were then directed to apply a 15% discount to those prices. Customers growing horticulture crops (such as fruit, vegetables, nuts and turf) received an additional 35% discount (giving a total discount of 50%) until the end of 2023–24.[394] The decision to discount prices was described by the government as an important measure to support Queensland's economic recovery from the covid-19 pandemic.[395]

Reflecting customer affordability concerns, the government also decided to subsidise dam safety upgrade capex, instead of including those costs in the price target.[396]

[392] Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, p. 28; A Lynham (Minister for Natural Resources, Mines and Energy), *Price freeze offers further relief for farmers*, media statement, Queensland Government, 5 May 2020.

[393] Unless our recommended 2023–24 fixed price was higher than the associated component of the price target, in which case the 2023–24 fixed price (before discount) was to reflect the associated component of the price target. In these cases, the 2024–25 fixed price was derived by applying inflation to the 2023–24 fixed price.

[394] The additional 35% discount was to be paid to eligible customers as a rebate (Queensland Rural and Industry Development Authority (QRIDA), *Horticulture* Irrigation *Pricing Rebate Scheme*, QRIDA website, 2023, Queensland Government, accessed 3 June 2024).

[395] Queensland Government, *Progress report on 2020 government election commitments*, September 2021, pp. 123–124; G Butcher (Minister for Regional Development and Manufacturing and Minister for Water), *Next steps to slashing irrigation prices unveiled*, media statement, Queensland Government, 13 May 2021.

[396] Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, pp. 25–30.

Appendix B: Stakeholder consultation

B.1 Stakeholder workshops

We held 11 stakeholder workshops in early 2024. A summary of the issues raised at each workshop is available on our website.

Date	Location	Schemes covered	Number of attendees[a]
23 January	Gatton	Central Lockyer, Lower Lockyer (Seqwater)	4
25 January	Pittsworth	Upper Condamine, Chinchilla Weir, Dawson Valley (Sunwater)	5
31 January	Mareeba	Mareeba-Dimbulah (Sunwater)	4
6 February	Bundaberg	Bundaberg (Sunwater)	8
7 February	Monto	Upper Burnett, Three Moon Creek (Sunwater)	5
8 February	Emerald	Nogoa-Mackenzie (Sunwater)	13
9 February	Mackay	Pioneer River, Proserpine River, Eton (Sunwater)	12
12 February	Murgon	Barker Barambah, Upper Burnett (Sunwater)	6
13 February	Online	All Sunwater schemes	15
14 February	Clare	Burdekin-Haughton (Sunwater)	16
14 February	Giru	Burdekin-Haughton (Sunwater)	27
Total			**115**

a Excluding QCA, Sunwater and Seqwater staff.

B.2 List of submissions

The submission we received are listed below. They are numbered for reference purposes only – the numbers are used in the footnotes in the report. The submissions are available on our website.

Stakeholder	Submission number	Type of submission	Date
Seqwater	1	Seqwater proposal	November 2023
	2	Appendix A – Cedar Pocket WSS	November 2023
	3	Appendix B – Central Lockyer Valley incl Morton Vale Pipeline WSS	November 2023
	4	Appendix C – Lower Lockyer Valley WSS	November 2023
	5	Appendix D – Logan River WSS	November 2023
	6	Appendix E – Mary Valley WSS	November 2023
	7	Appendix F – Warrill Valley WSS	November 2023
	8	Appendix G – Badu – HUF Report	November 2023

Stakeholder	Submission number	Type of submission	Date
Sunwater	9	Sunwater proposal	November 2023
	10	Appendix A – Proposed and recommended prices under an annuity methodology	November 2023
	11	Appendix B – Customer engagement report	November 2023
	12	Appendix C – Cost escalation paper	November 2023
	13	Appendix D – Demand report	November 2023
	14	Appendix E – Headworks utilisation factor technical paper	November 2023
	15	Appendix F – Electricity costs technical paper	November 2023
	16	Appendix G – Strategic asset management plan	November 2023
	17	Appendix H – Weighted average cost of capital review	November 2023
	18	Scheme summary – Barker Barambah WSS	November 2023
	19	Scheme summary – Bowen Broken Rivers WSS	November 2023
	20	Scheme summary – Boyne River and Tarong WSS	November 2023
	21	Scheme summary – Bundaberg WSS	November 2023
	22	Scheme summary – Burdekin-Haughton	November 2023
	23	Scheme summary – Callide Valley WSS	November 2023
	24	Scheme summary – Chinchilla Weir WSS	November 2023
	25	Scheme summary – Cunnamulla WSS	November 2023
	26	Scheme summary – Dawson WSS	November 2023
	27	Scheme summary – Eton WSS	November 2023
	28	Scheme summary – Lower Fitzroy WSS	November 2023
	29	Scheme summary – Lower Mary WSS	November 2023
	30	Scheme summary – Macintyre Brook WSS	November 2023
	31	Scheme summary – Maranoa WSS	November 2023
	32	Scheme summary – Mareeba-Dimbulah WSS	November 2023
	33	Scheme summary – Nogoa-Mackenzie WSS	November 2023
	34	Scheme summary – Pioneer River WSS	November 2023
	35	Scheme summary – Proserpine River WSS	November 2023
	36	Scheme summary – St George WSS	November 2023
	37	Scheme summary – Three Moon Creek WSS	November 2023
	38	Scheme summary – Upper Burnett WSS	November 2023
	39	Scheme summary – Upper Condamine WSS	November 2023

Stakeholder	Submission number	Type of submission	Date
	63	Brief supplementary submission in response to stakeholder submissions to the QCA	May 2024
Barker Barambah IAC	40	Submission on Sunwater's proposal	February 2024
Bundaberg Regional Irrigators Group (BRIG)	41	Submission on Sunwater's proposal	February 2024
Burdekin River Irrigation Area (BRIA) Irrigators Limited	42	Submission on Sunwater's proposal	February 2024
Canegrowers	43	Submission on Sunwater's proposal	February 2024
Canegrowers Burdekin	44	Submission on Sunwater's proposal	February 2024
Canegrowers Mackay	45	Submission on Sunwater's proposal	February 2024
Central Downs Irrigators	46	Submission on Sunwater's proposal	February 2024
Central Highlands Cotton Growers and Irrigators Association (CHCGIA)	47	Submission on Sunwater's proposal	February 2024
Cotton Australia	48	Submission on Sunwater's proposal	February 2024
Eton Irrigation Cooperative Ltd (EICL)	49	Submission on Sunwater's proposal	February 2024
Fairbairn Irrigation Network	50	Submission on Sunwater's proposal	February 2024
Giru Benefited Area Committee	51	Submission on Sunwater's proposal	February 2024

Stakeholder	Submission number	Type of submission	Date
Lockyer Water Users Forum	52	Submission on Seqwater's proposal	February 2024
Lower Burdekin Riparian Growers	53	Submission on Sunwater's proposal	February 2024
Lower Burdekin Water	54	Submission on Sunwater's proposal	February 2024
Mallawa Irrigation	55	Submission on Sunwater's proposal	February 2024
Nicholson, B	56	Submission on Sunwater's proposal	February 2024
Nogoa-Mackenzie IAC	57	Submission on Sunwater's proposal	February 2024
Queensland Cane Agriculture and Renewables (QCAR), Australian Cane Farmers Association Limited (ACFA) Limited and AgForce Cane Board Limited (ACL)	58	Submission on Sunwater's proposal	February 2024
Queensland Farmers' Federation (QFF)	59	Submission on Sunwater's and Seqwater's proposal	February 2024
Sippel, D and S	60	Submission on Sunwater's proposal	February 2024
Theodore Water	61	Submission on Sunwater's proposal	February 2024
Wilmar Sugar Australia	62	Submission on Sunwater's proposal	February 2024

Appendix C: Draft costs by scheme

C.1 Bulk water supply schemes

Barker Barambah WSS

Table 52: Total allowable costs, Barker Barambah WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	334.3	342.8	349.7	356.7
Operations – non-direct	456.0	467.6	477.0	486.5
Maintenance – direct	124.5	127.6	130.2	132.8
Maintenance – non-direct	142.6	146.2	149.1	152.1
Insurance	373.6	382.4	391.0	398.9
Electricity	21.6	22.1	22.6	23.0
Review events	62.9	64.6	66.2	67.8
Renewals allowance	794.0	808.1	817.0	833.1
Revenue offsets	(6.9)	(7.1)	(7.3)	(7.5)
QCA fee	17.8	18.3	18.8	19.2
Total allowable costs	**2,320.6**	**2,372.6**	**2,414.3**	**2,462.8**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Bowen Broken Rivers WSS

Table 53: Total allowable costs, Bowen Broken Rivers WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	313.3	321.2	327.7	334.2
Operations – non-direct	408.3	418.6	427.0	435.5
Maintenance – direct	240.2	246.2	251.2	256.2
Maintenance – non-direct	219.0	224.6	229.1	233.7
Insurance	263.8	270.1	276.2	281.7
Electricity	234.2	239.8	245.2	250.1
Review events	47.8	49.0	50.2	51.5
Renewals allowance	616.5	629.2	637.0	647.7
Revenue offsets	–	–	–	–
QCA fee	3.2	3.3	3.4	3.5
Total allowable costs	**2,346.4**	**2,402.1**	**2,447.1**	**2,494.2**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Boyne River and Tarong WSS

Table 54: Total allowable costs, Boyne River and Tarong WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	253.9	260.3	265.6	270.8
Operations – non-direct	337.6	346.1	353.1	360.1
Maintenance – direct	114.2	117.1	119.4	121.8
Maintenance – non-direct	84.9	87.1	88.8	90.6
Insurance	566.9	580.3	593.4	605.3
Electricity	2.9	3.0	3.0	3.1
Review events	117.7	120.8	123.8	126.9
Renewals allowance	1,081.2	1,090.1	1,105.3	1,114.6
Revenue offsets	(0.9)	(0.9)	(0.9)	(1.0)
QCA fee	5.2	5.3	5.5	5.6
Total allowable costs	**2,563.7**	**2,609.2**	**2,657.0**	**2,698.0**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Bundaberg WSS

Table 55: Total allowable costs, Bundaberg WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	549.0	562.9	574.2	585.7
Operations – non-direct	989.3	1,014.4	1,034.8	1,055.4
Maintenance – direct	192.0	196.8	200.7	204.7
Maintenance – non-direct	316.3	324.3	330.8	337.4
Insurance	376.3	385.2	393.9	401.7
Electricity	11.9	12.1	12.4	12.6
Review events	(6.7)	(6.9)	(7.1)	(7.3)
Renewals allowance	1,841.1	1,864.4	1,902.9	1,935.2
Revenue offsets	(2.0)	(2.1)	(2.1)	(2.2)
QCA fee	105.8	108.5	111.3	114.1
Total allowable costs	**4,373.0**	**4,459.6**	**4,551.8**	**4,637.4**
Costs transferred from distribution system	59.4	60.6	61.8	63.1
Total allowable costs allocated to tariff groups	**4,432.4**	**4,520.2**	**4,613.6**	**4,700.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Burdekin-Haughton WSS

Table 56: Total allowable costs, Burdekin-Haughton WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	1,574.7	1,614.6	1,647.0	1,679.9
Operations – non-direct	1,300.9	1,333.8	1,360.7	1,387.8
Maintenance – direct	577.2	591.6	603.5	615.5
Maintenance – non-direct	341.2	349.8	356.9	364.0
Insurance	1,598.4	1,636.3	1,673.1	1,706.5
Electricity	7.2	7.3	7.5	7.6
Review events	425.9	436.9	447.9	459.1
Renewals allowance	1,201.5	1,232.8	1,260.1	1,285.5
Revenue offsets	(6.5)	(6.6)	(6.8)	(7.0)
QCA fee	369.0	378.4	388.0	397.9
Total allowable costs	**7,389.4**	**7,574.8**	**7,737.9**	**7,896.9**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Callide Valley WSS

Table 57: Total allowable costs, Callide Valley WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	436.2	447.2	456.2	465.3
Operations – non-direct	499.0	511.7	522.0	532.4
Maintenance – direct	352.4	360.9	368.2	375.6
Maintenance – non-direct	299.1	306.7	312.8	319.1
Insurance	610.5	625.0	639.0	651.8
Electricity	23.4	23.9	24.4	24.9
Review events	124.8	128.0	131.3	134.5
Renewals allowance	2,376.7	2,396.1	2,429.8	2,476.0
Revenue offsets	–	–	–	–
QCA fee	7.7	7.9	8.1	8.3
Total allowable costs	**4,729.8**	**4,807.4**	**4,891.9**	**4,987.9**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Chinchilla Weir WSS

Table 58: Total allowable costs, Chinchilla Weir WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	43.9	45.0	45.9	46.8
Operations – non-direct	49.6	50.9	51.9	53.0
Maintenance – direct	18.8	19.2	19.6	20.0
Maintenance – non-direct	10.9	11.2	11.4	11.6
Insurance	22.3	22.9	23.4	23.8
Electricity	–	–	–	–
Review events	2.2	2.3	2.4	2.4
Renewals allowance	200.5	204.1	205.9	208.3
Revenue offsets	(2.5)	(2.6)	(2.6)	(2.7)
QCA fee	1.4	1.5	1.5	1.6
Total allowable costs	**347.2**	**354.5**	**359.3**	**364.8**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Cunnamulla WSS

Table 59: Total allowable costs, Cunnamulla WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	10.1	10.3	10.5	10.7
Operations – non-direct	13.7	14.1	14.4	14.7
Maintenance – direct	1.2	1.2	1.2	1.3
Maintenance – non-direct	2.1	2.2	2.2	2.3
Insurance	10.1	10.3	10.5	10.7
Electricity	–	–	–	–
Review events	2.7	2.7	2.8	2.9
Renewals allowance	74.0	74.6	75.3	76.4
Revenue offsets	–	–	–	–
QCA fee	1.4	1.4	1.4	1.5
Total allowable costs	**115.2**	**116.8**	**118.5**	**120.4**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Dawson Valley WSS

Table 60: Total allowable costs, Dawson Valley WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	270.9	277.8	283.3	289.0
Operations – non-direct	420.6	431.3	440.0	448.7
Maintenance – direct	130.3	133.6	136.3	139.0
Maintenance – non-direct	175.1	179.5	183.1	186.8
Insurance	238.9	244.6	250.1	255.1
Electricity	49.3	50.5	51.7	52.8
Review events	56.5	58.0	59.4	60.9
Renewals allowance	587.8	604.3	625.8	637.3
Revenue offsets	–	–	–	–
QCA fee	31.1	31.9	32.7	33.6
Total allowable costs	**1,960.5**	**2,011.3**	**2,062.5**	**2,103.1**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Eton WSS

Table 61: Total allowable costs, Eton WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	306.8	314.6	320.9	327.3
Operations – non-direct	320.7	328.8	335.4	342.1
Maintenance – direct	299.3	306.6	312.8	319.0
Maintenance – non-direct	229.1	234.9	239.6	244.4
Insurance	352.2	360.5	368.6	376.0
Electricity	372.8	380.4	389.5	397.2
Review events	(104.1)	(106.8)	(109.5)	(112.3)
Renewals allowance	682.0	753.8	768.7	785.5
Revenue offsets	(1.8)	(1.9)	(1.9)	(1.9)
QCA fee	35.1	36.0	36.9	37.9
Total allowable costs	**2,491.9**	**2,606.9**	**2,661.0**	**2,715.2**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Lower Fitzroy WSS

Table 62: Total allowable costs, Lower Fitzroy WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	95.0	97.4	99.4	101.3
Operations – non-direct	118.2	121.2	123.6	126.1
Maintenance – direct	57.4	58.7	59.9	61.1
Maintenance – non-direct	33.5	34.4	35.1	35.8
Insurance	38.8	39.7	40.6	41.4
Electricity	2.6	2.6	2.7	2.7
Review events	5.2	5.3	5.5	5.6
Renewals allowance	85.6	90.5	92.7	93.6
Revenue offsets	–	–	–	–
QCA fee	1.8	1.8	1.9	1.9
Total allowable costs	**438.0**	**451.6**	**461.2**	**469.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Lower Mary WSS

Table 63: Total allowable costs, Lower Mary WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	32.1	32.9	33.5	34.2
Operations – non-direct	77.1	79.1	80.7	82.3
Maintenance – direct	15.3	15.7	16.0	16.3
Maintenance – non-direct	13.5	13.8	14.1	14.4
Insurance	18.8	19.2	19.6	20.0
Electricity	–	–	–	–
Review events	(4.9)	(5.0)	(5.2)	(5.3)
Renewals allowance	230.4	233.1	238.9	242.8
Revenue offsets	–	–	–	–
QCA fee	12.9	13.2	13.5	13.9
Total allowable costs	**395.1**	**401.9**	**411.2**	**418.6**
Costs transferred from distribution system	391.8	401.7	412.0	429.9
Total allowable costs allocated to tariff groups	**787.0**	**803.7**	**823.2**	**848.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Macintyre Brook WSS

Table 64: Total allowable costs, Macintyre Brook WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	413.9	424.4	433.0	441.6
Operations – non-direct	623.1	638.9	651.7	664.7
Maintenance – direct	120.0	123.1	125.5	128.0
Maintenance – non-direct	192.5	197.4	201.3	205.3
Insurance	283.3	290.0	296.5	302.4
Electricity	9.7	9.9	10.1	10.3
Review events	32.3	33.1	33.9	34.8
Renewals allowance	1,646.3	1,662.4	1,679.8	1,701.1
Revenue offsets	(1.8)	(1.8)	(1.9)	(1.9)
QCA fee	10.2	10.5	10.7	11.0
Total allowable costs	**3,329.4**	**3,387.7**	**3,440.8**	**3,497.4**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Maranoa River WSS

Table 65: Total allowable costs, Maranoa River WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	5.7	5.9	6.0	6.1
Operations – non-direct	4.8	5.0	5.1	5.2
Maintenance – direct	6.1	6.3	6.4	6.6
Maintenance – non-direct	7.3	7.5	7.6	7.8
Insurance	23.6	24.1	24.7	25.2
Electricity	–	–	–	–
Review events	5.9	6.0	6.2	6.3
Renewals allowance	18.5	18.9	19.1	19.2
Revenue offsets	–	–	–	–
QCA fee	0.5	0.5	0.5	0.5
Total allowable costs	**72.4**	**74.1**	**75.5**	**76.8**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Mareeba-Dimbulah WSS

Table 66: Total allowable costs, Mareeba-Dimbulah WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	368.3	377.6	385.2	392.9
Operations – non-direct	622.4	638.1	651.0	664.0
Maintenance – direct	124.1	127.2	129.8	132.4
Maintenance – non-direct	256.2	262.7	267.9	273.3
Insurance	293.4	300.3	307.1	313.2
Electricity	5.4	5.5	5.6	5.7
Review events	59.0	60.5	62.0	63.6
Renewals allowance	549.3	555.4	572.7	580.1
Revenue offsets	(703.9)	(721.9)	(740.2)	(758.7)
QCA fee	81.4	95.0	97.4	99.9
Total allowable costs	**1,655.5**	**1,700.4**	**1,738.6**	**1,766.4**
Costs transferred to Barron Falls Hydro	(49.6)	(50.8)	(51.4)	(51.9)
Total allowable costs allocated to tariff groups	**1,606.0**	**1,649.7**	**1,687.2**	**1,714.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Nogoa-Mackenzie WSS

Table 67: Total allowable costs, Nogoa-Mackenzie WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	1,134.4	1,163.2	1,186.6	1,210.2
Operations – non-direct	1,210.1	1,240.7	1,265.7	1,290.9
Maintenance – direct	290.6	297.7	303.7	309.8
Maintenance – non-direct	251.2	257.6	262.8	268.0
Insurance	1,005.9	1,029.8	1,053.0	1,074.0
Electricity	25.8	26.4	26.9	27.5
Review events	254.3	260.8	267.4	274.1
Renewals allowance	1,662.0	1,693.2	1,747.9	1,818.2
Revenue offsets	(107.7)	(110.5)	(113.3)	(116.1)
QCA fee	109.8	112.6	115.4	118.4
Total allowable costs	**5,836.4**	**5,971.5**	**6,116.1**	**6,275.0**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Pioneer River WSS

Table 68: Total allowable costs, Pioneer River WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	341.3	349.9	357.0	364.1
Operations – non-direct	225.4	231.1	235.7	240.4
Maintenance – direct	179.7	184.2	187.9	191.7
Maintenance – non-direct	271.7	278.6	284.2	289.9
Insurance	615.2	629.8	644.0	656.9
Electricity	11.0	11.3	11.5	11.7
Review events	102.8	105.5	108.1	110.8
Renewals allowance	938.2	948.9	977.7	1,002.2
Revenue offsets	(1.6)	(1.6)	(1.6)	(1.7)
QCA fee	27.0	27.7	28.4	29.2
Total allowable costs	**2,710.8**	**2,765.3**	**2,832.9**	**2,895.1**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Proserpine River WSS

Table 69: Total allowable costs, Proserpine River WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	412.7	423.2	431.7	440.3
Operations – non-direct	477.0	489.1	498.9	508.8
Maintenance – direct	153.9	157.8	161.0	164.2
Maintenance – non-direct	273.6	280.6	286.2	291.9
Insurance	348.3	356.6	364.6	371.9
Electricity	–	–	–	–
Review events	78.7	80.8	82.8	84.9
Renewals allowance	336.1	338.8	344.7	351.2
Revenue offsets	–	–	–	–
QCA fee	23.3	23.9	24.5	25.1
Total allowable costs	**2,103.6**	**2,150.6**	**2,194.3**	**2,238.3**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

St George WSS

Table 70: Total allowable costs, St George WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	437.7	448.8	457.8	467.0
Operations – non-direct	683.8	701.1	715.3	729.5
Maintenance – direct	137.4	140.9	143.8	146.6
Maintenance – non-direct	154.3	158.2	161.4	164.6
Insurance	225.9	231.3	236.5	241.2
Electricity	7.6	7.8	8.0	8.1
Review events	60.3	61.9	63.5	65.0
Renewals allowance	1,093.3	1,112.0	1,120.8	1,133.6
Revenue offsets	(2.3)	(2.4)	(2.5)	(2.5)
QCA fee	46.4	47.6	48.8	50.1
Total allowable costs	**2,844.6**	**2,907.3**	**2,953.4**	**3,003.3**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Three Moon Creek WSS

Table 71: Total allowable costs, Three Moon Creek WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	232.3	238.2	242.9	247.8
Operations – non-direct	295.1	302.6	308.6	314.8
Maintenance – direct	96.6	99.0	101.0	103.1
Maintenance – non-direct	140.5	144.1	147.0	149.9
Insurance	207.5	212.4	217.2	221.5
Electricity	2.6	2.6	2.7	2.7
Review events	43.8	44.9	46.1	47.2
Renewals allowance	537.0	547.7	555.2	578.7
Revenue offsets	–	–	–	–
QCA fee	8.1	8.3	8.5	8.8
Total allowable costs	**1,563.5**	**1,599.9**	**1,629.3**	**1,674.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Upper Burnett WSS

Table 72: Total allowable costs, Upper Burnett WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	411.4	421.8	430.3	438.9
Operations – non-direct	395.1	405.2	413.3	421.6
Maintenance – direct	149.4	153.2	156.3	159.4
Maintenance – non-direct	199.6	204.7	208.8	213.0
Insurance	194.8	199.4	203.9	208.0
Electricity	12.2	12.5	12.7	13.0
Review events	33.8	34.7	35.6	36.5
Renewals allowance	536.5	545.1	558.1	566.3
Revenue offsets	(0.8)	(0.8)	(0.8)	(0.8)
QCA fee	15.4	15.8	16.2	16.7
Total allowable costs	**1,947.6**	**1,991.6**	**2,034.5**	**2,072.4**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Upper Condamine WSS

Table 73: Total allowable costs, Upper Condamine WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	568.8	583.3	595.0	606.9
Operations – non-direct	725.8	744.2	759.2	774.3
Maintenance – direct	189.9	194.6	198.6	202.5
Maintenance – non-direct	187.7	192.4	196.3	200.2
Insurance	237.9	243.6	249.0	254.0
Electricity	155.8	159.5	163.6	166.9
Review events	41.9	43.0	44.1	45.2
Renewals allowance	510.9	516.6	536.5	556.6
Revenue offsets	(3.0)	(3.1)	(3.2)	(3.3)
QCA fee	17.3	17.8	18.2	18.7
Total allowable costs	**2,633.1**	**2,691.9**	**2,757.4**	**2,822.1**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

C.2 Distribution systems

Bundaberg distribution system

Table 74: Total allowable costs, Bundaberg distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	2,198.5	2,254.2	2,299.5	2,345.4
Operations – non-direct	2,819.2	2,890.6	2,948.7	3,007.6
Maintenance – direct	1,873.3	1,917.9	1,956.6	1,995.7
Maintenance – non-direct	1,766.9	1,811.7	1,848.1	1,885.0
Insurance	1,525.1	1,561.3	1,596.4	1,628.3
Electricity	5,171.0	5,253.2	5,348.8	5,455.8
Review events	(407.5)	(417.9)	(428.5)	(439.2)
Renewals allowance	2,837.6	2,900.7	2,985.3	3,088.1
Revenue offsets	(3.9)	(4.0)	(4.1)	(4.2)
QCA fee	–	–	–	–
Total allowable costs	**17,780.1**	**18,167.5**	**18,550.8**	**18,962.3**
Costs transferred to bulk scheme	(59.4)	(60.6)	(61.8)	(63.1)
Total allowable costs allocated to tariff groups	**17,720.7**	**18,106.9**	**18,489.0**	**18,899.3**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Burdekin-Haughton distribution system

Table 75: Total allowable costs, Burdekin-Haughton distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	4,810.1	4,931.9	5,031.1	5,131.5
Operations – non-direct	3,756.3	3,851.4	3,928.9	4,007.3
Maintenance – direct	3,412.3	3,492.2	3,562.8	3,633.9
Maintenance – non-direct	1,249.7	1,281.3	1,307.1	1,333.2
Insurance	906.5	928.0	948.9	967.8
Electricity	3,979.9	4,033.3	4,097.0	4,178.9
Review events	(902.0)	(925.1)	(948.6)	(972.3)
Renewals allowance	2,719.8	2,853.2	2,989.8	3,052.6
Revenue offsets	(963.5)	(988.2)	(1,013.2)	(1,038.5)
QCA fee	–	–	–	–
Total allowable costs	**18,969.2**	**19,458.0**	**19,903.8**	**20,294.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Lower Mary distribution system

Table 76: Total allowable costs, Lower Mary distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	223.5	229.2	233.8	238.5
Operations – non-direct	498.2	510.8	521.1	531.5
Maintenance – direct	255.6	261.8	267.1	272.4
Maintenance – non-direct	299.6	307.2	313.4	319.6
Insurance	121.0	123.8	126.6	129.2
Electricity	385.1	392.6	401.6	409.6
Review events	35.5	36.4	37.3	38.2
Renewals allowance	700.9	714.9	732.6	761.0
Revenue offsets	–	–	–	–
QCA fee	–	–	–	–
Total allowable costs	2,519.3	2,576.6	2,633.4	2,700.0
Costs transferred to bulk scheme	(391.8)	(401.7)	(412.0)	(429.9)
Total allowable costs allocated to tariff groups	**2,127.5**	**2,174.9**	**2,221.4**	**2,270.1**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Mareeba-Dimbulah distribution system

Table 77: Total allowable costs, Mareeba-Dimbulah distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	1,990.8	2,041.2	2,082.3	2,123.8
Operations – non-direct	2,224.2	2,280.6	2,326.5	2,372.9
Maintenance – direct	1,280.6	1,310.5	1,337.0	1,363.7
Maintenance – non-direct	1,075.0	1,102.2	1,124.4	1,146.8
Insurance	650.6	666.0	681.0	694.6
Electricity	568.8	580.0	592.1	604.0
Review events	99.4	101.9	104.5	107.1
Renewals allowance	102.4	111.9	144.2	161.9
Revenue offsets	(10.5)	(10.8)	(11.1)	(11.3)
QCA fee	–	–	–	–
Total allowable costs	**7,981.3**	**8,183.7**	**8,380.9**	**8,563.5**

Notes: Totals may not add due to rounding. Total allowable costs include costs allocated to irrigation and non-irrigation customers. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis.

Appendix D: Giru Groundwater tariff group

The Giru Groundwater tariff group includes all supplemented water access entitlements (WAEs) in Haughton Zone A[397], which encompasses the area from the supplementation point on the Haughton River from the channel system downstream to the Giru Benefited Groundwater Area (GBGA).[398] In addition to customers located in the GBGA, this tariff group includes a small number of irrigation customers located upstream along the Haughton River.[399]

In the 2020 review we recommended that the Giru Groundwater tariff group be treated as part of the distribution system and that the same price target apply across the Burdekin distribution system. This was a change from the 2012 review,[400] and it reflected our assessment of the water planning and regulatory framework, hydrological issues and cost and service levels.[401]

Sunwater considered that current pricing practices are an appropriate pricing response to the policy settings contained in the *Water Plan (Burdekin Basin) 2007* and that it did not have any information that would support a change to the findings in the 2020 review in relation to cost-to-serve and service levels. Sunwater's preference was for the continuation of current cost allocation and pricing practices in the scheme.[402]

Stakeholders in the Burdekin–Haughton distribution system had divergent views on the appropriate approach to cost allocation and pricing. GBGA stakeholders did not support the 2020 review's recommended pricing approach on the basis that:

- the prior recognition of natural (unsupplemented) yield should be reinstated and reflected in pricing (i.e. no charge for natural yield)
- there are differences in the level and cost of service for customers in the Giru Groundwater tariff group compared to other Burdekin Channel customers, which should be recognised in pricing.[403]

Other Burdekin channel stakeholders, however, supported the QCA's 2020 review recommendation that the Giru Groundwater tariff group transition to the Burdekin Channel tariff.[404] Capacity to pay was also raised as an issue by stakeholders (see Chapter 11).

Water planning and regulatory framework

The Haughton River is supplemented by water from the Burdekin River that is pumped via the Haughton main channel (HMC) to the Haughton balancing storage (HBS). This storage then provides water to riparian irrigators along the Haughton River, within the GBGA, on the Haughton

[397] Haughton Zone A is defined in Schedule 2B of the *Water Plan (Burdekin Basin) 2007*.
[398] The Giru Benefited Groundwater Area is defined in Schedules 3 and 10 of the *Water Plan (Burdekin Basin) 2007*.
[399] Sunwater, response to RFI 142.
[400] In the 2012 review our recommended charge for irrigators in the GBGA was 51% of the Burdekin Channel price. We considered that this level of cost recovery reflected the cost incurred by Sunwater, based on the information available at the time of the review.
[401] QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, 2020, pp. 114–121.
[402] Sunwater, sub. 9, p. 130.
[403] Giru Benefited Area Committee, sub. 51; Queensland Cane Agriculture and Renewables Limited (QCAR), Australian Cane Farmers Association Limited (ACFA) and AgForce Cane Board Limited (ACL) joint submission, sub. 58.
[404] BRIA Irrigators, sub. 42, pp. 4, 8–10.

channel system and for Townsville/Thuringowa urban water use during periods of low storage levels in Ross River Dam.

Haughton Zone A, including the GBGA, therefore receives a supplemented supply, which is delivered using the HMC and HBS, the weirs on the Haughton River (Val Bird Weir and Giru Weir), natural channels, relift pump stations and lagoons that distribute water through a combination of surface supply and groundwater recharge.

GBGA stakeholders highlighted the historical recognition of the groundwater aquifer in the GBGA and its contribution to supply in earlier arrangements that pre-date the dam and the Burdekin–Haughton WSS.[405]

The natural (unsupplemented) yield of the area was acknowledged in the 2004 Interim Resource Operations licence (IROL) for Burdekin–Haughton WSS. Of the total allocations along the Haughton regulated area and Giru benefited area at that time, 19,700 ML (49%) was supplied by the natural yield of the Haughton storage/underground water system, and 20,549 ML (51%) from the Burdekin River via the HMC. These allocations included underground water allocations in the Giru benefited underground water area.[406] The IROL has since been replaced by the Burdekin–Haughton WSS Resource Operations Licence (ROL),[407] with the IROL now having no legal standing.

Under the 2007 Burdekin Basin water plan, groundwater in the GBGA is declared to be surface water – that is, no distinction is made between groundwater and surface water, and they are managed as a single resource. This reflects the strong hydrological connectivity between groundwater and surface water in the GBGA:

> Under provisions of the Act, the draft WRP proposed that water in an aquifer under watercourses or adjacent land in the Giru Benefited Groundwater Area (GBGA) be declared water in a watercourse.
>
> This recognises that surface flows and underlying aquifers are so closely linked in this area that the two sources are, in effect, one and the same. In the GBGA, this recognised linkage is used to supplement entitlements with releases from Burdekin Falls Dam that are diverted to the Haughton River.
>
> On this basis, the draft WRP provided for entitlements in the GBGA to convert to tradable water allocations.[408]

Under the water plan and ROL, each allocation is treated as a single supplemented entitlement and, from a water planning perspective, it is all the same supplemented water. Further, the water plan specifies the same water allocation security objectives for water allocations across the scheme – that is, there is no difference in the security of entitlement across the scheme or between zones.

We consider it appropriate to recognise pre-existing rights to free water where they are part of a current agreement, legislation or government policy. However, the current water planning framework no longer recognises 19,700 ML of unsupplemented yield in the GBGA, treating all entitlements in the area as supplemented. We also note that the referral does not specify any free water allocations or other distinct pricing approach for irrigators in the GBGA specifically or for the

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[405] QCAR, ACFA and ACL joint submission, sub. 58, p. 4 and Attachment 1, pp. 5–8.
[406] Department of Natural Resources and Mines, *Interim Resource Operations Licence for Burdekin Haughton Water Supply Scheme*, issued to Sunwater, Queensland Government, December 2004, p. 26.
[407] Burdekin Haughton Water Supply Scheme Resource Operations Licence.
[408] Department of Natural Resources and Water, *Burdekin Basin water resource plan*, consultation report, Queensland Government, September 2007, pp. 23–24.

Giru Groundwater tariff group (as it does for Lower Burdekin Water).[409] Therefore, we do not consider that there is a current government agreement, legislation or policy in place that would provide a basis for us to recognise an amount of unsupplemented yield as effectively free water for the Giru Groundwater tariff group. Further, we consider that water planning and regulatory frameworks are a matter for government, and we should recommend prices that are consistent with those frameworks.

Differential pricing

GBGA stakeholders submitted that a price discount should apply to the Giru Groundwater tariff group due to differences in Sunwater's costs and the level of service they receive.[410]

As an established tariff group, the Giru Groundwater tariff group could potentially have a different price target should this be considered appropriate based on differences in cost and/or service levels. However, given the constraints in the referral regarding the establishment of new tariff groups,[411] we can only consider the appropriate price for the Giru Groundwater tariff group (effectively Haughton Zone A). We cannot separately define a price for GBGA customers.

The 2020 review found that the same price should apply across the Burdekin–Haughton distribution system. For this review, we have considered whether there is any new information or evidence of material differences in Sunwater's costs and/or level of service for the Giru Groundwater tariff group.

Cost

Stakeholders' views on the question of possible cost differences between the tariff groups varied considerably, with material submitted both in support of and against the view that there is a material cost difference for the Giru Groundwater tariff group compared to other distribution tariff groups.

GBGA stakeholders submitted that there are differences in Sunwater's operating and maintenance costs and service levels between the distribution tariff groups.[412] Information provided by Sunwater to the Giru Benefited Area Committee identified some areas of difference:

- *Cost of delivery* – following wet weather, Giru Groundwater tariff group customers may be able to take water for extended periods (sometimes months) without the requirement for supplementation from the channel system. However, supply to Burdekin Channel customers requires Sunwater to pump water into the channels.
- *Monitoring and maintenance costs* – significantly different levels of management and maintenance are required due to the higher level of mechanical intervention and proximity of customer offtakes for Burdekin Channel customers, and the potential for greater impacts if any issues arise in the channel system.[413]

GBGA stakeholders submitted information that purported to show a material difference in the cost of supplying the Giru benefited area sub-scheme compared to other Burdekin channel sub-

[409] The referral provides that, for the Burdekin–Haughton WSS, the costs of Sunwater supplying 185,000 ML to Lower Burdekin Water are not to be recovered from the prices applying to the remaining water entitlements (see the referral, p. 10).
[410] QCAR, ACFA and ACL joint submission, sub. 58; Giru Benefited Area Committee, sub. 51.
[411] The referral states that where new tariff groups are to be considered, the QCA is to avoid shifting costs from one customer or group of customers to another, within a water supply scheme, in the absence of the businesses having significant commercial interest in the change, and in the absence of agreement from customers (referral, section 1).
[412] Giru Benefited Area Committee, sub. 51, p. 3; QCAR, sub. 58, Attachment 1, p. 21 and Attachment 5.
[413] QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5, pp. 9, 11.

schemes.[414] This comparison, based on Sunwater's direct opex and renewals costs for the period 2011–12 to 2015–16, indicated Sunwater's cost of supply for this period is $11.32/ML for the Giru benefited area sub-scheme compared to $42.36/ML for channel customers.

However, this calculated cost of supply for the Giru benefited area sub-scheme only includes the costs directly attributable to this sub-scheme, and excludes a share of the costs for Burdekin channel infrastructure needed to transport water to the Giru benefited area sub-scheme.[415] Infrastructure in the Haughton transmission system – such as the Tom Fenwick pump station, HMC and HBS – is used to deliver water to the Giru benefited area sub-scheme (for example, during dry periods)[416] and also to deliver water to the Barratta and Haughton channel sub-systems.[417] This shared infrastructure also provides benefits to Giru Groundwater tariff group customers both in terms of the security and flexibility of water supply.

BRIA Irrigators said that should a discount for GBGA customers be applied, any costs associated with supplying GBGA customers should not be recovered from other Burdekin channel customers.[418] BRIA Irrigators said that Burdekin–Haughton scheme channel distribution customers would not support a discount for the Giru Groundwater tariff group unless:

- Sunwater recovers from Giru Groundwater tariff group customers the full channel tariff for every megalitre (ML) diverted from the HBS to Haughton Zone A
- Sunwater recovers from Giru Groundwater tariff group customers the full operational, maintenance and renewal costs of all assets associated with diversions to the Haughton River, including the HBS outlet and meter, the Val Bird Weir, the Giru Weir and relift pumps
- the overflow from the HBS into the river is raised so that there are no involuntary releases into the Haughton River.[419]

A true estimate of the cost to serve customers in the Giru Groundwater tariff group would need to reflect the cost of delivering water to the Haughton River via channel infrastructure, as well as the costs associated with the Val Bird Weir and Giru Weir and other infrastructure required to supply this tariff group. That is, any differential tariff for this tariff group would need to include:

- bulk costs
- the Giru Groundwater tariff group's share of the costs of operating and maintaining shared Burdekin channel infrastructure – the Tom Fenwick pump station (3 pump stations), HMC and HBS
- the full cost of operating and maintaining infrastructure required specifically for the supply of customers in the Giru Groundwater tariff group, including Healey's Lagoon pump station, Reed Beds relift pump station and pipeline, Val Bird Weir and Giru Weir
- associated overhead and indirect costs.

Sunwater said it has not conducted a detailed cost-to-serve review of the Burdekin distribution service and it does not have an allocation methodology to assign channel costs between sub-

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[414] QCAR, ACFA and ACL joint submission, sub. 58.
[415] Also, some costs (such as indirect, corporate overhead and electricity costs) are not included. The data for Burdekin Channel costs is comprised of all other (i.e. non-Giru benefited area) sub-scheme groups. The QCAR, ACFA and ACL joint submission included another estimate of an average cost of supply for GBGA of $12.88/ML for the period 2010–11 to 2014–15, sourced from Sunwater's 2015 Network Service Plan (NSP) consultation feedback summary. This identified $320,000 in Giru benefited area costs transferred from the bulk water to the distribution service contract as a result of reclassifying the Giru benefited area infrastructure from bulk to distribution assets (QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5).
[416] QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5.
[417] Sunwater, response to RFI 114.
[418] BRIA Irrigators, sub. 42, pp. 8–10.
[419] BRIA Irrigators, sub. 42, pp. 9–10.

schemes. It said that any holistic review of cost allocation would require at least two years given competing stakeholder views, and may have unintended outcomes.[420] Nevertheless, Sunwater considered that the Giru benefited area sub-scheme is likely to be one of the higher-cost systems in the Burdekin distribution service and that the likely outcome of a more detailed cost-to-serve review would not be in the best interests of Giru benefited area customers.[421] Given the limitations on the cost data available at sub-scheme level,[422] we have been unable to confirm this. However, we consider it likely that costs (on a ML of entitlement basis) would be comparable to other sub-systems that use HMC system infrastructure (i.e. Barratta and Haughton sub-schemes).

Stakeholders also raised a concern with the classification of the Haughton River weirs as distribution assets.[423] Sunwater reclassified Val Bird Weir and Giru Weir as distribution assets in 2014–15, on the basis that these were previously incorrectly categorised as bulk assets. It considered these assets to be integral to the GBGA distribution system. We understand that, as part of the Local Management Arrangements (LMAs) process previously undertaken to consider local management of Sunwater's distribution services, the Giru benefited area assets were identified as distribution system assets to be transferred to a LMA in the event that Sunwater relinquished management of the system.[424] As this process concluded in 2019 and local management did not proceed for the Burdekin–Haughton distribution system, we understand that any findings as part of that review have no current standing.

Consistent with the requirements of the referral, our task is to recommend prices that reflect the allowable costs of providing the service. It is the prudent and efficient cost of providing the service to the customers in the Giru Groundwater tariff group that is therefore relevant to this assessment, rather than the classification of assets. As noted above, a fully cost-reflective price for this tariff group based on allocated infrastructure costs would need to include bulk costs, a share of the costs of channel assets, the entire cost of the infrastructure specifically required to serve customers in this tariff group and associated overhead and indirect costs (regardless of asset classification). Our recommendation in the 2020 review that the Giru Groundwater tariff group have the same price target as other customers in the Burdekin distribution system reflected our overall assessment of the cost to serve this sub-scheme and did not rely on the classification of assets, as suggested by some stakeholders.

Level of service

As irrigators in the Giru Groundwater tariff group access water either from the Haughton River (including from the Val Bird Weir and Giru Weir) or from bores, they use their own infrastructure to pump water to higher levels and over some distance to farms via pipelines, incurring costs in addition to Sunwater's charges in order to access water.[425] In contrast, Sunwater provides water directly to other channel system users through reticulation channels that connect to each customer's property through a dedicated customer offtake.[426]

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[420] Sunwater, sub. 9, p. 130.
[421] Sunwater, response to RFI 114.
[422] Sunwater, response to RFI 143.
[423] Giru Benefited Area Committee, sub. 51, pp. 3-4; QCAR, ACFA and ACL joint submission, sub. 58, p. 6.
[424] Sunwater, response to RFI 111. This included the Haughton diversion channel; Val Bird Weir and Giru Weir (irrigation weirs); Healey's Lagoon pump station; Reed Beds pump station; GBA River and Groundwater customer meters; and GBA Groundwater monitoring bores.
[425] QCAR, ACFA and ACL joint submission, sub. 58, p. 4.
[426] A significant proportion of channel customers appear to have water delivered under pressure. BRIA Irrigators said that less than 50% of channel customers' farms are gravity fed, with the majority incurring re-lift pumping costs; QCAR, ACFA and ACL submitted that 80% of channel irrigators have water delivered under pressure (BRIA Irrigators, sub. 42, p. 9; QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5, p. 1).

We acknowledge that Giru Groundwater tariff group customers have additional costs compared to many channel customers because of the need to pump water from the Haughton River (including weirs) or groundwater bores. However, our task under the referral is to assess the prudent and efficient cost of Sunwater providing its service. On-farm costs are outside the scope of our review.

GBGA stakeholders also said they received a different level of service because, unlike channel customers, they do not have peak flow entitlements (PFEs).[427] PFEs provide a mechanism for Sunwater to restrict flows to each customer's outlet in the channel system during periods of peak demand.[428]

We understand that the customers in the Giru benefited area do not have PFEs due to the different operating characteristics of the sub-scheme. Sunwater must maintain Val Bird Weir and Giru Weir at specified levels under the ROL. Sunwater said that customers in the Giru benefited area have storage on Val Bird Weir and Giru Weir that carry them through the peak flow period, generally meaning they can access their water (surface or groundwater) without constraint. QCAR, ACFA and ACL submitted that the reliability of groundwater services is often lower than for channel water services.[429] Sunwater acknowledged that there has been a shift in irrigation practices in the sub-scheme, with more customers taking surface water directly from weirs in preference to groundwater. However, it advised that in the highly unusual circumstances where it is unable to maintain weir levels above the minimum operating level, there is no contractual impediment to customers taking water from the ground.[430]

Sunwater said there have been 15 PFE events since 2016, with a maximum duration of 12 days (though typically less), affecting 1,733 offtakes, and that Giru benefited area customers were not impacted by any of these events. Sunwater advised that the data for this period is representative of long-term frequency and duration of PFE events.[431] Generally, Sunwater considered that Giru benefited area customers' access to water is unaffected during periods when other systems with a PFE are restricted.

As customers in the Giru benefited area tariff group do not have an equivalent entitlement to (restricted) supply that is provided to channel customers by PFEs, this may reflect a difference in service levels. However, the storage capacity of the weirs and groundwater provides some security of entitlements for these customers during periods of peak demand. Further, it appears that constrained flows in the channel system during peak periods have not had an impact on supply to customers in the Giru benefited area.

Summary

Our initial view is that there is likely to be some difference in cost and service levels for customers in the Giru Groundwater tariff group compared to other distribution system customers given the different nature of the operational system. However, taking into account the assets required to serve

[427] QCAR, ACFA and ACL joint submission, sub. 58, p. 4, Attachment 5, Sch. 2, pp. 10–11.
[428] Peak demand periods typically occur when very hot conditions follow a rainfall event, resulting in a period when customers all want to irrigate on the same 2 or 3 days. Sunwater said these events typically last 10 days (but can be as long as 15 days). They do not occur every year due to the range of contributing factors. PFEs for channel customers are implemented through provisions in the Channel/Pipeline contract and the Burdekin-Haughton Water Supply Scheme: Scheme Rules and Targets (Sunwater, response to RFI 137).
[429] QCAR, ACFA and ACL joint submission, sub. 58, p. 3.
[430] Sunwater, response to RFI 137. Sunwater noted that Giru benefited area customers also benefit in these periods of peak demand from some flow due to Townsville City Council not using its allocation, freeing up capacity that would otherwise not be available.
[431] Sunwater, response to RFI 137. Sunwater did not collect PFE data separately before 2016. Sunwater noted only one instance (in 2012) where customers at the end of the Giru benefited area system could not access water for an extended period of time (about 6 weeks) due to an Ergon power outage that impeded its ability to release sufficient water to the weirs to meet demand.

customers in this tariff group, our draft position remains that any such difference is not sufficiently material to warrant a different (lower) price for the Giru Groundwater tariff group.

Extent of supplementation by the channel system

In the case of watercourses supplemented by channel systems, costs could differ if materially less than 100% of water supplied is sourced from the channel system. In this case, a possible approach may be to assign to the Giru Groundwater tariff group a portion of channel system costs (based on the percentage of water supplied from the channel system) plus the full cost of the assets required to serve customers in this tariff group.

BRIA Irrigators did not accept a discounted Giru Groundwater tariff based on 49% of metered use being unsupplemented yield that attracts no charge. It acknowledged that the Haughton River provides some unsupplemented yield and noted that it is only the volume of unsupplemented yield utilised that is relevant for pricing purposes. BRIA Irrigators considered that the volume of unsupplemented yield being utilised should be calculated as Giru Groundwater customers' metered usage minus Sunwater's metered releases of channel water from the HBS to the Haughton River.[432]

The 2020 review concluded that the system was on average 95–100% supplemented by the channel system; therefore, non-HBS releases were not sufficient to warrant a cost offset.[433]

Our assessment of the extent of supplementation of Haughton Zone A (including the GBGA) by the channel system using updated data indicates that, on average, water diverted from the channel system is around 97% of total water used by customers along the Haughton River.[434] Therefore, it remains the case that Haughton Zone A (including the GBGA) is a system that is materially supplemented by water delivered by the channel system.

GBGA stakeholders have said that this assessment needs to take into account any temporary transfers of water allocations for use by non-GBGA irrigators in the upper Haughton Zone A.[435] In the 2020 review, our consultant (Water Solutions) considered it was reasonable to include releases and usage associated with temporary transfers in calculating the efficiency of Haughton Zone A, noting that they are a part of scheme operation rules and provide a benefit that can be used by any allocation holder in the scheme. Also, as noted above, the Giru Groundwater tariff group includes a small number of non-GBGA irrigators (effectively corresponding to customers in Haughton Zone A). Therefore, it is appropriate to include releases and usage (including those from temporary transfers) associated with non-GBGA irrigators in Haughton Zone A when considering the extent of supplementation by the channel system.

Summary

Based on the information available to us at this time, our preliminary view is that:

- as the current water planning and regulatory framework treats all entitlements in Haughton Zone A (including GBGA) as supplemented, there does not appear to be a basis for providing

[432] BRIA Irrigators, sub. 42, p. 9.
[433] QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, 2020, pp. 118–120.
[434] The extent of supplementation of Haughton Zone A by the channel system can be calculated by dividing metered usage (extractions) by Giru Groundwater tariff group customers by diversions (releases) from the HBS. This gives an estimate of the 'efficiency' of the system. The updated data shows an average efficiency for the period 2006–07 to 2022–23 of approximately 103%, meaning that the volume of HBS releases is equal to about 97% of the volume of water used by Giru Groundwater tariff group customers.
[435] Giru Benefited Area Committee, sub. 51, p. 4; QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5, pp. 3-4.

a discount to the Giru Groundwater tariff group customers to account for 'unsupplemented yield'

- price differentiation for the Giru Groundwater tariff group is not warranted, when all relevant costs are considered
- Haughton Zone A (including the GBGA) remains materially supplemented by water delivered by channel infrastructure.

Appendix E: Draft price targets

E.1 Bulk water supply schemes

Table 78 below shows the 2024–25 price and our draft price targets for Sunwater's bulk schemes.

Table 78: Existing price and our draft price targets – bulk schemes ($/ML, nominal)

Tariff group	Price	2024–25 price	Draft price targets			
			2025–26	2026–27	2027–28	2028–29
Barker Barambah River	Part A	38.51	51.87	53.19	54.55	55.94
	Part B	4.55	8.19	8.40	8.62	8.84
Barker Barambah Redgate Relift	Part A	38.51	52.50	53.84	55.21	56.62
	Part B	24.65	32.44	33.27	34.11	34.98
Bowen Broken Rivers	Part A	7.80	9.00	9.23	9.46	9.71
	Part B	8.04	7.08	7.26	7.45	7.64
Boyne River and Tarong	Part A	19.05	15.99	16.40	16.82	17.24
	Part B	2.14	3.36	3.45	3.53	3.62
Bundaberg	Part A	13.13	13.62	13.97	14.33	14.69
	Part B	1.08	1.41	1.44	1.48	1.52
Burdekin-Haughton	Part A	4.19	6.02	6.17	6.33	6.49
	Part B	0.37	0.75	0.77	0.78	0.80
Callide Valley	Part A	30.39	100.73	103.29	105.93	108.63
	Part B	9.50	12.80	13.12	13.46	13.80
Chinchilla Weir	Part A	21.32	26.69	27.37	28.07	28.78
	Part B	4.03	5.52	5.66	5.80	5.95
Cunnamulla	Part A	35.84	42.60	43.69	44.80	45.95
	Part B	2.07	1.41	1.45	1.49	1.52
Dawson Valley River (high priority)	Part A	56.91	110.78	113.61	116.50	119.47
	Part B	1.73	2.12	2.18	2.23	2.29
Dawson Valley River (medium priority)	Part A	23.13	22.36	22.93	23.52	24.12
	Part B	1.73	2.12	2.18	2.23	2.29
Eton (high B priority)	Part A	35.87	32.96	33.80	34.66	35.55
	Part B	4.39	5.36	5.50	5.64	5.78
Eton (high A priority local management supply)	Part A	133.91	120.52	123.59	126.74	129.98
	Part B	4.39	5.36	5.50	5.64	5.78
Eton risk priority[a]	Part B	n.a.	38.32	39.30	40.30	41.33
Lower Fitzroy	Part A	13.22	13.92	14.28	14.64	15.02
	Part B	1.08	1.63	1.67	1.72	1.76

Tariff group	Price	2024–25 price	Draft price targets			
			2025–26	2026–27	2027–28	2028–29
Lower Mary – Mary Barrage	Part A	6.79	6.74	6.91	7.08	7.27
	Part B	0.94	1.06	1.09	1.12	1.14
Lower Mary – Tinana & Teddington	Part A	19.26	26.54	27.21	27.91	28.62
	Part B	12.93	17.58	18.03	18.49	18.96
Macintyre Brook	Part A	63.30	115.29	118.23	121.25	124.34
	Part B	4.39	7.94	8.14	8.35	8.56
Maranoa River	Part A	68.27	86.41	88.62	90.88	93.19
	Part B	71.03	103.37	106.00	108.71	111.48
Mareeba-Dimbulah – Access Charge	$/cust	751.50	770.66	790.31	810.46	831.13
Mareeba-Dimbulah – River Tinaroo/Barron	Part A	6.03	3.39	3.47	3.56	3.65
	Part B	0.70	0.59	0.60	0.62	0.63
Nogoa-Mackenzie (medium priority)	Part A	7.25	11.56	11.86	12.16	12.47
	Part B	0.92	1.93	1.98	2.03	2.08
Nogoa-Mackenzie (medium priority local management supply)	Part A	7.09	11.56	11.86	12.16	12.47
	Part B	0.90	1.93	1.98	2.03	2.08
Nogoa-Mackenzie (high priority)	Part A	41.73	74.02	75.91	77.85	79.83
	Part B	0.90	1.93	1.98	2.03	2.08
Pioneer River	Part A	21.90	22.34	22.91	23.50	24.10
	Part B	4.01	4.41	4.53	4.64	4.76
Proserpine River	Part A	15.16	17.98	18.44	18.91	19.39
	Part B	3.71	4.66	4.78	4.90	5.03
St George (medium priority)	Part A	24.48	31.36	32.16	32.98	33.82
	Part B	1.16	1.58	1.62	1.66	1.70
St George (high priority local management supply)	Part A	39.94	49.53	50.80	52.09	53.42
	Part B	1.16	1.58	1.62	1.66	1.70
Three Moon Creek	Part A	37.25	68.29	70.03	71.82	73.65
	Part B	5.22	10.93	11.21	11.49	11.78
Upper Burnett – Regulated Section of the Nogo/Burnett River	Part A	43.59	47.01	48.21	49.44	50.70
	Part B	4.46	7.08	7.26	7.44	7.63
Upper Burnett – John Goleby Weir	Part A	41.82	47.01	48.21	49.44	50.70
	Part B	4.46	7.08	7.26	7.44	7.63
Upper Condamine –Sandy Creek or Condamine River	Part A	16.89	22.75	23.33	23.92	24.53
	Part B	6.33	10.85	11.12	11.41	11.70
Upper Condamine – North Branch	Part A	16.97	23.89	24.50	25.12	25.76
	Part B	19.14	31.54	32.35	33.17	34.02

Tariff group	Price	2024–25 price	Draft price targets			
			2025–26	2026–27	2027–28	2028–29
Upper Condamine – Risk A	Part A	13.86	22.13	22.70	23.27	23.87
	Part B	20.69	31.54	32.35	33.17	34.02

a This is a new tariff group as there was no government determined price for 2024–25.
Source: QCA analysis.

E.2 Distribution systems

Table 79 below shows the 2024–25 price and our draft price targets for Sunwater's distribution systems.

Table 79: Existing price and our draft price targets – distribution systems ($/ML, nominal)

Tariff group	Price	2024–25 price	Draft price targets			
			2025–26	2026–27	2027–28	2028–29
Bundaberg channel	Part A	13.13	13.62	13.97	14.33	14.69
	Part B	1.08	1.41	1.44	1.48	1.52
	Part C	54.54	90.32	92.62	94.98	97.40
	Part D	58.08	47.83	49.05	50.30	51.58
	Fixed	**67.67**	**103.94**	**106.59**	**109.31**	**112.09**
	Volumetric	**59.16**	**49.24**	**50.49**	**51.78**	**53.10**
Burdekin channel	Part A	4.10	6.02	6.17	6.33	6.49
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	45.69	46.86	48.05	49.28
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**51.71**	**53.03**	**54.38**	**55.77**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**
Burdekin – Giru Groundwater	Part A	4.10	6.02	6.17	6.33	6.49
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	29.40	45.69	46.86	48.05	49.28
	Part D	16.43	19.93	20.44	20.96	21.50
	Fixed	**33.50**	**51.71**	**53.03**	**54.38**	**55.77**
	Volumetric	**16.79**	**20.68**	**21.21**	**21.75**	**22.30**
Burdekin – Glady's Lagoon (other than Natural Yield)	Part A	4.10	6.02	6.17	6.33	6.49
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	45.69	46.86	48.05	49.28
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**51.71**	**53.03**	**54.38**	**55.77**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**

Tariff group	Price	2024 -25 price	Draft price targets			
			2025-26	2026-27	2027-28	2028-29
Lower Mary channel	Part A	6.64	6.74	6.91	7.08	7.27
	Part B	0.92	1.06	1.09	1.12	1.14
	Part C	59.07	131.17	134.52	137.95	141.46
	Part D	71.62	51.94	53.26	54.62	56.01
	Fixed	**65.71**	**137.91**	**141.43**	**145.03**	**148.73**
	Volumetric	**72.54**	**53.00**	**54.35**	**55.74**	**57.15**
Mareeba-Dimbulah – outside a relift up to 100 ML	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	57.63	69.98	71.76	73.59	75.47
	Part D	6.31	7.77	7.96	8.17	8.38
	Fixed	**63.53**	**73.36**	**75.23**	**77.15**	**79.12**
	Volumetric	**6.99**	**8.35**	**8.57**	**8.78**	**9.01**
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	50.82	61.71	63.28	64.89	66.55
	Part D	6.31	7.77	7.96	8.17	8.38
	Fixed	**56.72**	**65.09**	**66.75**	**68.46**	**70.20**
	Volumetric	**6.99**	**8.35**	**8.57**	**8.78**	**9.01**
Mareeba-Dimbulah – outside a relift over 500 ML	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	39.46	47.91	49.14	50.39	51.67
	Part D	6.31	7.77	7.96	8.17	8.38
	Fixed	**45.36**	**51.30**	**52.61**	**53.95**	**55.32**
	Volumetric	**6.99**	**8.35**	**8.57**	**8.78**	**9.01**
Mareeba-Dimbulah – river sup. Streams & Walsh River	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	27.16	32.29	33.11	33.96	34.82
	Part D	3.79	4.66	4.78	4.90	5.03
	Fixed	**33.06**	**35.67**	**36.58**	**37.52**	**38.47**
	Volumetric	**4.47**	**5.25**	**5.38**	**5.52**	**5.66**
Mareeba-Dimbulah – relift	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.64	0.59	0.60	0.62	0.63
	Part C	51.02	72.48	74.32	76.22	78.16
	Part D	94.21	88.59	90.85	93.17	95.54
	Fixed	**56.92**	**75.86**	**77.80**	**79.78**	**81.81**
	Volumetric	**94.85**	**89.18**	**91.45**	**93.78**	**96.17**

Source: QCA analysis.

Appendix F: Draft prices

F.1 Bulk water supply schemes

Table 80 below shows the 2024–25 price and our draft prices for Sunwater's bulk schemes.

Table 80: Existing price and our draft prices – bulk schemes ($/ML, nominal)

Tariff group	Price	2024–25 price	Draft prices			
			2025–26	2026–27	2027–28	2028–29
Barker Barambah River	Part A	38.51	42.10	45.84	49.75	53.83
	Part B	4.55	4.67	4.78	4.91	5.03
Barker Barambah Redgate Relift	Part A	38.51	42.10	45.84	49.75	53.83
	Part B	24.65	25.28	25.92	26.58	27.26
Bowen Broken Rivers	Part A	7.80	9.00	9.23	9.46	9.71
	Part B	8.04	7.08	7.26	7.45	7.64
Boyne River and Tarong	Part A	19.05	15.99	16.40	16.82	17.24
	Part B	2.14	3.36	3.45	3.53	3.62
Bundaberg	Part A	13.13	13.62	13.97	14.33	14.69
	Part B	1.08	1.41	1.44	1.48	1.52
Burdekin-Haughton	Part A	4.19	6.02	6.17	6.33	6.49
	Part B	0.37	0.75	0.77	0.78	0.80
Callide Valley	Part A	30.39	33.77	37.30	40.99	44.85
	Part B	9.50	9.74	9.99	10.25	10.51
Chinchilla Weir	Part A	21.32	24.47	27.37	28.07	28.78
	Part B	4.03	4.13	4.63	5.80	5.95
Cunnamulla	Part A	35.84	39.36	43.03	44.80	45.95
	Part B	2.07	1.41	1.45	1.49	1.52
Dawson Valley River (high priority)	Part A	56.91	60.97	65.19	69.59	74.18
	Part B	1.73	1.77	1.82	1.87	1.91
Dawson Valley River (medium priority)	Part A	23.13	22.36	22.93	23.52	24.12
	Part B	1.73	2.12	2.18	2.23	2.29
Eton (high B priority)	Part A	35.87	32.96	33.80	34.66	35.55
	Part B	4.39	5.36	5.50	5.64	5.78
Eton (high A priority local management supply)	Part A	133.91	120.52	123.59	126.74	129.98
	Part B	4.39	5.36	5.50	5.64	5.78
Eton risk priority[a]	Part B	n.a.	38.32	39.30	40.30	41.33
Lower Fitzroy	Part A	13.22	13.92	14.28	14.64	15.02
	Part B	1.08	1.63	1.67	1.72	1.76

Bulk water supply scheme	Price	2024-25 price	Draft prices			
			2025-26	2026-27	2027-28	2028-29
Lower Mary – Mary Barrage	Part A	6.79	6.74	6.91	7.08	7.27
	Part B	0.94	1.06	1.09	1.12	1.14
Lower Mary – Tinana & Teddington	Part A	19.26	22.36	25.60	27.91	28.62
	Part B	12.93	13.26	13.60	15.03	18.22
Macintyre Brook	Part A	63.30	67.52	71.91	76.48	81.24
	Part B	4.39	4.50	4.62	4.73	4.86
Maranoa River	Part A	68.27	72.62	77.14	81.84	86.74
	Part B	71.03	72.84	74.70	76.60	78.56
Mareeba-Dimbulah – Access Charge	$/cust	751.50	770.66	790.31	810.46	831.13
Mareeba-Dimbulah – River Tinaroo/Barron	Part A	6.03	3.39	3.47	3.56	3.65
	Part B	0.70	0.59	0.60	0.62	0.63
Nogoa-Mackenzie (medium priority)	Part A	7.25	10.04	11.86	12.16	12.47
	Part B	0.92	0.94	1.98	2.03	2.08
Nogoa-Mackenzie (medium priority local management supply)	Part A	7.09	9.88	11.86	12.16	12.47
	Part B	0.90	0.92	1.89	2.03	2.08
Nogoa-Mackenzie (high priority)	Part A	41.73	45.40	49.23	53.22	57.39
	Part B	0.90	0.92	0.95	0.97	1.00
Pioneer River	Part A	21.90	22.34	22.91	23.50	24.10
	Part B	4.01	4.41	4.53	4.64	4.76
Proserpine River	Part A	15.16	17.98	18.44	18.91	19.39
	Part B	3.71	3.97	4.78	4.90	5.03
St George (medium priority)	Part A	24.48	27.71	31.09	32.98	33.82
	Part B	1.16	1.19	1.22	1.66	1.70
St George (high priority local management supply)	Part A	39.94	43.56	47.35	51.29	53.42
	Part B	1.16	1.19	1.22	1.25	1.70
Three Moon Creek	Part A	37.25	40.80	44.52	48.39	52.43
	Part B	5.22	5.35	5.49	5.63	5.77
Upper Burnett – Regulated Section of the Nogo/Burnett River	Part A	43.59	47.01	48.21	49.44	50.70
	Part B	4.46	4.87	7.26	7.44	7.63
Upper Burnett – John Goleby Weir	Part A	41.82	45.49	48.21	49.44	50.70
	Part B	4.46	4.57	5.80	7.44	7.63
Upper Condamine –Sandy Creek or Condamine River	Part A	16.89	19.93	23.10	23.92	24.53
	Part B	6.33	6.49	6.66	9.34	11.70
Upper Condamine – North Branch	Part A	16.97	20.01	23.19	25.12	25.76
	Part B	19.14	19.63	20.13	22.04	25.41

Bulk water supply scheme	Price	2024–25 price	Draft prices			
			2025–26	2026–27	2027–28	2028–29
Upper Condamine – Risk A	Part A	13.86	16.82	19.92	23.17	23.87
	Part B	20.69	21.22	21.76	22.31	25.58

a This is a new tariff group as there was no government determined price for 2024–25.
Source: QCA analysis.

F.2 Distribution systems

Table 81 below shows the 2024–25 price and our draft prices for Sunwater's distribution systems.

Table 81: Existing price and our draft prices – distribution systems ($/ML, nominal)

Tariff group	Price	2024–25 price	Draft prices			
			2025–26	2026–27	2027–28	2028–29
Bundaberg channel	Part A	13.13	13.62	13.97	14.33	14.69
	Part B	1.08	1.41	1.44	1.48	1.52
	Part C	54.54	58.38	62.54	66.87	71.39
	Part D	58.08	47.83	49.05	50.30	51.58
	Fixed	**67.67**	**72.00**	**76.51**	**81.20**	**86.08**
	Volumetric	**59.16**	**49.24**	**50.49**	**51.78**	**53.10**
Burdekin channel	Part A	4.10	6.02	6.17	6.33	6.49
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	45.69	46.86	48.05	49.28
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**51.71**	**53.03**	**54.38**	**55.77**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**
Burdekin – Giru Groundwater	Part A	4.10	6.02	6.17	6.33	6.49
	Part B	0.36	0.37	0.38	0.39	0.40
	Part C	29.40	30.94	34.40	38.02	41.80
	Part D	16.43	16.85	17.28	17.72	18.17
	Fixed	**33.50**	**36.96**	**40.57**	**44.35**	**48.29**
	Volumetric	**16.79**	**17.22**	**17.66**	**18.11**	**18.57**
Burdekin – Glady's Lagoon (other than Natural Yield)	Part A	4.10	6.02	6.17	6.33	6.49
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	45.69	46.86	48.05	49.28
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**51.71**	**53.03**	**54.38**	**55.77**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**

Tariff group	Price	2024 -25 price	Draft prices			
			2025-26	2026-27	2027-28	2028-29
Lower Mary channel	Part A	6.64	6.74	6.91	7.08	7.27
	Part B	0.92	1.06	1.09	1.12	1.14
	Part C	59.07	63.25	67.54	72.00	76.64
	Part D	71.62	51.94	53.26	54.62	56.01
	Fixed	**65.71**	**69.99**	**74.45**	**79.08**	**83.91**
	Volumetric	**72.54**	**53.00**	**54.35**	**55.74**	**57.15**
Mareeba-Dimbulah – outside a relift up to 100 ML	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	57.63	64.36	68.68	73.17	75.47
	Part D	6.31	6.58	6.75	6.92	8.38
	Fixed	**63.53**	**67.75**	**72.15**	**76.73**	**79.12**
	Volumetric	**6.99**	**7.17**	**7.35**	**7.54**	**9.01**
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	50.82	57.38	61.52	64.90	66.55
	Part D	6.31	6.58	6.75	7.85	8.38
	Fixed	**56.72**	**60.77**	**64.99**	**68.46**	**70.20**
	Volumetric	**6.99**	**7.17**	**7.35**	**8.47**	**9.01**
Mareeba-Dimbulah – outside a relift over 500 ML	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	39.46	45.73	49.14	50.39	51.67
	Part D	6.31	6.58	7.19	8.16	8.38
	Fixed	**45.36**	**49.12**	**52.61**	**53.95**	**55.32**
	Volumetric	**6.99**	**7.17**	**7.79**	**8.78**	**9.01**
Mareeba-Dimbulah – river sup. Streams & Walsh River	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	27.16	32.28	33.11	33.96	34.82
	Part D	3.79	4.66	4.78	4.90	5.03
	Fixed	**33.06**	**35.67**	**36.58**	**37.52**	**38.47**
	Volumetric	**4.47**	**5.25**	**5.38**	**5.52**	**5.66**
Mareeba-Dimbulah – relift	Part A	5.90	3.39	3.47	3.56	3.65
	Part B	0.64	0.59	0.60	0.62	0.63
	Part C	51.02	57.59	61.73	66.04	70.54
	Part D	94.21	88.59	90.85	93.16	95.54
	Fixed	**56.92**	**60.98**	**65.20**	**69.60**	**74.19**
	Volumetric	**94.85**	**89.18**	**91.45**	**93.78**	**96.17**

Source: QCA analysis.

Appendix G: Draft price targets under RAB approach

G.1 Bulk water supply schemes

Table 82 below shows the 2024–25 price and draft price targets over the price path period for Sunwater's bulk schemes that are derived by applying Sunwater's proposed RAB approach.

Table 82: Existing price and draft price targets (RAB approach) – bulk schemes ($/ML, nominal)

Tariff group	Price	2024–25 price	Draft price targets			
			2025–26	2026–27	2027–28	2028–29
Barker Barambah River	Part A	38.51	43.55	44.66	45.80	46.97
	Part B	4.55	8.19	8.40	8.62	8.84
Barker Barambah Redgate Relift	Part A	38.51	44.18	45.31	46.46	47.65
	Part B	24.65	32.44	33.27	34.11	34.98
Bowen Broken Rivers	Part A	7.80	9.00	9.23	9.46	9.71
	Part B	8.04	7.08	7.26	7.45	7.64
Boyne River and Tarong	Part A	19.05	15.15	15.53	15.93	16.34
	Part B	2.14	3.36	3.45	3.53	3.62
Bundaberg	Part A	13.13	13.26	13.59	13.94	14.30
	Part B	1.08	1.41	1.44	1.48	1.52
Burdekin-Haughton	Part A	4.19	4.93	5.05	5.18	5.31
	Part B	0.37	0.75	0.77	0.78	0.80
Callide Valley	Part A	30.39	94.22	96.63	99.09	101.62
	Part B	9.50	12.80	13.12	13.46	13.80
Chinchilla Weir	Part A	21.32	25.91	26.57	27.25	27.94
	Part B	4.03	5.52	5.66	5.80	5.95
Cunnamulla	Part A	35.84	35.88	36.79	37.73	38.69
	Part B	2.07	1.41	1.45	1.49	1.52
Dawson Valley River (high priority)	Part A	56.91	34.48	35.36	36.26	37.19
	Part B	1.73	2.12	2.18	2.23	2.29
Dawson Valley River (medium priority)	Part A	23.13	10.27	10.53	10.80	11.08
	Part B	1.73	2.12	2.18	2.23	2.29
Eton (high B priority)	Part A	35.87	36.09	37.01	37.96	38.93
	Part B	4.39	5.36	5.50	5.64	5.78
Eton (high A priority local management supply)	Part A	133.91	133.49	136.89	140.38	143.96
	Part B	4.39	5.36	5.50	5.64	5.78
Eton risk priority[a]	Part B	n.a.	41.45	42.51	43.60	44.71

Bulk water supply scheme	Price	2024-25 price	Draft price targets			
			2025-26	2026-27	2027-28	2028-29
Lower Fitzroy	Part A	13.22	13.52	13.86	14.22	14.58
	Part B	1.08	1.63	1.67	1.72	1.76
Lower Mary – Mary Barrage	Part A	6.79	6.14	6.30	6.46	6.63
	Part B	0.94	1.06	1.09	1.12	1.14
Lower Mary – Tinana & Teddington	Part A	19.26	24.73	25.36	26.01	26.67
	Part B	12.93	17.58	18.03	18.49	18.96
Macintyre Brook	Part A	63.30	120.31	123.38	126.53	129.75
	Part B	4.39	7.94	8.14	8.35	8.56
Maranoa River	Part A	68.27	86.50	88.71	90.97	93.29
	Part B	71.03	103.37	106.00	108.71	111.48
Mareeba-Dimbulah – Access Charge	$/cust	751.50	770.66	790.31	810.46	831.13
Mareeba-Dimbulah – River Tinaroo/Barron	Part A	6.03	3.01	3.08	3.16	3.24
	Part B	0.70	0.59	0.60	0.62	0.63
Nogoa-Mackenzie (medium priority)	Part A	7.25	11.44	11.74	12.04	12.34
	Part B	0.92	1.93	1.98	2.03	2.08
Nogoa-Mackenzie (medium priority local management supply)	Part A	7.09	11.44	11.74	12.04	12.34
	Part B	0.90	1.93	1.98	2.03	2.08
Nogoa-Mackenzie (high priority)	Part A	41.73	72.78	74.64	76.54	78.49
	Part B	0.90	1.93	1.98	2.03	2.08
Pioneer River	Part A	21.90	22.88	23.46	24.06	24.67
	Part B	4.01	4.41	4.53	4.64	4.76
Proserpine River	Part A	15.16	17.38	17.83	18.28	18.75
	Part B	3.71	4.66	4.78	4.90	5.03
St George (medium priority)	Part A	24.48	25.97	26.63	27.31	28.00
	Part B	1.16	1.58	1.62	1.66	1.70
St George (high priority local management supply)	Part A	39.94	40.18	41.21	42.26	43.33
	Part B	1.16	1.58	1.62	1.66	1.70
Three Moon Creek	Part A	37.25	71.71	73.54	75.42	77.34
	Part B	5.22	10.93	11.21	11.49	11.78
Upper Burnett – Regulated Section of the Nogo/Burnett River	Part A	43.59	43.57	44.68	45.82	46.99
	Part B	4.46	7.08	7.26	7.44	7.63
Upper Burnett – John Goleby Weir	Part A	41.82	43.57	44.68	45.82	46.99
	Part B	4.46	7.08	7.26	7.44	7.63
Upper Condamine –Sandy Creek or Condamine River	Part A	16.89	22.70	23.28	23.87	24.48
	Part B	6.33	10.85	11.12	11.41	11.70

Bulk water supply scheme	Price	2024-25 price	Draft price targets			
			2025-26	2026-27	2027-28	2028-29
Upper Condamine – North Branch	Part A	16.97	23.84	24.44	25.07	25.71
	Part B	19.14	31.54	32.35	33.17	34.02
Upper Condamine – Risk A	Part A	13.86	22.13	22.70	23.27	23.87
	Part B	20.69	31.54	32.35	33.17	34.02

a This is a new tariff group as there was no government determined price for 2024–25.
Source: QCA analysis.

G.2 Distribution systems

Table 83 below shows the 2024–25 price and draft price targets over the price path period for Sunwater's distribution systems that are derived by applying Sunwater's proposed RAB approach.

Table 83: Existing price and draft price targets (RAB approach) – distribution systems ($/ML, nominal)

Tariff group	Price	2024-25 price	Draft price targets			
			2025-26	2026-27	2027-28	2028-29
Bundaberg channel	Part A	13.13	13.26	13.59	13.94	14.30
	Part B	1.08	1.41	1.44	1.48	1.52
	Part C	54.54	84.29	86.44	88.64	90.90
	Part D	58.08	47.83	49.05	50.30	51.58
	Fixed	**67.67**	**97.55**	**100.04**	**102.59**	**105.20**
	Volumetric	**59.16**	**49.24**	**50.49**	**51.78**	**53.10**
Burdekin channel	Part A	4.10	4.93	5.05	5.18	5.31
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	39.80	40.81	41.85	42.92
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**44.72**	**45.86**	**47.03**	**48.23**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**
Burdekin – Giru Groundwater	Part A	4.10	4.93	5.05	5.18	5.31
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	29.40	39.80	40.81	41.85	42.92
	Part D	16.43	19.93	20.44	20.96	21.50
	Fixed	**33.50**	**44.72**	**45.86**	**47.03**	**48.23**
	Volumetric	**16.79**	**20.68**	**21.21**	**21.75**	**22.30**
Burdekin – Glady's Lagoon (other than Natural Yield)	Part A	4.10	4.93	5.05	5.18	5.31
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	39.80	40.81	41.85	42.92
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**44.72**	**45.86**	**47.03**	**48.23**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**

Tariff group	Price	2024–25 price	Draft price targets			
			2025–26	2026–27	2027–28	2028–29
Lower Mary channel	Part A	6.64	6.14	6.30	6.46	6.63
	Part B	0.92	1.06	1.09	1.12	1.14
	Part C	59.07	117.51	120.51	123.58	126.73
	Part D	71.62	51.94	53.26	54.62	56.01
	Fixed	**65.71**	**123.65**	**126.81**	**130.04**	**133.36**
	Volumetric	**72.54**	**53.00**	**54.35**	**55.74**	**57.15**
Mareeba-Dimbulah – outside a relift up to 100 ML	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	57.63	41.09	42.14	43.21	44.31
	Part D	6.31	7.77	7.96	8.17	8.38
	Fixed	**63.53**	**44.10**	**45.22**	**46.37**	**47.55**
	Volumetric	**6.99**	**8.35**	**8.56**	**8.78**	**9.01**
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	50.82	36.23	37.16	38.11	39.08
	Part D	6.31	7.77	7.96	8.17	8.38
	Fixed	**56.72**	**39.24**	**40.24**	**41.27**	**42.32**
	Volumetric	**6.99**	**8.35**	**8.56**	**8.78**	**9.01**
Mareeba-Dimbulah – outside a relift over 500 ML	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	39.46	28.13	28.85	29.59	30.34
	Part D	6.31	7.77	7.96	8.17	8.38
	Fixed	**45.36**	**31.14**	**31.93**	**32.75**	**33.58**
	Volumetric	**6.99**	**8.35**	**8.56**	**8.78**	**9.01**
Mareeba-Dimbulah – river sup. Streams & Walsh River	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	27.16	18.96	19.44	19.94	20.45
	Part D	3.79	4.66	4.78	4.90	5.03
	Fixed	**33.06**	**21.97**	**22.53**	**23.10**	**23.69**
	Volumetric	**4.47**	**5.25**	**5.38**	**5.52**	**5.66**
Mareeba-Dimbulah – relift	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.64	0.59	0.60	0.62	0.63
	Part C	51.02	50.26	51.54	52.86	54.20
	Part D	94.21	88.59	90.85	93.17	95.54
	Fixed	**56.92**	**53.27**	**54.63**	**56.02**	**57.45**
	Volumetric	**94.85**	**89.18**	**91.45**	**93.78**	**96.17**

Source: QCA analysis.

Appendix H: Draft prices under a RAB approach

H.1 Bulk water supply schemes

Table 84 below shows the 2024–25 price and draft prices over the price path period for Sunwater's bulk schemes that are derived by applying Sunwater's proposed RAB approach.

Table 84: Existing price and draft prices (RAB approach) – bulk schemes ($/ML, nominal)

Tariff group	Price	2024–25 price	Draft prices			
			2025–26	2026–27	2027–28	2028–29
Barker Barambah River	Part A	38.51	42.10	44.66	45.80	46.97
	Part B	4.55	4.67	5.96	8.62	8.84
Barker Barambah Redgate Relift	Part A	38.51	42.10	45.31	46.46	47.65
	Part B	24.65	25.28	26.46	29.87	33.44
Bowen Broken Rivers	Part A	7.80	9.00	9.23	9.46	9.71
	Part B	8.04	7.08	7.26	7.45	7.64
Boyne River and Tarong	Part A	19.05	15.15	15.53	15.93	16.34
	Part B	2.14	3.36	3.45	3.53	3.62
Bundaberg	Part A	13.13	13.26	13.59	13.94	14.30
	Part B	1.08	1.41	1.44	1.48	1.52
Burdekin-Haughton	Part A	4.19	4.93	5.05	5.18	5.31
	Part B	0.37	0.75	0.77	0.78	0.80
Callide Valley	Part A	30.39	33.77	37.30	40.99	44.85
	Part B	9.50	9.74	9.99	10.25	10.51
Chinchilla Weir	Part A	21.32	24.47	26.57	27.25	27.94
	Part B	4.03	4.13	5.43	5.80	5.95
Cunnamulla	Part A	35.84	35.88	36.79	37.73	38.69
	Part B	2.07	1.41	1.45	1.49	1.52
Dawson Valley River (high priority)	Part A	56.91	34.48	35.36	36.26	37.19
	Part B	1.73	2.12	2.18	2.23	2.29
Dawson Valley River (medium priority)	Part A	23.13	10.27	10.53	10.80	11.08
	Part B	1.73	2.12	2.18	2.23	2.29
Eton (high B priority)	Part A	35.87	36.09	37.01	37.96	38.93
	Part B	4.39	5.36	5.50	5.64	5.78
Eton (high A priority local management supply)	Part A	133.91	133.49	136.89	140.38	143.96
	Part B	4.39	5.36	5.50	5.64	5.78
Eton risk priority[a]	Part B	n.a.	41.45	42.51	43.60	44.71
Lower Fitzroy	Part A	13.22	13.52	13.86	14.22	14.58
	Part B	1.08	1.63	1.67	1.72	1.76

Bulk water supply scheme	Price	2024-25 price	Draft prices			
			2025-26	2026-27	2027-28	2028-29
Lower Mary – Mary Barrage	Part A	6.79	6.14	6.30	6.46	6.63
	Part B	0.94	1.06	1.09	1.12	1.14
Lower Mary – Tinana & Teddington	Part A	19.26	22.36	25.36	26.01	26.67
	Part B	12.93	13.26	13.83	16.92	18.96
Macintyre Brook	Part A	63.30	67.52	71.91	76.48	81.24
	Part B	4.39	4.50	4.62	4.73	4.86
Maranoa River	Part A	68.27	72.62	77.14	81.84	86.74
	Part B	71.03	72.84	74.70	76.60	78.56
Mareeba-Dimbulah – Access Charge	$/cust	751.50	770.66	790.31	810.46	831.13
Mareeba-Dimbulah – River Tinaroo/Barron	Part A	6.03	3.01	3.08	3.16	3.24
	Part B	0.70	0.59	0.60	0.62	0.63
Nogoa-Mackenzie (medium priority)	Part A	7.25	10.04	11.74	12.04	12.34
	Part B	0.92	0.94	1.98	2.03	2.08
Nogoa-Mackenzie (medium priority local management supply)	Part A	7.09	9.88	11.74	12.04	12.34
	Part B	0.90	0.92	1.98	2.03	2.08
Nogoa-Mackenzie (high priority)	Part A	41.73	45.40	49.23	53.22	57.39
	Part B	0.90	0.92	0.95	0.97	1.00
Pioneer River	Part A	21.90	22.88	23.46	24.06	24.67
	Part B	4.01	4.41	4.53	4.64	4.76
Proserpine River	Part A	15.16	17.38	17.83	18.28	18.75
	Part B	3.71	4.57	4.78	4.90	5.03
St George (medium priority)	Part A	24.48	25.97	26.63	27.31	28.00
	Part B	1.16	1.58	1.62	1.66	1.70
St George (high priority local management supply)	Part A	39.94	40.18	41.21	42.26	43.33
	Part B	1.16	1.58	1.62	1.66	1.70
Three Moon Creek	Part A	37.25	40.80	44.52	48.39	52.43
	Part B	5.22	5.35	5.49	5.63	5.77
Upper Burnett – Regulated Section of the Nogo/Burnett River	Part A	43.59	43.57	44.68	45.82	46.99
	Part B	4.46	7.08	7.26	7.44	7.63
Upper Burnett – John Goleby Weir	Part A	41.82	43.57	44.68	45.82	46.99
	Part B	4.46	6.49	7.26	7.44	7.63
Upper Condamine –Sandy Creek or Condamine River	Part A	16.89	19.93	23.10	23.87	24.48
	Part B	6.33	6.49	6.66	9.39	11.70
Upper Condamine – North Branch	Part A	16.97	20.01	23.19	25.07	25.71
	Part B	19.14	19.63	20.13	22.09	25.47

Bulk water supply scheme	Price	2024-25 price	Draft prices			
			2025-26	2026-27	2027-28	2028-29
Upper Condamine – Risk A	Part A	13.86	16.82	19.92	23.17	23.87
	Part B	20.69	21.22	21.76	22.31	25.58

a This is a new tariff group as there was no government determined price for 2024–25.
Source: QCA analysis.

H.2 Distribution systems

Table 85 below shows the 2024–25 price and draft prices over the price path period for Sunwater's distribution systems that are derived by applying Sunwater's proposed RAB approach.

Table 85: Existing price and draft prices (RAB approach) – distribution systems ($/ML, nominal)

Tariff group	Price	2024-25 price	Draft prices			
			2025-26	2026-27	2027-28	2028-29
Bundaberg channel	Part A	13.13	13.26	13.59	13.94	14.30
	Part B	1.08	1.41	1.44	1.48	1.52
	Part C	54.54	58.74	62.92	67.26	71.78
	Part D	58.08	47.83	49.05	50.30	51.58
	Fixed	**67.67**	**72.00**	**76.51**	**81.20**	**86.08**
	Volumetric	**59.16**	**49.24**	**50.49**	**51.78**	**53.10**
Burdekin channel	Part A	4.10	4.93	5.05	5.18	5.31
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	39.79	40.81	41.85	42.92
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**44.72**	**45.86**	**47.03**	**48.23**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**
Burdekin – Giru Groundwater	Part A	4.10	4.93	5.05	5.18	5.31
	Part B	0.36	0.37	0.38	0.39	0.45
	Part C	29.40	32.03	35.52	39.17	42.92
	Part D	16.43	16.85	17.28	17.72	18.17
	Fixed	**33.50**	**36.96**	**40.57**	**44.35**	**48.23**
	Volumetric	**16.79**	**17.22**	**17.66**	**18.11**	**18.62**
Burdekin – Glady's Lagoon (other than Natural Yield)	Part A	4.10	4.93	5.05	5.18	5.31
	Part B	0.36	0.75	0.77	0.78	0.80
	Part C	45.87	39.79	40.81	41.85	42.92
	Part D	24.88	19.93	20.44	20.96	21.50
	Fixed	**49.97**	**44.72**	**45.86**	**47.03**	**48.23**
	Volumetric	**25.24**	**20.68**	**21.21**	**21.74**	**22.30**

Tariff group	Price	2024 -25 price	Draft prices			
			2025-26	2026-27	2027-28	2028-29
Lower Mary channel	Part A	6.64	6.14	6.30	6.46	6.63
	Part B	0.92	1.06	1.09	1.12	1.14
	Part C	59.07	63.85	68.15	72.62	77.28
	Part D	71.62	51.94	53.26	54.62	56.01
	Fixed	**65.71**	**69.99**	**74.45**	**79.08**	**83.91**
	Volumetric	**72.54**	**53.00**	**54.35**	**55.74**	**57.15**
Mareeba-Dimbulah – outside a relift up to 100 ML	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	57.63	41.09	42.14	43.21	44.31
	Part D	6.31	7.76	7.96	8.16	8.38
	Fixed	**63.53**	**44.10**	**45.22**	**46.37**	**47.55**
	Volumetric	**6.99**	**8.35**	**8.56**	**8.78**	**9.01**
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	50.82	36.23	37.16	38.11	39.08
	Part D	6.31	7.76	7.96	8.16	8.38
	Fixed	**56.72**	**39.24**	**40.24**	**41.27**	**42.32**
	Volumetric	**6.99**	**8.35**	**8.56**	**8.78**	**9.01**
Mareeba-Dimbulah – outside a relift over 500 ML	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	39.46	28.13	28.85	29.59	30.34
	Part D	6.31	7.76	7.96	8.16	8.38
	Fixed	**45.36**	**31.14**	**31.93**	**32.75**	**33.58**
	Volumetric	**6.99**	**8.35**	**8.56**	**8.78**	**9.01**
Mareeba-Dimbulah – river sup. Streams & Walsh River	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.68	0.59	0.60	0.62	0.63
	Part C	27.16	18.96	19.45	19.94	20.45
	Part D	3.79	4.66	4.78	4.90	5.03
	Fixed	**33.06**	**21.97**	**22.53**	**23.10**	**23.69**
	Volumetric	**4.47**	**5.25**	**5.38**	**5.52**	**5.66**
Mareeba-Dimbulah – relift	Part A	5.90	3.01	3.08	3.16	3.24
	Part B	0.64	0.59	0.60	0.62	0.63
	Part C	51.02	50.26	51.55	52.86	54.21
	Part D	94.21	88.59	90.85	93.16	95.54
	Fixed	**56.92**	**53.27**	**54.63**	**56.02**	**57.45**
	Volumetric	**94.85**	**89.18**	**91.45**	**93.78**	**96.17**

Source: QCA analysis.

Appendix I: Matters considered by the QCA

In this appendix, we explain how we have considered each of the matters we are required to consider in:

- section 26 of the QCA Act
- the referral (paragraph C), in accordance with section 24(1)(b) of the QCA Act.[436]

Relevant matter	QCA consideration
Economic efficiency matters	
The need for efficient resource allocation (QCA Act, s. 26(1)(a))	The price targets reflect our assessment of the prudent and efficient costs of supplying irrigation services for each tariff group (Chapter 9). If prices are set according to the price target, this would generally promote efficient consumption and investment decisions by customers and efficient investment by Sunwater. It may also promote the efficient trading of water access entitlements (WAEs). However, the efficiency benefits may not be realised because we recommend prices that reflect the government's pricing principles (Chapter 10), which means that many customers will pay prices that are below cost-reflective levels. As the under-recovered costs are covered by a community service obligation (CSO) payment to Sunwater, this may impose redistribution and efficiency costs on the broader economy.
The need to promote competition (QCA Act, s. 26(1)(b))	Competition would be promoted if prices were set according to the price targets (Chapter 9), because there would be an incentive for customers to trade WAEs to their highest value use. In addition, consistent with competitive neutrality principles, Sunwater should not have a competitive advantage over private sector firms due to government ownership. In accordance with these principles, we determine costs that reflect the tax obligations and rate of return of a benchmark efficient firm operating in the private sector (Chapters 6 and 7).
The cost of providing the goods or services in an efficient way, having regard to relevant interstate and international benchmarks (QCA Act, s. 26(1)(d)(i))	We assess Sunwater's proposed costs for prudency and efficiency. We have regard to benchmarking, where we consider this to be appropriate, including considering benchmark analysis undertaken by AtkinsRéalis to inform potential efficiency gains for opex and renewals (Chapters 4 and 5). We also consider normalised weighted average cost of capital (WACC) outcomes (Chapter 6).
The standard of the goods or services, including quality, reliability and safety (QCA Act, s. 26(1)(d)(iii))	In assessing the prudency and efficiency of costs, we consider Sunwater's operating environment, regulatory obligations and agreements with customers about service quality (Chapters 4 and 5).

[436] We may also consider other matters (QCA Act, s. 26(3)).

The appropriate rate of return on assets (QCA Act, s. 26(1)(e))	We determine an appropriate rate of return by estimating the WACC, which is the rate of return on investment that compensates the benchmark efficient firm for the regulatory and commercial risks associated with providing access to the service (Chapter 6).
Considerations of demand management (QCA Act, s. 26(1)(h))	Higher volumetric prices provide a financial incentive for customers to reduce consumption. In determining the price target for each tariff group, we aim to broadly align the tariff structure with the cost structure by allocating fixed costs to the fixed tariff components and variable costs to the volumetric tariff components (Chapter 9). However, the application of the pricing principles may mean the volumetric prices we recommend are lower than the corresponding volumetric components of the price target (Chapter 10).
The need for pricing practices not to discourage socially desirable investment or innovation by government agencies and persons carrying on non-government business activities (QCA Act, s. 26(1)(j))	The price targets reflect our assessment of the prudent and efficient costs of supplying irrigation services for each tariff group (Chapter 9). If prices are set according to the price target, this would promote efficient investment by Sunwater. However, inefficient investment may be promoted because we recommend prices that reflect the pricing principles (Chapter 10).
The fixed and variable nature of the underlying costs in relation to tariff structures (QCA Act, s. 24(1)(b); referral, para. C(1.1)(a))	In determining the price target for each tariff group, we aim to broadly align the tariff structure with the cost structure by allocating fixed costs to the fixed tariff components and variable costs to the volumetric tariff components (Chapter 9). The application of the pricing principles may mean the fixed and volumetric prices we recommend are lower than the corresponding fixed and volumetric components of the price target (Chapter 10). The government provides a CSO payment to Sunwater when prices are below the price target.
Business/industry-specific matters	
The actual cost of providing the goods or services (QCA Act, s. 26(1)(d)(ii))	Our assessment of the prudency and efficiency of costs was informed by information on actual costs provided by Sunwater (Chapters 4 and 5).
The effect of inflation (QCA Act, s. 26(1)(f))	Inflation is an input to the calculations of forecast opex, the renewals allowance, the price targets and recommended prices. We explain our approach to estimating inflation in Chapter 6.
Legislation and government policies relating to occupational health and safety and industrial relations (QCA Act, s. 26(1)(l))	We expect the opex allowance we determine will provide Sunwater with sufficient revenue to satisfy obligations relating to occupational health and safety and industrial relations (Chapters 4 and 5).
Any directions given by the government to the government agency by which the monopoly business activity is carried on (QCA Act, s. 26(1)(n))	Where relevant to our assessment, we consider directions that are given by the government to Sunwater.

Customer/social impact matters	
The protection of consumers from abuses of monopoly power (QCA Act, s. 26(1)(c))	The price targets reflect our assessment of the prudent and efficient costs of supplying irrigation services for each tariff group (Chapter 9). This prevents Sunwater from earning excessive profits due to its monopoly position. Irrigation customers are further protected from the exercise of monopoly power because we recommend prices that reflect the pricing principles, which means that many customers would pay prices below the price target (Chapters 10 and 11).
Social welfare and equity considerations including community service obligations, the availability of goods and services to consumers and the social impact of pricing practices (QCA Act, s. 26(1)(i)) Economic and regional development issues, including employment and investment growth (QCA Act, s. 26(1)(m))	In accordance with the referral, our draft price recommendations are consistent with the pricing principles, which constrain annual price increases, whether customers are transitioning to the price target or at the price target. Many customers would pay prices below the price target (Chapters 9 and 10). The price targets are no higher than necessary to enable Sunwater to recover its prudent and efficient costs of supplying irrigation services over time. Our recommended irrigation prices, combined with CSO payments to make up the revenue shortfall, will provide Sunwater with sufficient revenue to continue to invest in providing irrigation services, which benefits irrigation customers and regional communities. In Chapter 11, we consider the impacts of our draft price recommendations on irrigation customers and the estimate of the revenue shortfall. We also discuss stakeholder concerns about the affordability of irrigation prices, and the broader impacts on business viability and regional development.
Customer agreements on costs and/or prices proposed by the businesses, where consistent with the requirements in the referral (QCA Act, s. 24(1)(b); referral, para. C(1.1)(c))	Sunwater's proposal did not identify any agreements reached with customers, although we understand that Sunwater may be collaborating with customers on an alternative proposal for an electricity cost pass-through (ECPT) mechanism (Chapter 12).
The need to, where possible, provide revenue and pricing outcomes that are both simple and transparent for customers (QCA Act, s. 24(1)(b); referral, para. C(1.1)(b)(ii))	In accordance with the referral, our draft price recommendations are consistent with the pricing principles, which constrain annual price increases, whether customers are transitioning to the price target or at the price target (Chapters 9 and 10). Prices in all schemes reflect a simple fixed and volumetric tariff structure, which is well understood by customers. The Mareeba-Dimbulah scheme is the only scheme with a fixed charge per customer, which applies in addition to the fixed charge per megalitre of WAE that applies in all schemes (Chapters 9 and 10). Sunwater's proposal to introduce an ECPT mechanism would increase pricing complexity and appears to be inconsistent with the pricing principles (Chapter 12). We provide information to help customers understand the potential impacts of our draft price recommendations (Chapters 10 and 11, and the scheme information sheets available on our website).

Environmental obligations	
The impact on the environment of prices charged by the government agency or other person carrying on the monopoly business activity (QCA Act, s. 26(1)(g)).	Higher volumetric prices provide a financial incentive for customers to reduce consumption. We allow Sunwater to recover the prudent and efficient costs of meeting regulatory and legislative requirements, including those related to environmental obligations. For example, we allow Sunwater to recover costs that are necessary to meet its obligations under the water planning framework, which includes environmental management rules in the resource operations licence and environmental flow objectives in water plans (Chapters 4 and 5).
Legislation and government policies relating to ecologically sustainable development (QCA Act, s. 26(1)(k)).	
Other matters	
The need to balance the legitimate commercial interests of the businesses with the interests of their customers (QCA Act, s. 24(1)(b); referral, para. C(1.1)(b)(i)).	In accordance with the referral, our draft price recommendations are consistent with the pricing principles, which constrain annual price increases, whether customers are transitioning to the price target or at the price target (Chapters 9 and 10). We expect that Sunwater would recover sufficient revenue to recover its prudent and efficient allowable costs through a combination of irrigation prices and CSO payments. However, as Sunwater does not earn a return on pre-2000 assets or dam safety upgrade capex, this provides an additional subsidy to customers.
Water pricing determinations (QCA Act, s. 26(2)).	Not applicable, as there are no water pricing determinations in effect.[a]

a Water pricing determinations are pricing determinations for private sector water supply activities that have been declared under Part 5A of the QCA Act. No activities have been declared under Part 5A.

Appendix J: Response to other stakeholder comments

In table 86 below, we address additional issues that stakeholders raised in submissions that have not been addressed elsewhere in this report.

Table 86: QCA response to other stakeholder comments

Issue raised	QCA response
For the Bundaberg Channel tariff group, the QCA should consider targeting the subsidy exclusively to the Part C tariff component, because the price target for the other tariff components will be met early in the period.[437]	We recommend prices that are consistent with the pricing principles. The subsidy is an outcome of the application of the pricing principles. It would be inconsistent with the pricing principles to recommend prices that target the subsidy to specific tariff components.
The QCA should review the calculations in Sunwater's proposal to ensure the government policy of no profit from irrigation is reflected in the calculations.[438]	We recommend prices that are consistent with the pricing principles, which sets a transitional path towards the price target. The price target is set to recover allowable costs and does not preclude Sunwater from earning a commercial rate of return on assets (although there is no return on assets built before 1 July 2000).[439] For those tariff groups that are paying prices below the price target (because they are still on a transitional path), Sunwater will be compensated for the shortfall.
Farmers with Burdekin Water allocations should face the same costs as other farmers in the Lower Burdekin area. They should not be charged twice (i.e. by Sunwater and Lower Burdekin Water) for the same water.[440]	Our review covers prices for irrigation services provided by Sunwater to recover its costs of operating, maintaining and renewing the Burdekin-Haughton scheme. Prices charged by Lower Burdekin Water are outside the scope of this review.

[437] Bundaberg Regional Irrigators Group, sub. 41, p. 6.
[438] Eton Irrigation Co-operative Ltd (EICL), sub. 49, pp. 12–13.
[439] Chapter 6 explains how we determine the rate of return.
[440] Lower Burdekin Riparian Growers, sub. 53, pp. 1–2.

Glossary

2012 review	the QCA's review of irrigation prices charged by Sunwater for the period 1 July 2012 to 30 June 2017, which was completed in May 2012
2020 review	the QCA's review of irrigation prices charged by Seqwater and Sunwater for the period 1 July 2020 to 30 June 2024, which was completed in January 2020
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACFA	Australian Cane Farmers Association Limited
ACL	AgForce Cane Board Limited
AER	Australian Energy Regulator
BRIA Irrigators	Burdekin River Irrigation Area Irrigators Limited
BRIG	Bundaberg Regional Irrigators Group
CAC	customer advisory committee
Capex	capital expenditure
CASPr	Customer and Stakeholder Project
CHCGIA	Central Highlands Cotton Growers and Irrigators Association
CPI	consumer price index
CRA	comprehensive risk assessment
CRM	customer records management
CSO	community service obligation
DAV	declared asset value
EA	enterprise agreement
ECPT	electricity cost pass-through
EICL	Eton Irrigation Cooperative Limited
EOI	expression of interest
ESC	Essential Services Commission
FTE	full-time equivalent
GBGA	Giru Benefited Groundwater Area
GST	goods and services tax
HBS	Haughton balancing storage
HMC	Haughton main channel
HUF	headworks utilisation factor

IAC	irrigator advisory committee
ICT	information and communication technology
IPART	Independent Pricing and Regulatory Tribunal
IROL	interim resource operations licence
ISR	industrial special risk
KBR	Kellog, Brown and Root
LMA	local management arrangement
MDB	Murray-Darling Basin
MRP	market risk premium
NSP	network service plan
Opex	operating expenditure
PFE	peak flow entitlement
PV	Photovoltaic
QCA	Queensland Competition Authority
QCAR	Queensland Cane Agriculture and Renewables Limited
QCA Act	*Queensland Competition Authority Act 1997*
QFF	Queensland Farmers' Federation
QTC	Queensland Treasury Corporation
RAB	regulatory asset base
RBA	Reserve Bank of Australia
RFI	request for information
RFO	request for offer
ROL	resource operations licence
SaaS	software as a service
SAP	Systems, Applications and Products
SCADA	supervisory control and data acquisition
SPP	service and performance plan
Totex	total expenditure
WACC	weighted average cost of capital
WAE	water access entitlement
WPI	wage price index
WSI	water sharing index
WSS	water supply scheme

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